

CHAPTER - I

INTRODUCTION

1.1 General Background

The speedy development of any country in this modern era depends upon to some extent with financial activities of the country. Financial activities play the role of catalyst in the process of economic development of the country. In Nepal financial sectors (banks, finance companies etc.) play 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 in 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 (Source, Government of Nepal, Department of Statistics, Statistical Index 2010) .

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 (Source, Nepal Rastra Bank, Barsik Smarika 2010).

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 its tasks. Mainly two types of institutions such as profit oriented and service-oriented institutions 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 does not just happen, profits are managed (Lynch & Williamson, 1989). 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 objective of a firm and to make it reliable service should be rendered 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 within the framework of planning. Planning means deciding in advance what is to be done in the 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 (Welsch, et. al., 2001). The term comprehensive profit planning and control is defined as a systematic and formalized approach for performing significant phase of the management planning and control function (Welsch, et.al., 2001)

- ❖ 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 Profit of sample banks

Everest Bank Limited:

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer-friendly services through its Branch Network. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS), which enables customers for operational transactions from any branches.

With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and U K. Bank has set up its representative offices at New Delhi (India) to support Nepalese citizen remitting money and advising banking related services.

Recognizing the value of offerings a complete range of services, we have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL

Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals.

Nabil Bank Limited

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Bangalore, India, Internet banking system and Telebanking system

Himalayan bank Limited

HBL a joint venture with Habib Limited, Pakistan started its business from 18th January 1993. It was established with the authorized capital of 240 million divided into 1.2 million in shares of 100 each, out of which 60 million was paid from retained earnings of the years 1994/1995. Share subscription of this company comprises of 51% by promoters shareholders, 20% by Habib Bank Ltd, Pakistan, 14% by financial institution (Employment provident fund) & 15% by Nepalese public shareholders. HBL is the first commercial bank of Nepal with maximum shareholders. HBL is the First First commercial bank of Nepal with maximum share holding by the Nepalese private sectors. It is one of the joint venture banks among nine joint ventures, the July 2004 edition of the book published in England named "The Bankers Almanac" has declared HBL as Nepal's No.1 Bank and

it has also been awarded “National Excellence Award’ .Besides commercial activities ,book also offers industrial & Merchant banking.

1.3 Statement of the Problem

The profit planning 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 fulfilment 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 Himalayan Bank limited. In this ground, the study deals with the following issues for the purpose of this study.

-) What is the relationship between investment, loan and advances with total deposit, net profit and outside assets?
-) 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?

1.4 Objectives of the Study

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

-) To find out the relationships between total investment, loan and advances, deposit, net profit and outside assets.

-) 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.

1.5 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.

1.6 Limitations of the Study

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

1. This study focuses on profit planning control and its application in the NABIL, EBL and HBL.
2. Only profit planning aspect of Everest bank, Nabil Bank and Himalayan Bank has been analyzed.
3. This study covers the related data of the banks from FY 2005 to 2009.
4. The study is mostly based on secondary sources of data.

1.7 Organization of the study

The study is divided into the following five chapters.

Chapter- I Introduction

Chapter- II Conceptual Framework and Review of Literature

Chapter- III Research methodology

Chapter - IV Data Presentation and Analysis

Chapter - V Summary, Conclusion and Recommendations.

The first chapter deals the background of the study, brief profile of the NABIL, HBL and EBL, statement of problem, objectives of the study, significance of the study, limitation of the study and organization of the study etc.

Second chapter deals with the review of available literature. It takes in review of related books, journals, articles and previous unpublished Master Degree Dissertation etc.

The third chapter is deals with the research methodology employed in this study. It includes research design, population and sample, data collection procedure and sources of data, data analysis techniques etc.

The fourth chapter is the important chapter of the study which implies the presentation and analysis of data as well as major findings of the study.

The fifth and last chapter covers the summary of the study, the main conclusion that flows from the study and offers some recommendations as well as suggestions for further improvement. Bibliography, appendix and other supporting documents have also been incorporated at the end of the study.

CHAPTER-II

REVIEW OF LITERATURE

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, focus on assigned responsibilities likewise enhance the degree of communication essential to sound management (Welsch, et.al.,2001:215).

Profit Planning is an example of short range planning. This planning focuses on improving the profit especially from a particular product over a relatively short period of time. Therefore as used here, it is not the same as corporate planning of a cost reduction program (Terry, 1968; 245).

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 factors affecting the profit obtained from a single product; the planner is given the right to probe 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 in 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 & Cowie, 1992;63).

According to some theories, profits are the factor payment for taking 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, & 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., 1992;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.

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 some thing 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 feed back (Drucker, 1964;165). It is a decision making process. Such decision should be related about:

- Determination of goals, objectives and strategies.
- Level and direction of capital expenditure.
- 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 the 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 along period makes planning of questionable value” (Horold &Cyric, 1964;45).

2.1.5 Role of Forecasting in Planning

Forecasting is an integral part of decision making activities of management. An organization establishes goals and objectives seek to predict the environmental factors. The need for forecasting is increasing as management attempts to decrease its dependence on change and become more scientific in dealing with its environment. Since each area of organization is related to others. A good or bad for cast can effect the entire organization. Planning or budgeting is not nearly forecasting although forecasts from the basis of budgeting. Forecasting is the estimate of the future environment with in 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 or units are to assume responsibility and be held accountable.

Forecasting is indispensable in planning. Forecast is statement of expected future conditions definite statements of what will actually happen are patently impossible.

Expectation depends upon the assumptions made. If the assumptions are possible the forecast has a better chance of being useful forecasting assumptions and techniques vary with the kind of planning needed.

The short-term forecasting is needed in budget making. A budget set for the following year will be much useful. It is regarded to sales levels, which will eventuate rather than current sales level. As budget distributed according to current sales may establish policy as to lines of emphasis, but will obviously required successive adjustment if sales levels changes (Bratt, 1985;246).

2.1.6 Planning Verses Forecasting

Planning is clearly district from forecasting. Forecasting one of the essential elements of planning is a prediction of what will happen on the basis of certain assumption. Planning is an attempt to determine what should happen and what will make it likely to happen. A forecast is not a plan, rather it is a statement of and or quantified assessment of future conditions about a particular subject (sales revenue) based on one of more explicit assumption. A forecast should be viewed as only one input into the development of a sales plan. The management of a company may accept modify or eject the forecast. In

contrast a sales plan incorporates management decision that are based on the forecast, other inputs and management judgment about such related items as sales volume, price, production and sales, effort and financing (Welsch, et. al., 2001;109).

2.1.7 Purposes of Profit Planning

Some purposes for the application of profit planning are:

1. To state the firms expectations in clear and facilitate for attainability.
2. To communicate expectations to all concerned with the management of the firm so that they are understood, supported and implanted.
3. To provide a detail plan of action for reducing uncertainty and for the proper direction of individual and group efforts to achieve goals.
4. To coordinate the activities and efforts in such as way the use of resource in maximized.
5. To provide a means of measuring the performance of individuals and units and to supply information on the basis of which the necessary corrective action can be taken.

There is controversy is term of profit. It is defined by different people from different aspect. According to RM Lynch and Robert Williamson usually profits does not just happen, profits are managed. Before we can make intelligent approaches to the management concept of profit, there are after all, several different interpretations of the term. Profit, an economist says that profit is the reward of entrepreneurship for risk taking. A labour leader might say that it is a measure of how efficiently labour has produced and that it provides a base for negotiating a wage increase. An inverter views it as a gauge for return on his/her investment. An internal revenue agent might regard, it is the base for determining income taxes. The accountant will define it simply as the excess of firm's revenue over the expenses of producing revenue in a given period. Management thinks of profit as a tangible expression of the goals it has set for the firm, a measure of the performance towards the achievement of it, as a means of measuring the health, growth and continuity of the economy (Lynch &Williamson,1989;249).

2.1.8 Long Range and Short Range Profit Plan

There are two types of profit plans developed; one strategic (long-range) and another tactical (short-range). The former profit plan takes a time horizon of 5 to 20 years and the later for short period. The long range planning is a picture of more summary data. A part of this plan is more or less informal as presented by tentative commitments made by the executive committee in the organizational planning seasons. The formal portion of long-range profit plan includes the following component detailed by each year.

-) Income statement
-) Balance Sheet
-) Capital Expenditure Plan
-) Personnel Requirements
-) Research Plan and
-) Long Range Market Penetration Plan

Thus the long range profit plan covers all the key areas of anticipated activity; sales, expenses, research and development, capital expenditure, cash, profit and return on investment. The short range tactical profit plan shows the primarily annual results, the detail by months, responsibility and products. In an organization these annual summaries should be prepared to provide a general understanding of the profit plan and to provide an overall view of the comprehensive short range profit plan.

It is possible for the firms to develop these two profit plans for all aspects of the operations (Welsch, et.all., 2001;524). Assuming participatory planning and receipt of the executive instruments, the manager of each responsibility canter will immediately initiate activities within his or her responsibility centre to develop strategic profit plan and tactical profit plan. Certain format and normally the financial function should establish the general format, amount of detail, and other relevant procedural and format requirements essentially for aggregation of the plan. All these activities must be coordinating among the centres in conformity with the organization structure” (Welsch, et.al., 2001;523).

The preparation of long-range profit planning in addition to short range profit planning is also viewed as a total planning concept of business. Long range planning is essential to

maintain the annual profit at improving level. The ultimate measure of the success of a business is generally based on growth in the volume of sales, increasing return on capital investment, efficient organization and these are all long-term considerations.

2.1.9 Budgeting and Budget

Budgeting is a forward planning and involves the preparation in advance for the quantitative as well as financial statement to 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 terms 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 a plan in respect of future financial requirements, the plan when presented in written form is called budget. Budgeting in fact 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.

2.1.10 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,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 polices 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 top 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.

2.1.11 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.

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 become budgets. The sounder are the forecasts better results would come out of the budgeting system.

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.

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 an important role in budget co-ordination and operation.

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.

Clearly Defined Business Policies

Every budget reflects the business policies formulated by the top management. In other words budgets should always prepare taking into 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.

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.

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.

Good 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.

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.

2.1.12 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 endeavours. 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;

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 behaviour management program

2.1.13 Profit Planning and Control Process

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 concepts through a variety of approaches techniques and sequential steps. These steps are outlined in this study in the following manner.

Identification and Evaluation of External Variables

The variable identification phase of the PPC process focuses on (1) identifying and (2) evaluating the effects of the external variables. Management planning must focus on how to manipulate controllable variables and how to work with the existing situation of non-controllable variables. Variables, which have a direct and significant impact on the enterprises, are called relevant variables. Variables may have their different relevancy according to the market nature. For the enterprises purpose the external relevant variables are, population, G.N.P. competitive activities product line, and industry sales. And so far internal variables are concerned employees, capital, research productivity,

pricing, operating costs, advertisements etc. A particularly significant phase of this analysis includes an evaluation of the present strength and weakness of the enterprises. The comprehensive PPC approach is based on the expectation that these significant aspects of operations will be critically analyzed and evaluated periodically and in an orderly manner. (Welsch, et.al., 2001; 235).

Development for the Objectives of the Enterprises

Development of the broad objectives of the enterprises is a responsibility of executive management. Based on a realistic evaluation of the relevant variables and an assessment of the strength and weakness of the organization, executive management, can specify or restate this phase of the PPC process. The statement of broad objectives should express the mission, vision and ethical character of the enterprise. Its purpose is to provide enterprise identify continuity of purpose is to provide and identification. One research study listed the purpose of the statement essentially as follows.

1. To define of the purpose of the Co.
2. To clarify the philosophy character of the Co.
3. To create particular climate with in the business.
4. To set down a guide for managers so that the decisions they make will reflect the best interest of the business with fairness and justice to those concerned.

Development of Specific Goals for the Enterprises

This component of a comprehensive PPC process is to bring the statement of broad objectives into sharper focus and to move from the realm of general information to more specific planning information. It provides both narrative and quantitative goals that are definite and measurable. These are specific goals that relate to the enterprises as a whole and to the major responsibility centres.

These goals should be developed by executive management as the second component of the substantive plan for the up coming budget year. Executive management should exercise leadership in this planning phase so that there will be a realistic and clearly articulated framework with in which operations will be conducted toward common goals.

Development and Evaluation of Company Strategy

Companies' strategies are the basis thrusts ways and tactics that will be used to attain planned objectives and goals. Some examples of basic strategies are:

-) Increase long-term market penetration by using technology to development new products and innovation the product.
-) Emphasize product equality and price for the top market.
-) Expand market the company will not enter foreign markets in the foreseeable future.
-) Market with low price to expand value.
-) Use both institutional and local advertisement program to build market share.
-) Improve employee moral and productivity by initiating a behaviour management program.

Executive Management Planning Instruction

Executive management explicitly establishes a planning foundation that is a condition precedent to the movement in the planning foundation the statement of planning guidelines is set as executive management instructions and is disseminated in order to initiate a sophisticated and potent move from broad corporate planning to the development of profits plans by each major responsibility centre in the enterprises. It is simply a communication steps from executive management to the lower levels of management and it should adopt the fundamentals of full communication.

Preparation and Evaluation of Project Plans

Periodic plans and project plans are different in feature and functions. It will be recalled that project plans encompasses different time horizons because each project has a unique time dimension, they encompasses such items as plans for improvements of present, products, view and expanded physical facilities, entrance in to new industrial unit from products and industries and new technology and other major activities that can be separately identified for planning purpose. The nature of projects is such that they must be planned as separate units.

Consistent with this approach during the formal planning cycle, management must evaluate and decide upon the plan status of each project in process and select any new projects to be initiated during the time dimension covered by the upcoming strategies and tactical profit plans.

Development of Strategies and Tactical Profit Plan

When the managers of the various responsibility centres in the enterprises receive the Executive management planning instruction and the projects plans, they can begin intensive activities to develop their respective strategic or tactical profit plans. The strategic and tactical profit plans are usually developed concurrently. Certain format and procedural instructions should be provided by a centralized source, normally the financial functions, to establish the general format, amount of detail and other relevant procedural and format requirements essential for aggregation of the plans of the responsibility centres, into the overall profit plans. All of this activity must be coordinated among the centers in conformity with the organization structure. When the two profit plans for the overall enterprises are completed, executive management should subject the entire planning package to a careful analysis and evaluation to determine whether overall plans are the most realistic set that can be developed under the circumstances. When this point reaches the two profit plans should be formally approved by the top executive and distributed to the appropriate managers.

Implementation of Profits Plans

That profit plans strategies should be implemented by every level management is an accepted norm. Implementation of management plans that have been developed and approved in the planning process, involves the management functions of leading subordinates in attaining enterprises objectives and goals. Thus effective management at all levels requires that enterprises objectives, goals, strategies, and policy to be communicated and understood by subordinates. There are many facets involved in management leadership. However the comprehensive PPC program may aid substantially in performing this function, plans, strategies and policies foundation for effective communication. The plan should have been developed with the managerial conviction that they are going to be met or exceeded in all major respects. If these

principles are effective in the development process, the various effective and supervisor will have a clear understanding of their responsibilities and the expected level of performance.

Use of Periodic Performance Reports

Only implementing the strategy will be on no meaning when the implementation is not checked and trial whether used appropriately. So that the significance has been raised that monthly and three monthly performance reports are to be prepared.

Follow Up

It is an important part of control. Because of performance reports are based on assigned responsibilities, they are the basis for effective follow up actions. Finally, there should be a special follow up of the prior follow up actions. This step should be designed to:

-) Determine the effectiveness of prior corrective action and
-) Provide a basis for improving future planning and control procedures.

2.1.14 Basic Assumptions and Limitations of Profit Plan

Profit planning systems are more common in business organizations and non-business organization. But there are so many assumptions of using profit-planning program. Firstly, the basic plans of the business must be measured in items of money, if there is to be any assurance that many will be available for the needs of the business. Secondly, it is possible to plan for the future of a business in a comprehensive way, coordinating every aspect of the business, with every other aspect to establish optimum profits goals. Thirdly, profit planning is preplanning not merely what to do if things workout as forecasted, but also what to do if things work out differently from the forecast. In developing and using a profit planning and control (PPC) program, the following limitations should consider:

1. Profit plan is based on estimates.
2. A PPC program must be continually adapted to fit changing circumstances.

3. Execution of a profit plan will not occur automatically the profit plan is not a substitute for management.

The profit plan should be regarded not as a master but as a servant. It is not one of the best tools yet devised for advancing the affairs of a company and the individuals in their various spheres of managerial activity. It is not assumed that any profit plan is perfect. The most important consideration is to make sure, by intelligent use of profit plans that all possible attainable benefits are derived from the plans as rendered and to re-plan when there are compelling business reasons. (Welsch, et.al., 2001;265).

2.1.15 Development of Profit Plan

Development of profit plan in commercial Bank begins with the preparation of various functional budgets. Those functional budgets are in fact the picture of various activities of the Bank to be performed during a particular period of time. Therefore the functional budgets of a Bank are activity based such as budget for deposit collection, budget for lending and investments, budget for non-fund based business, budgets for expenditures and revenues. The development of profit plans process that involves managerial decisions and ideally a high level of management participation. The following are the budgets, which are developed in a bank while making a profit plan.

2.1.16 Resources Mobilization Plan or Budget

Planning for resources mobilization is the foundation for planning in a bank. The all other planning is based on it. The major and the sustainable resource of a bank are the customer deposits. Therefore, the plan for resources mobilization has a primary focus on the customer deposit mobilization. The lending and investment activities are depended on the deposit mobilized by the Bank. So the deposit mobilization or collection plan is the starting point in preparing the other different plan.

Deposit mobilization is the primary function of a bank, which has major contribution in the total resources of the bank. In terms of cost for the Bank, customer's deposits are of two kinds, viz. (i) interest free deposits i.e. current deposits, margin deposits etc. and (ii) interest bearing deposit i.e. saving deposits, fixed deposits of various tenure, call deposits etc. The interest free deposits are cost free but are generally volatile in nature.

Those can be withdrawn without restriction from the bank, thus cannot be invested into higher income yielding assets. Further, interest bearing deposits involve cost of deposit but their retention ratio with the bank are much better so they can be put to high income yielding assets having longer tenure. Therefore, a proper mix of cost free and costly deposits corresponding to short term and longer term deposits are to be maintained by the bank in its deposit mix in order to minimize its average cost of deposit at the same time having comfortable mix of income yielding assets. The cost of deposit of banks is also affected by the prevailing deposit interest rate of other banks in the market.

Budgeted targets for deposit mobilization during a particular year is set in advance with each view of optimizing the cost of deposit and the same are allocated to the different branches of the banks. Such allocations may be regarded as the tactical plan for deposit mobilization of the banks. Banks resources other than customer deposits are the borrowing from other banks and the capital fund. Generally banks borrows from other banks to meet temporary requirement of liquidity which may occur, sometimes, during the occurs of banking operation caused due to unexpected withdrawals of deposit or deferment in loan repayments by the borrower by some reason or other. Such activities are managed from the Head Office with the least possible cost.

Among the capital fund, the equity capital is formed generally one time during opening of the bank. The central bank (NRB) may from time to time instruct the bank to enhance the paid up capital to improve the capital adequacy of the bank.

Further, the bankers may choose by themselves whether or not to increase the owner's capital by raising the other item included in capital funds beside paid up capital and general reserves. It is always better to have a higher capital fund base of a bank because, creation of bank's assets, and the size of lending to any particular borrower are tried up with the capital adequacy requirement by the central Bank. As per NRB directives, banks shall have to build their capital base at least of 12 percent by the end of FY 2060/61. And a bank can take the size of exposure per borrower equivalent to maximum of 25 percent of its core capital in fund based, and 50 percent of than in no fund based exposure. (Welsch, et.al., 2001;126).

2.1.17 Resources Deployment Plan or Budget

Planning for development of resources starts from assessment of nature of resources to be mobilized. That is the assets are allocated on the basis of the nature of resources. This approach of deployment of resources is called asset allocation approach. The fundamental criterion which must be followed in allocating funds for acquiring different types of assets is that the velocity-turnover rate of different sources of supply of fund determines the appropriate maturity of the assets acquired through fund utilization, for instance while relatively stable fund, like saving deposits, fixed deposits and paid up capital could be used to buy long dated high yielding securities, demand deposit which are more volatile, could be used to acquire relatively liquid assets like cash or money at call and short notice on which little or no return is made by the bank (Vaish, 1996;365). Funds kept as cash in vault and as balance with NRB and other banks in current account are the most liquid assets of the bank. Normally banks have to maintain certain fixed percentage of their deposit liability in this form as directed by the Central Bank from time to time. There is no yield in the fund deployed as liquid assets.

Deployment for lower income yielding assets are generally placing the funds in short term securities, treasury bills etc. which provides reasonable liquidity to be bank as well as yield some return although they are at very low rate. Major portion the income of the Bank comes as interest income from the resources deployed to loans advances and Bill discounting (LDO). As the most part of the resources are for LDO. Banks make its lending budgets in advance as per their lending policies. Lending targets and fixed at various sector of economy for various kinds of trades and commercial activities and to various borrowers ensuring well diversification of the assets. The targets are allocated to the branches, which are generally operated as separated profit centres.

2.1.18 Planning for Non-Funded Business Activities

Other activities of commercial banks where it does not have to involve its fund yet it can generate other income are called non-funded business activities of the Bank. They are usually letter of credit and Bank guarantee issuance business of the bank where the bank undertakes payment liabilities, which are contingent in nature and the banks charges certain percentage of commission on such transaction to their client whoa re

availing these facilities from the bank. The bank fixes annual target for such business and those are allocated to the branches of the bank.

Expenditure Planning

Express planning and controlling are very necessary for supporting the objectives and planned programs of the firm. An expense is related with profit. It is real fact, that the minimization of cost is maximization profit. So the expenses must be planned carefully for developing a profit plan. In a Bank there are generally following types of expenses:

- a. Interest Expenses
- b. Personnel Expenses
- c. Office Operating Expenses
- d. Expenses meeting the loss in Exchange Fluctuation
- e. Non-operating expenses
- f. Expenses for provision for loan loss
- g. Expenses for provision for staff bonus
- h. Expenses for provision of income tax

The interest expenses are incurred while paying for the deposit mobilized by the bank and include the expenses incurred for interest payment in all kinds of interest bearing deposit as per the agreed rate between the bank and the borrower. In the total expenses of a bank, the portion of interest expenses is quite higher. Therefore, the expenses are categorized into interest expenses and other expenses while the later includes other expenses as mention above except the interest expense.

Interest expenses in a bank depend on the average cost of deposit (COD) mobilized by the bank. Lower the COD lower the interest expenses and thus higher the profitability. Therefore from profitability point of view banks plan their COD at lowest possible level. The nature of interest expense is that of a variable expense. The net earning from interest income of a bank deducting the interest expense for the deposit mobilized is called 'Spread' which is similar to the 'Contribution Margin' in sales of commodities by a manufacturing units.

Other expenses are the administrative expenses those are generally incurred by the bank during the course of its operation. Higher the volume of business transaction of a bank, higher will be the amount of its other expenses. Therefore, the expense should be related with the business activities, which ultimately should yield in income for the bank. Such other expenses from burden to the profitability as it consume the spread earned. Therefore budgets are prepared with an aim of reducing the burden as far as possible. The expenses budgets are formulated in co related with the activities of the bank and the targets are allocated to different branches.

Revenue Plan

Revenue of a bank is generated from the income yielding activities of the bank. Therefore while preparing the resources deployment plan and non-funded business activities plan, the banks make the estimation of the revenue in advance during the period for which the plan is developed. Revenues of a bank are generated in the following forms:

- a. Interest income
- b. Commission and discounts
- c. Dividend
- d. Other income
- e. Foreign exchange income
- f. Non-operating income

Generally the interest income of a commercial bank holds a major portion in total revenue of the bank and it provides the major source of earning of a bank. Therefore total income of a bank is categorized in two type viz. interest income and other income, while the later including other income items as listed above except the interest income. The interest income is earned by charging interest on the fund deployed in interest earning assets such as loan and advances, overdraft, investments in government securities, debentures etc. For this study, the income from Bills discounting has also been treated as interest income, as we consider loans overdraft and bills discounting together as a single asset portfolio as LDO.

As the average rate of interest on LDO are comparatively higher than any other kind of income yielding assets, from the profitability point of view, higher asset allocation into LDO, higher will be the income. The other income are generate from other activities of the bank such as issuance of L/C Bank Guarantees, from remittance charges, cheque collection fee, locker charges, service charges, commitment charges, trading gain on foreign exchange, revaluation gain on foreign exchange reserves etc. The amount of other income of a bank greatly contributes in lowering the burden on the profitability. Higher the other income earned by the bank, lower will be the net burden amount and thus better will be the profitability of the bank.

Income of a bank is essentially activity based i.e. the volume of business. Higher the income generating activities of a bank, higher will be the amount of its revenue. Therefore the bank develops its plans for various activities in such a way that it optimizes its revenue.

2.1.19 Implementation of the Profit Plan

Development of an annual profit plan ends with the planned income statement, the balance sheet and the planned statement of changes in financial position. These three statements summaries and integrate the details of plans developed by management for the period. They also report the primary impact of detailed plans on the financial characteristics of the firm. Before redistributing the completed profit plan it is general desirable to recast certain budget schedules so that technical accounting mechanics and jargon are avoided as much as possible. The redesigned budget schedules should be assembled in on logical order, reproduced and distributed before the first day of the upcoming budget period. The profit plan completion data is important. Issuance of a profit plan after the beginning of the budget period is one sure way of destroying much of the budget potential. Timely completion of the planning budget suggests the need for a budget calendar (Welsch, et.al., 2001;235).

The final test of whether the efforts and cost in developing a profit plan are worthwhile is its usefulness to management. The plan should be developed with the conviction that the enterprises are going to meet or exceed all major objectives. Participation enhances communication. If this principle is to be effective, the various executives and supervisors

should have a clear understanding of their responsibilities. The copies of the complete profit plan be prepared and distributed to the member of executive management. The guiding principle in establishing the distribution policy might be to provide one copy to each member of the management team according to his/her overall responsibilities, while taking in to account the problem of security. After distribution of the profit plan a series of profit plan conferences should be held. The top executives discuss comprehensively the plans expectations and steps in implementation. At this top level meeting the importance of action, flexibility and continuous control may well be emphasized. In essence, each manager has to realize that the budget is a tool for his or her use. Conferences should be a held so as to convey the profit plan to each level of management.

The manager of each responsibility centre obtains an approved profit plan for this centre and it becomes the basis for current operations and excerpts considerable coordinating and controlling effects. Performance must be measured and reported to management. Execution of the plan is assured through control procedure must be established so that accomplishment, or failure is immediately known. On this basis action can be taken to correct or minimize and undesirable effects. Short term performance reporting is essential.

A budget program viewed and administrated in a sophisticated way does not hamper or restrict management, instead, it provide definite goals around which day today and mouth to mouth decisions are made. Flexibility in the use and application of both the profit plan and variable budgets also should be considered in detail. Flexibility in budget application is essential and it increases the probabilities of achieving or bettering the objectives (Welsch, et.al., 2001;238).

2.1.20 Performance Reports

Performance reporting is an important part of a comprehensive PPC system. Its phase of a comprehensive PPC program significantly influences the extent to which the organization's planned goals and objectives are attained. Performance reports deal with control aspect of PPC. The control function of management defined as the action necessary to assure the objectives plans, policies and standards are being attended.

Performance reports are one of the vital tools of management to exercise its control function effectively.

Special external reports, reports to owner and internal reports are specially presented in the organization. Performance reports include in internal reports groups. It is usually prepared on a monthly basis and follows a standardized format. Such reports are designed to facilitate internal control by management. Fundamentally actual results of reports are compared with goals and budget plans. Frequently they identify problems that require special attention since these reports are prepared to pinpoint both efficient and inefficient performance.

Features of Performance Reports

In comprehensive PPC, performance report is very important. The main objective of performance reports is the communication of performance measurement, actual results and the related variances. Performance reports offer management essential insights in to all the facts of operational efficiencies. Performance reports should be:

1. Tailored to the organizational structure and focus of controllability (that is by responsibility centres).
2. Designed to implement the management by exception principle.
3. Repetitive and related to short term period.
4. Adapted to the requirements of the primary users.
5. Simple understandable and reports only essential information.
6. Accurate and designed to pinpoint significant distinctions.
7. Prepared and presently promptly.
8. Constructive in tone.

Aspects of Performance Reports

The various managers use their performance reports depends on many factors, some behavioural and some technical. One important factor is the extent to while the performance reports serves the management and decisions making needs of the users.

Top management needs reports that give a complete and readily comprehensive summary of the overall aspects of operations and identification of major events. Middle management needs summary data as well as detailed data on day-to-day operation. Similarly lower level management needs reports that must be detailed, simple understandable and limited to items having a direct bearing on the supervisor's operational responsibilities.

In the design and preparation of performance reports careful attention must be given that titles and headings should be descriptive; column heading and side caption should clearly identify the data, and the technical jargon should be avoided. Reports should not be too long and complex; tabulations should be avoided. Performance reports should be standardized to a reasonable degree and if should be relevant.

Performance reports should be available on a timely basis. To attain a realistic balance between immediate reporting and the costs of detailed reporting, monthly performance reports are widely used in the organization.

2.1.21 Concept of Commercial 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 in some cases, issuing notes and transiting other financial business (Stein & 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.
-) 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.

2.1.22 Evolution of Commercial Bank

The word '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 benches 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 form, 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 priests 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 14th 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 reign 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 in medieval Europe as the credit of planting 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 undertakings 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 concerns 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 Ramayan 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 dual 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 Baniya 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.

2.1.23 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 Review of Previous Studies

Commercial banks came into the existence mainly with the objectives of collecting the idle funds mobilizing them into productive sector and causing on overall economic development. Any institution accepting deposits subject to withdrawal on the demand and granting loans to the different sector, creation of credit is done by a bank. So far as the study concerned with the profit planning of commercial banks, there are various study have been available in the field of profit planning of commercial banks in Nepalese contest, some of them have been analyzed in this section:

Shrestha, (2004) on his thesis entitled “*Role of Rastriya Banijya Bank in priority sector credit & its recovery*” has tried to reveal the following objectives:

1. To identified the compliance of the target loan limit to be invested in priority sector credit (PSC) as prescribed by NRB.
2. To analyze the relationship of credit (loan & advances) with total deposit & also with PSC of RBB.
3. To examine the situation of deprived sector credit (DSC) of RBB.
4. To analyze the disbursement, recovery status & NPA position under Priority Sector Credit (PSC) of RBB.(Purpose wise)

The major findings made by the researcher are as follows:

-) Bank’s total no of borrowers in PSC about 76 % to 78 % of borrowers lie under DSC & out of the total loan outstanding of RBB invested on PSC about 28 % to 29 % has been invested under DSC.
-) RBB is very much success in complying the NRB policy.
-) Bank was not able to fully utilize the collected deposits in a proper way.
-) The study reveals that the disbursement & recovery under DSC is in decreasing trend; however the ratio of repayment to disbursement is in increasing trend.
-) Loan repayment under DSC was more satisfactory from industry sector that the agriculture sector & services sector.

) The trend values of recovery of RBB under PSC shows that the recovery position of the bank is in downward sloping whereas its overdue loan under PSC is in increasing trend which brings no return to the bank.

Manandhar, (2005) in his thesis "*Financial performance analysis of Nepal Bangladesh bank ltd*" In this study, various financial research and statistical tools have been used to achieve the objective of the study. The analysis of data will be done according to the pattern of data available. Likewise, some financial tools such as ratio analysis and trend analysis have also been used for financial analysis.

The specific objectives of his research are:

1. To analyze the functions, objectives procedure and activities of the NB bank
2. To analyze the lending practices and resources utilizations of NB bank.
3. To determine the impact of growth in deposit on liquidity and lending practices.
4. To examine the lending efficiency and its contribution to profit.
5. To make suitable suggestions based on the findings of this study. The financial and statistical tools are used.

The researcher found that NB bank has sufficient liquidity. It shows that bank has not got investment sectors to utilize their liquid money. Now, in Nepal many banks and other financial institution are functioning to collect deposits and invest money somewhere in the investable sectors. Therefore, miniaturization has been increased since liberalization policy taken by the government. Heavy remittance has also helps to increase the amount of deposits in bank. On the other hand, due to political crisis, economic sectors have been fully damaged.

The research findings of the study are summarized as:

-) NB bank has utilized most funds in the form of credit and advances. More than 75% of total deposits of the bank have been forwarded to customers as a credit and advances.
-) The major part of utilizing deposits and income generating sectors. If the bank has high deposits, bank can provide money to its customers as credit and advances. Therefore, there is highly positive correlation between total deposits and credit and advances of NB bank

) Bank is providing different schemes to attract good customers. After attracting deposits from the customers, bank has issued the deposits to the needy area to make profit for the bank.

Gautam, (2006) has conduct research on "*A Comparative study on financial performance of Standard Chartered Bank Limited and Nepal Bangladesh bank Limited*" Financial performance is analyzed with two important tools. The first most important tools are the financial tools, which includes ratio analysis and other is a statistical tools, which is bankruptcy score.

The objectives of his research are:

1. To study the existing capital structure of financial position of selected joint venture commercial banks and to analyze its impact on the profitability.
2. To access the debt servicing of the joint venture commercial bank.
3. To examine the correlation and the signification of their relationship between different ratios related to capital structure.
4. To provide suggestions and recommendations for the optimal capital structure of the joint venture commercial bank.
5. To obtained the objectives, some financial, statistical and accounting tools.

He has found his study were the joint venture banks are operating in Nepal as commercial merchant banks. The growth is still going on as so many new banks are coming into existence after this study. Therefore, JVB's are operating with higher technology and new efficient methods in banking sector. However, this study has been undertaking only three JVB's viz. SCBNL and NBBL to examine and evaluation the financial data.

The research findings of the study are as follows:

-) The research sample JVB's have used high percentage of total debt in raising the assets. The higher ratio constitutes that the outsider's claim in total assets of the bank is owner's claim.
-) The on an average, NBBL bank constitutes 16.27 times of P/E ratio, which should be reduce as quickly as possible.
-) The financial risk of the banks NBBL average degree of finance leverage constitutes 3.73 times which indicates the higher degree of financial risks 3.73 times which indicates the higher degree of financial risks.
-) The average ROE of JVB's i.e. SCBL and NBBL area 37.36% and 21.75% respectively.

Now, in Nepal many banks and other financial institution are functioning to collect deposits and invest money somewhere in the investable sectors. Therefore, efficiency has been increased since liberalization policy taken by the government. Heavy remittance has also helps to increase the amount of deposits in bank.

Regmi, (2008) in his dissertation “*Credit Management of NABIL Bank Limited*” highlighted that aggregate performance and condition of Nabil bank. In the aspect of liquidity position, cash and bank balance reserve ratio shows the more liquidity position. Cash and bank balance to total deposit has fluctuating trend in 5 years study period. Cash and bank balance to current deposit is also fluctuating. The average mean of Cash and bank balance to interest sensitive ratio is able to maintain good financial condition

The main objectives of the research study are as follow.

1. To evaluate various financial ration of the Nabil Bank.
2. To analyze the portfolio of lending of selected sector of banks
3. To determine the impact of deposit in liquidity and its effect on lending practices.
4. To offer suitable suggestions based on findings of this study.

In the statistical tools analysis, average mean, correlation analysis and trend analysis have been calculated. Correlation coefficient between total credit and total assets shows high degree of positive correlation. Correlation coefficient between total deposit and loan & advances has high degree of positive correlation it is concluded that increasing total deposit will have positive impact towards loan & advances.

The research findings of the study are as follows:

-) Assets management position of the bank shows better performance in the recent years. Non-performing assets to total assets ratio is decreasing trend. The bank is able to obtain higher lending opportunity during the study period. Therefore, credit management is in good position of the bank.
-) In leverage ratio, Debt to equity ratio is in an increasing trend. High total debt to total assets ratio posses' higher financial risk and vice-versa. It represents good condition of Total assets to net worth ratio.
-) In the aspect of profitability position, total net profit to gross income, the total interest income to total income ratio of bank is in increasing trend. The study shows the little high earning capacity of NABIL through loan and advances.

-) Earning per share and The Price earning ratio of NABIL is in increasing trend. These mean that the better profitability in the coming last years. It represents high expectation of company in market and high demand of share.
-) Loan loss provision to total loan and advances ratio and None-performing loan to total loan and advance ratio of NABIL is in decreasing trend. The ratio is continuously decreasing this indicates that bank increasing performance. Thus, credit management is in a good position.

The study is conducted on credit management of Nabil Bank, which is one of the leading banks in Nepal. NABIL has been maintaining a steady growth rate over this period. In the study every aspect of banks seems to be better and steady in every year. Its all analysis indicates better future of concern bank.

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

The objectives of this study are as follows:

1. To find out the relationships between total investment loan and advances, 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

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 2006/07 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.

2.3 Research Gap

Most of the past research studies about profit planning system are basically related to profit planning system of manufacturing sectors or production oriented activities. The researcher could find only one study so far that has been related to profit planning system of a commercial bank i.e. in NB Bank. All the research have pointed out that there is no proper profit planning system and recommend for the effective implementation of profit planning system in the concerned institutions. This study shall be a new study in this field as no study has been made so far in the profit planning of commercial banks i.e. comparative study on profit planning in Everest Bank and Himalayan Bank limited. This study has tried to indicate the implementation of profit planning system as well as to see how far the banks are practicing. This study has analyzed the financial position of EBL, NABIL and HBL by applying the tools of ratio analysis and other mathematical and statistical tools. Finally it concludes the various findings of research and recommendations to the EBL, NABIL and HBL. So this study will be fruitful to those interested persons, scholars, teachers, students, civil society, stakeholders, businessmen and Government for academically as well as policy perspectives.

CHAPTER - III

RESEARCH METHODOLOGY

This chapter describes the methodology employed in this study. Research methodology is the systematic method of finding solution to a problem i.e. systematic collection, recording, analysis, interpretation and reporting of information about various facts of a phenomenon under study. In this study research methodology describe the methods and processes applied in the entire aspect of the study. This chapter describes research design, population, sampling procedure, sources of data and analysis of data.

3.1 Research Design

The research design is the conceptual structure within which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data. This study is an examination and evaluation of budget process in profit planning program of EBL, NABIL and HBL. Various functional budgets and other related accounting information and statement of the banks are materials to analyze and evaluate the profit planning system of banks. Descriptive as well as analytical approaches have been adopted in this research. This is a comparative study research of commercial banks.

3.2 Population and Sample

As this research aims to study the profit planning aspect of the commercial bank taking the reference of EBL, NABIL and HBL and data have been analyze for several years of their operation. Here, all the thirty two commercial banks are population of the study and EBL, NABIL and HBL have been selected as sample using judgemental sampling for the present study.

3.3 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.

3.4 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.

3.5 Analysis of data

Analysis is the careful study of available facts so that one can understand and draw 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.

3.6 Financial Tools

To Analysis & identifying the financial strength & weakness of the concern banks. This study mostly focus the following ratios like, Profitability Ratio, Growth ratio.

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. Liquidity Ratio, Assets management ratio,

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)

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

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 ()

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.

$$\text{S.D.}(\exists) = \sqrt{\frac{\sum x^2}{N} - \left(\frac{\sum x}{N}\right)^2}$$

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 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.

$$\text{C.V.} = \frac{\exists}{x} \times 100\%$$

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 Commercial 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 concern banks.

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 fulfil 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 within 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 bills payable, Tax provision, staff bonus, dividend payable and miscellaneous current liabilities.

Table 4.1
Current Ratio (Times)

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	2.3827	1.9318	2.1969	1.8758	1.5762	1.993	0.31	15.56%
NABIL	1.2192	1.8312	1.3483	1.1982	1.586	1.436	0.27	18.75%
HBL	2.0708	2.1558	1.1653	1.5048	1.0661	1.593	0.03	1.81%

In the table 4.1, current ratio of commercial banks has been analyzed. The table reflects that the current assets of all commercial banks have exceeded the current liabilities during the five years period. In general it can be said that all the banks have sound ability to meet their short term obligations. In other words bank is capable of discharging the current obligations. The reference current ratio for better liquidity position of the company is 2:1. The current ratio of all the sample companies in years 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 are below than reference ratio but in year 2005/06,2007/08 the current ratio of EBL and year 2005/06,2006/07 Nabil are above than reference ratio but the current ratio of HBL is less than reference ratio of 2:1 and average current ratio of all sample banks during the study period is below than reference ratio.

1. In case of EBL, the current ratios are in fluctuating trend from fiscal year 2005/06 to 2009/10. NABIL has also fluctuating trend from fiscal year 2005/06 to 2009/10. Similarly HBL has a fluctuating trend ratio. In an average, NABIL has maintained lower current ratio, which states that liquidity position of NABIL is fair. The value of coefficient of variation of NABIL is 18.75% which is comparatively higher than EBL and greater than HBL i.e. $18.75\% > 15.56\%$ and 1.81% . Thus it can be said that current ratio of NABIL is less consistence than HBL and is slightly consistence than EBL. . In general, the current ratio analysis of banks over the five years period indicates that it has been able to meet its short-term obligations and has satisfactory liquidity position.

b. Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are assets that constitute the banks first line of defence 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 demand for cash.

The table below shows cash and bank balance to total deposit ratio of EBL, NABIL and HBL from the FY 2005/06 to 2009/10.

Table 4.2

Cash and Bank Balance to Total Deposit Ratio

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	10.39	11.25	13.15	11.23	18.49	12.90	2.9341	22.74
NABIL	3.83	3.26	5.99	8.37	9.03	6.96	1.8422	26.47
HBL	8.12	6.48	5.85	4.55	8.79	6.76	1.5338	22.68

The table 4.2 shows the percentage of cash and bank balance to total deposit ratio position of EBL, NABIL and HBL. The mean standard deviation and coefficient of variation of cash and bank balance to total deposit ratios of all banks are better because the average mean ratio of all sample banks are higher than the reference cash reserve ratio determined by Nepal Rastra Bank. The above table reflects EBL has fluctuating trend like wise 10.39%, 11.25, 13.15%, 11.23% and 18.49 from the FY 2005/06 to 2009/10 respectively. It has maintained highest ratio in the FY 2009/09 i.e. 18.49% and lowest ratio in the FY 2005/06 i.e. 10.39%. Similarly NABIL and HBL have maintained fluctuating trend from the FY 2005/06 to 2009/10. In average EBL has higher cash and bank balance to total deposits ratio than HBL and NABIL. It states that the liquidity position of EBL is better in this regard.

The above analysis helps to conclude that, the cash and bank balance position of NABIL with respect to deposits is not better against the readiness to serve its customers deposits than that of the EBL. So NABIL may invest in more productive sectors like short-term marketable securities, treasury bills etc ensuring enough liquidity which will helps the bank to improve its profitability.

c. 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 banks 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 EBL, NABIL and HBL from the FY 2005/06 to 2009/10.

Table 4.3
Cash and Bank Balance to Current Assets Ratio

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	10.13	13.62	14.69	12.49	20.18	14.22	3.3499	23.56
NABIL	3.74	4.55	7.77	12.51	10.41	7.80	3.3384	42.80
HBL	13.08	9.54	8.33	6.57	10.29	9.55	2.1579	22.59

(Source: Appendix No. 3)

This table 4.3 shows the mean standard deviation and coefficient of variance of cash and bank balance to current asset ratio of all three banks are in fluctuating trend during the study period. They show the ability to manage the deposit withdraws from the customers. EBL has maintained a highest ratio of 20.18% in the year 2009/10. Similarly NABIL and HBL have a highest ratio of 12.51% and 13.08% in the year 2008/09 and 2005/06 respectively. The mean value of EBL is highest in comparisons to other banks.

Similarly the coefficient of variation of EBL is 23.56%, which is lower than NABIL and higher than HBL, it reflects that the current ratio is less heterogeneous than NABIL bank.

Lastly, the analysis reveals that EBL is better position during the study period as the bank shows the ability to manage the deposit with drawl from the customers although it has the fluctuating trend.

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
Loan and Advances to Current Assets Ratio

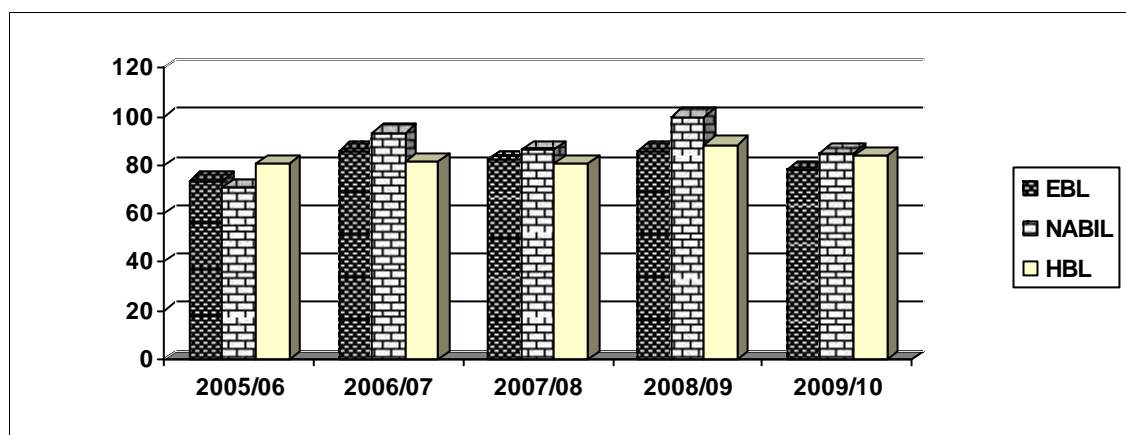
Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	73.60	85.99	82.09	85.89	78.21	81.17	4.4958	5.53
NABIL	70.71	93.25	86.26	100.05	85.20	87.10	9.7287	11.16
HBL	80.69	81.31	80.52	88.51	83.66	82.94	2.9481	3.55

(Source: Appendix No. 5)

The table shows the percentage of loan and advances to current assets ratio position of EBL, HBL and NABIL. The loan and advances to current assets ratio of all banks are in increasing trend. The mean ratio of HBL is highest than EBL and lowest than Nabil.

It reflects that loan and advances to current asset ratios of the EBL has maintained a highest ratio of 85.89% in the FY 2008/09. Similarly NABIL and HBL have in 100.05% and 88.51% in the FY 2008/09. The coefficient of variation among ratio is lower in case of HBL, which indicates uniformity of HBL in comparison to other banks. So it can conclude that it is better to mobilize its funds as loan and advances. On the other hand satisfactory than that of other banks from the view point of mean ratios.

Figure 4.1
Loan and Advances to Current Assets Ratio



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 4.6 reflects the percentage of loan and advances to total deposit ratios position of EBL, NABIL and HBL.

Table 4.5
Loan and Advances to Total Deposit Ratio

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	75.45	71.01	73.48	76.49	71.67	73.62	7.5708	10.28
NABIL	72.57	66.79	66.60	66.94	73.87	69.35	3.27064	4.7161
HBL	51.37	55.27	56.57	61.23	71.49	59.19	6.8758	11.6164

(Source: Appendix No.5)

The ratio of HBL and NABIL have in increasing trend where as EBL ratio is in fluctuating trend for study period. In the case of EBL has maintained higher loan and advances to total deposit i.e. 76.49% in a year 2008/09, likewise NABIL has maintained higher ratio in a year 2009/10 and HBL is in 71.49% in a year 2009/10 respectively. The mean value of EBL i.e. 73.62% is higher than HBL and higher than NABIL i.e. 66.18%. The CV of Nabil is lower than that of the other banks which indicate that loan and advances of it is stable and consistent.

Lastly it can be concluded that EBL is in strong position or in better position regarding the mobilization of total deposits on loan and advances and acquiring higher profit in comparison with HBL and lower than NABIL. Higher ratio is not good from the view point of liquidity as the loan and advances are not a liquid as cash and bank balance.

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. E. and 6 P. E between deposit and loan and advance of EBL in comparison with NABIL .

Table 4.6
Correlation between Deposit and Loan and Advances

Banks	Evaluation Criteria			
	r	r ²	P.E.	6 P. E.
EBL	0.997042	0.9940	0.00181	0.01084
NABIL	0.990175	0.98044	0.005989	0.035389
HBL	0.978210	0.965110	0.010310	0.061920

(Source: Appendix No. 6,7,8)

The table 4.6 shows the value of 'r', r², P. E., 6P. E. between deposit and loan and advances of EBL with comparison to HBL and NABIL from the 2005/06 to 2009/10. In case of EBL, it is found that coefficient of correlation between deposit and loan and advances is 0.997042. It shows the positive relationship between two variables. The value of coefficient of determination (r²) is 0.9940, which means 99.40% of the variation in the dependent variable (loans and advances), has been explained by the independent variable (deposit). Similarly, considering the value of 'r' i.e. 0.997042 and comparing it with 6 P.E.i.e. 0.01084, we can find, it is greater than the value of 6P.E. which reveals the value of 'r' is significant or there is significant relationship between deposit and loan and advances.

In the case of NABIL and HBL, have positive correlation between deposit and loan and advances when we consider the value of coefficient of determination (r²) it indicated than NABIL and HBL are 98.04% and 96.51% respectively of the variation in the dependent variable has been explained by the independent variable. Since the value r²

of NABIL is less than 6P.E, so its value of 'r' is significant i.e. there is no significant relationship between deposit and loan and advances.

After analyzing, the conclusion it can be drawn that in EBL and HBL there is significant relationship between deposit and loan and advances because 'r' is greater than 6 P.E. whereas, in case of NABIL 'r' is less than 6P.E. So there is no significant relationship between deposit and loan and advances. This indicates that EBL has higher correlation between deposit and loan and advances as well as higher value of (r^2) than NABIL and HBL.

It can conclude that it is successful to grant loan and advances to mobilize the collected deposits in a proper way.

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 banks EBL, NABIL & HBL.

Table 4.7
Total Investment and Total Deposit Ratio

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	21.08	30.43	27.41	21.10	17.85	23.57	4.6424	19.69
NABIL	29.25	31.93	38.32	31.14	28.98	31.92	3.4236	10.72
HBL	48.35	41.11	39.34	41.89	25.12	39.16	7.6634	19.49

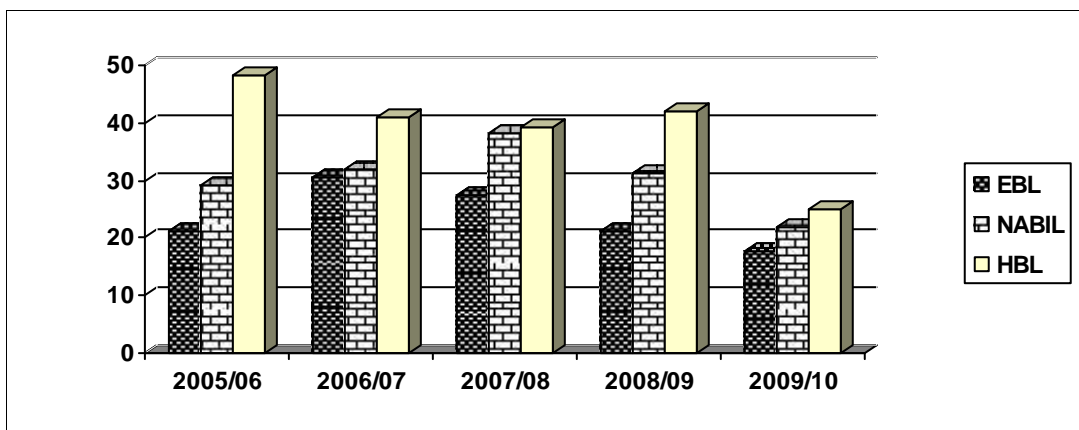
(Source: Appendix No. 9)

From the table 4.7, it is found that, total investment to total deposit ratio all three banks are in either increasing or decreasing trend or in fluctuating trend during study period 2005/06 to 2009/10. The total investment to total deposit ratio of EBL has highest ratio of 30.43% in FY 2006/07 and lowest ratio 17.85% in FY 2009/10. Similarly NABIL has highest and lowest ratio of 38.32% and 28.98% in FY 2007/08 and 2009/10. HBL has

highest and lowest ratio of 48.35% and 25.12% in FY 2005/06 and 2009/10 respectively.

In comparison with mean value, EBL has lesser than HBL mean value and higher than that a Nabil i.e. $23.57 < 39.16 > 31.92$. Likewise the value of coefficient of variation on EBL is lower than that of both banks. After analysis it is clear that the investment policy of EBL is in better position in comparisons to both banks. The total investment to total deposits ratio of EBL is more homogeneous because it has low coefficient of variation.

Figure 4.2
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', r^2 , P.E, 6 P.E. between out side asset and net profit of EBL, NABIL and HBL for the study period 2005/06 to 2009/10.

Table 4.8
Coefficient of Correlation Between Deposit and Total Investment

Banks	Evaluation Criteria			
	r	r ²	P.E.	6 P. E.
EBL	0.87151	0.75953	0.07251	0.4351
NABIL	0.94682	0.89647	0.03120	0.1873
HBL	0.97542	0.9514	0.01464	0.0878

(Source: Appendix No. 10, 11, 12)

The table 4.8 shows the value of 'r', r², P.E., 6 P.E. between deposit and total investment of EBL with comparison of HBL and NABIL. From table, it is found that coefficient of correlation between deposit and total investment of EBL is 0.87151. It shows the positive relationship between two variables i.e. deposit, independent (X) and total investment, dependent (Y). Moreover, when we consider the value of coefficient of determination (r²) it is 0.75953 and it means 75.95% of the variation in the dependent variable is explained by the independent variable. Similarly considering the value of 'r' and comparing with 6 P.E. it is lesser than 6P.E. which reveals that the value is significant. Likewise in the case of NABIL value of 'r' is less than 6 P.E. so we can say that there is also not significant relationship between total deposit and total investment.

On the other hand, in case of HBL has positive correlation between deposit and total investment. By considering the probable error since the value of 'r' i.e. 0.97542 is more than 6 P.E. i.e. 0.0878, so it indicates that there is significant relationship between total deposits and total investment. Likewise by the application of coefficient determination i.e. r² which indicates HBL to be 95.14% of the variation in the dependent variable has been explained by the independent variables.

The above analysis clears that in case of HBL there is significant relation between total deposit and total investment because 'r' is less than 6P.E. That means HBL has not able to follow the policy of maximizing the investment of their deposits. It has not certain investment policy to invest their deposit where there as EBL there is significant relationship between deposit and total investment. Lastly we can say that EBL has

followed the policy of maximizing the investment of their deposits or EBL is successful in maximizing the investment of their deposit.

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.

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

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	2.24	2.42	2.18	2.46	2.67	2.394	0.1736	7.25
NABIL	4.90	4.92	4.34	3.49	7.73	4.276	0.5872	13.72
HBL	2.48	3.12	2.89	3.18	3.035	2.941	0.2502	8.51

(Source: Appendix No. 13)

The table 4.9 reveals that EBL return on loan and advances ratio has decreasing trend in the beginning years and after 2007/08 it is slightly increase in 2009/10. NABIL has also fluctuating trend where HBL has also same the NABIL data.

The mean of EBL is lesser than NABIL and higher than that of HBL i.e. $2.394 < 4.276 > 2.941$ respectively. The standard deviation of EBL is lesser than both banks. Similarly the coefficient of variation of EBL is less than other two banks i.e. $7.25 < 13.72\% < 8.51\%$. NABIL has maintained average C.V. and HBL are in highest C.V value. Thus it can be concluded that EBL is in average position in earning loan and advances in comparison to NABIL and HBL.

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 EBL, NABIL and HBL.

Table 4.10
Return on Total Working Fund Ratio

Bank	Fiscal Year					Mean	SD	CV%
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	1.45	1.49	1.39	1.66	1.73	1.544	0.1292	8.37
NABIL	3.02	2.85	2.47	2.01	2.35	2.540	0.3604	14.19
HBL	1.12	1.55	1.47	1.76	1.91	1.562	0.2699	17.28

(Source: Appendix No. 14)

The table 4.10 reflects the mean, S.D and C.V of EBL, NABIL, HBL banks from FY 2005/06 to 2009/10. EBL has the fluctuating trend which indicates that its profitability ratio is not consistent. It has highest profit ratio is 1.73% in the FY 2009/10 and minimum profit ratio is 1.39% in the FY 2007/08. Similarly NABIL have highest ratio on in F/Y 2005/06it has 3.02. There after it has slightly decrease position. Likely HBL has maintained increasing trend of profit ratio. In average, EBL, NABIL, HBL banks have able to maintain a net profit during the stuffy period.

If the mean values are observed EBL is lowest than HBL and lower than NABIL i.e. $1.544 < 2.540 > 1.562$ respectively. The coefficient of variation of EBL is lesser than that of NABIL and HBL i.e. $8.37\% < 14.19\% < 17.28\%$ it indicate, the return on total working fund ratio of EBL is stable and consistent in comparison to NABIL and HBL. The analysis clear the profitability ratio with respect to financial resources investment of EBL is better as well as stable.

4.1.4 Growth Ratio

It represents how well the commercial banks those growth ratios are maintaining their economic and financial position. Here those growth ratios are analyzed and interpreted, which are related to the fund mobilization and investment management of a bank. In this topic, there are four types of growth ratio and under this section growth ratio of total deposit, total investment, loan and advances and net profit are calculated.

a) Growth ratio of total deposit

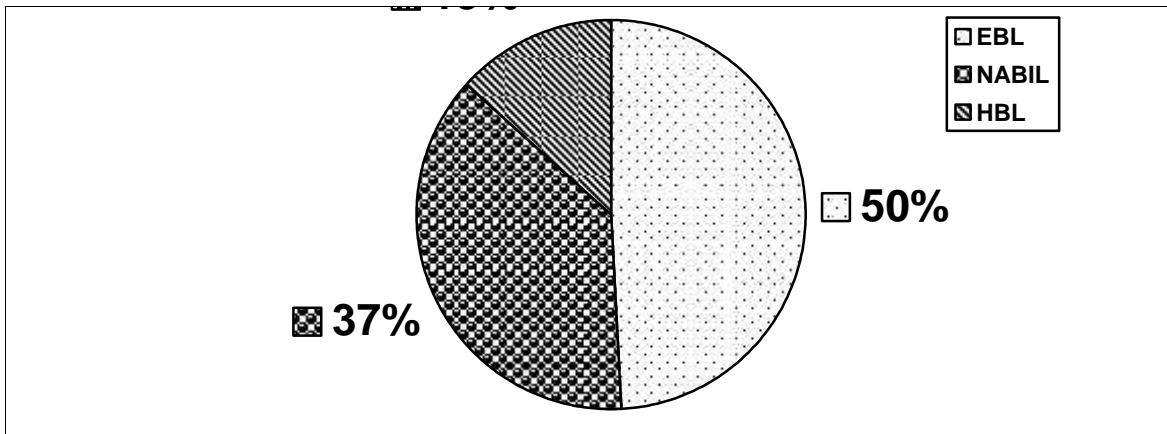
Growth ratios of total deposit of sample banks are calculated to find out the trend of growth of total deposit and to detect better position of banks. The growth ratios are derived from the interpolation of the factor, which is calculated by dividing final deposit with initial deposit.

Table 4.11
Growth Ratio of Total Deposit

Bank	Fiscal Year					Growth Rate (%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	10097.69	13802.44	18186.25	23976.30	33322.37	34.79
NABIL	14586.60	19347.40	23342.29	21915.05	37348.25	26.49
HBL	2418.01	26490.85	30048.41	31842.79	34681.35	9.43

(Source: Appendix No. 15)

Figure 4.3
Growth Ratio of Total Deposit



The comparative table 4.11 shows that the growth ratio of EBL deposit is higher than that of NABIL & HBL. EBL has maintained ratio of 34.79% where as NABIL and HBL 26.49% and 9.43% respectively. This means the performance of Everest Bank Limited to collect greater deposit compared to other banks. NABIL and HBL are improving year by year. Among three banks HBL has lowest growth ratio i.e.9.43%.

b) Growth ratio of loan and advances

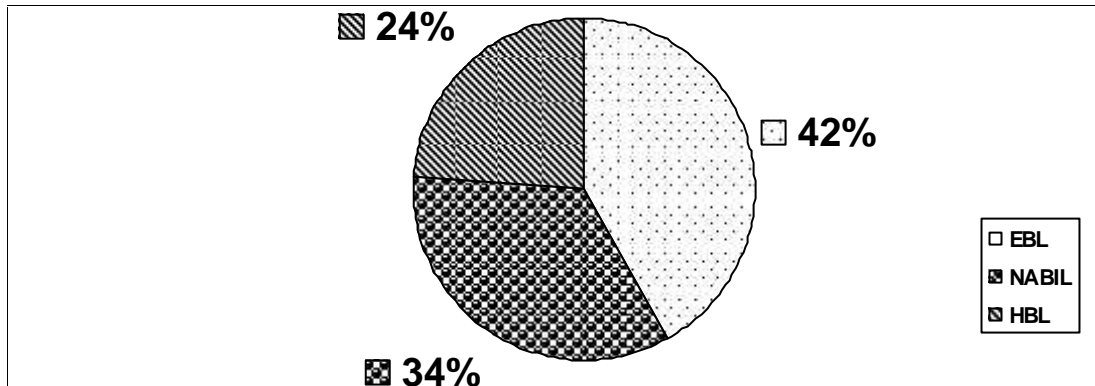
Growth ratios of total loan and advances of sample banks are calculated to find out the trend of growth of total loan advances and to detect better position of banks. The growth ratios are derived from the interpolation of the factor, which is calculated by dividing final loan and advances with initial loan and advances.

Table 4.12
Growth Ratio of Loan and Advances

Bank	Fiscal Year					Growth Rate (%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	7900.00	9801.31	13664.08	18339.09	23884.67	33.06
NABIL	10586.17	12922.50	15545.78	21365.05	27589.93	27.05
HBL	12424.52	14642.56	16997.99	19947.52	24793	18.85

(Source: Appendix No. 15)

Figure 4.4
Growth Ratio of Loan and Advances



The comparative table 4.12 shows that the growth ratio of EBL loan and advances is higher than that of other banks. EBL has able to maintain of 33.06%, whereas NABIL and HBL able to have maintained 27.05% and 18.58% respectively. The performance of EBL to grant loan and advances is better in comparison to other banks i.e. NABIL and HBL . The highest growth ratio is 33.06% and lowest growth ratio is 18.85%. The above table clearly has shown that EBL in comparison to other banks is better year by year and Nabil also maintained the average performance to grant loan and advance in the study period.

c) Growth ratio of total Investment

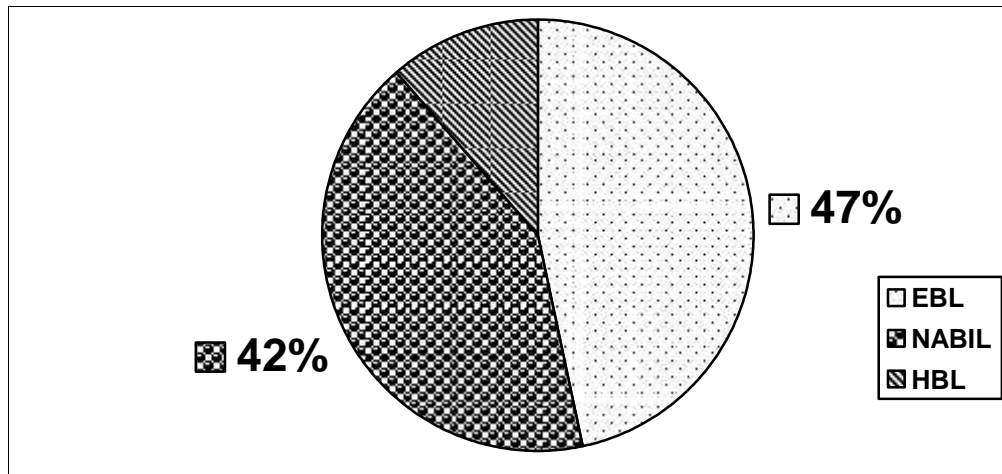
Growth ratios of total investment of sample banks are calculated to find out the trend of growth of total investment and to detect better position of banks. The growth ratios are derived from the interpolation of the factor, which is calculated by dividing final investment with initial investment.

Table 4.13
Growth Ratio of Total Investment

Bank	Fiscal Year					Growth Rate (%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	2128.90	4200.52	4984.31	5059.56	5948.48	29.29
NABIL	4267.23	6178.53	8945.31	9939.77	10826.4	26.21
HBL	11692.34	10889.03	11822.98	13340.18	8710.69	7.09

(Source: Appendix No. 15)

Figure 4.5
Growth Ratio of Total Investment



The comparative table 4.13 show that the growth ratio of EBL total investment is lower than HBL and higher than NABIL i.e. $29.29 > 26.21 > 7.09$. The total investment of EBL has average position in comparison to the NABIL and HBL.

d) Growth ratio of total net profit

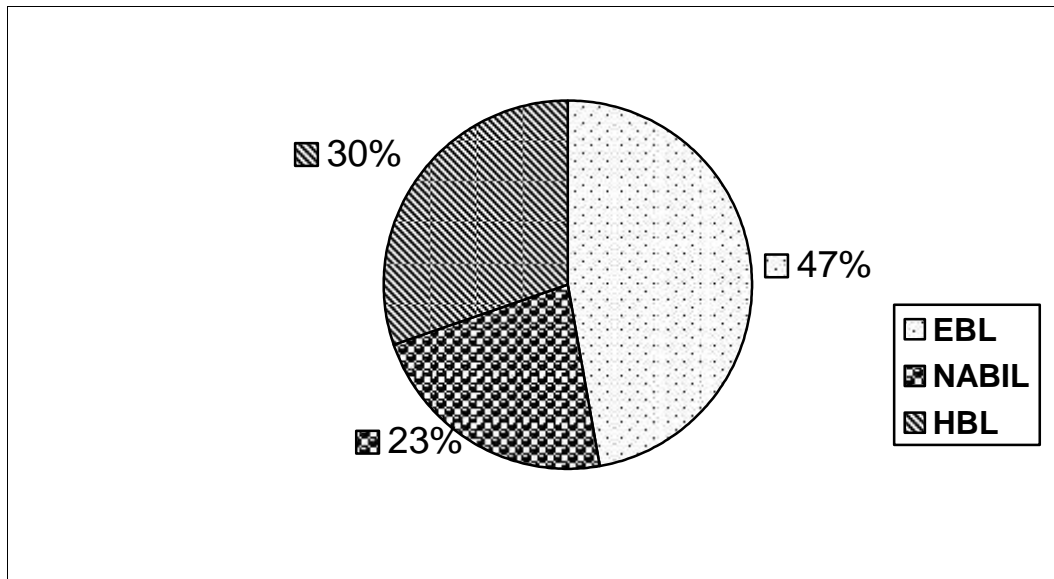
Growth ratios of total net profit of sample banks are calculated to find out the trend of Growth of total net profit and to detect better position of banks. The growth ratios are Derived from the interpolation of the factor, which is calculated by dividing final net profit with initial net profit.

Table 4.14
Growth Ratio of Total Net Profit

Bank	Fiscal Year					Growth Rate (%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	170.80	237.38	297.99	451.22	638.73	39.06
NABIL	518.64	635.30	673.96	746.47	1031.05	18.74
HBL	308.27	457.45	491.82	635.86	752.63	25

(Source: Appendix No. 15)

Figure 4.6
Growth Ratio of Total Net Profit



The comparative table 4.14 shows that the growth ratio of EBL total net profit is higher. Than two banks (NABIL and HBL) Net profit of NABIL is poor in comparison with EBL and HBL, EBL has able to maintain the growth ratio in better position. So it clear that EBL has high growth rate in comparison to other bank.

From the above analysis of all tables, it can be concluded that EBL performance regarding the collection of deposit, granting loan and advances on total investment and net profit is comparatively better.

4.2 Statistical Tools

4.2.1 Trend Analysis

i) Trend Analysis of Total Deposit

Under this topic an efforts has been made to calculate the trend values of deposits of EBL, NABIL and HBL for five years from mid July 2005/06 to 2009/10 and forecast for next five years from the mid July 2009/10 to 2014/15.

Table 4.15
Trend Value of Total Deposit of EBL, NABIL and HBL

Fiscal Year	Trend Value of EBL	Trend Value of NABIL	Trend Value of HBL
2006	8552.26	13689.32	24588.10
2007	14214.69	19498.18	27066.82
2008	19877.12	25307.92	29575.48
2009	25539.55	31116.93	32084.14
2010	31201.98	36925.93	34592.8
2011	36864.41	42734.93	37101.46
2012	42526.84	48543.93	39610.12
2013	48189.27	54352.92	42118.78
2014	53851.7	60161.93	44627.44
2015	59514.13	65970.93	47136.1

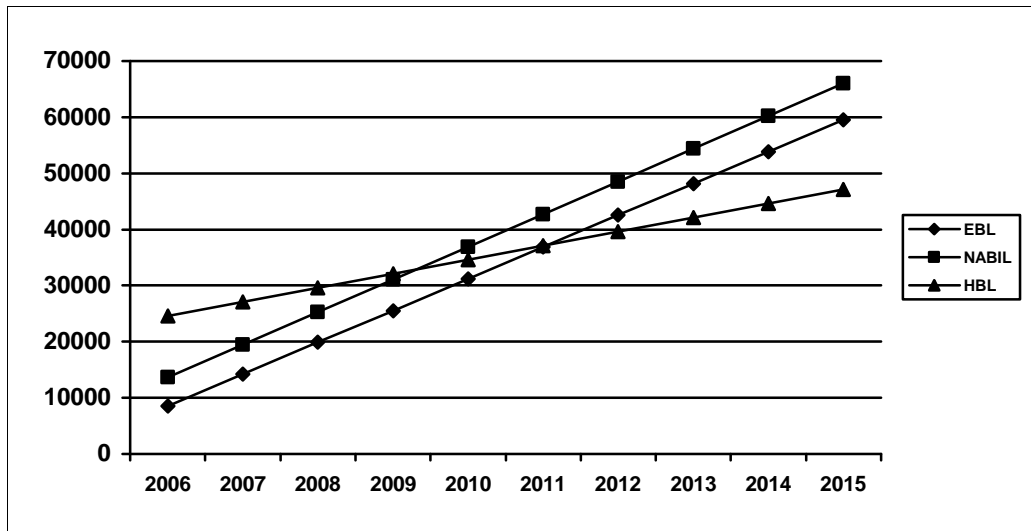
(Source: Appendix No. 16,17,18)

The table 4.15 shows the trend value of total deposit from 2009/10 to 2014/15 of three banks.

The total deposits of EBL, NABIL and HBL have in the increasing trend. If all other things remain the same the total deposits of the NABIL will be highest deposit among the three banks, under the study period. Same as the total deposit of the HBL will be 47136.1 million in the mid July 2015. The total deposit of NABIL will be 65970.93 million in the mid July 2015. The total deposit of EBL will be 59514.13

By analyzing the above trend value, it is found that the total deposit position collection of NABIL is better in comparison to HBL. The deposit position NABIL, EBL and HBL are increasing in the same proportion.

Figure 4.7
Trend Value of Total Deposit of EBL, NABIL and HBL



ii) Trend Analysis of Loan and Advances

Here the trend values of loan and advances of EBL, NABIL and HBL have been calculated for five years from mid July 2005/06 to 2009/10. The forecast for next five years up to 2015 have been done.

The table reveals that the trend value of loan and advances of the three banks have been in increasing trend. If other things remain same, total loan and advances of EBL will be 43350.42 million by 2015. Similarly the total loan and advances of HBL will be 38790.63 million. Total loan and advances of NABIL will be 47316.94, which is the highest among the study period.

Table 4.16

Trend Values of Loan and Advances of EBL, NABIL and HBL

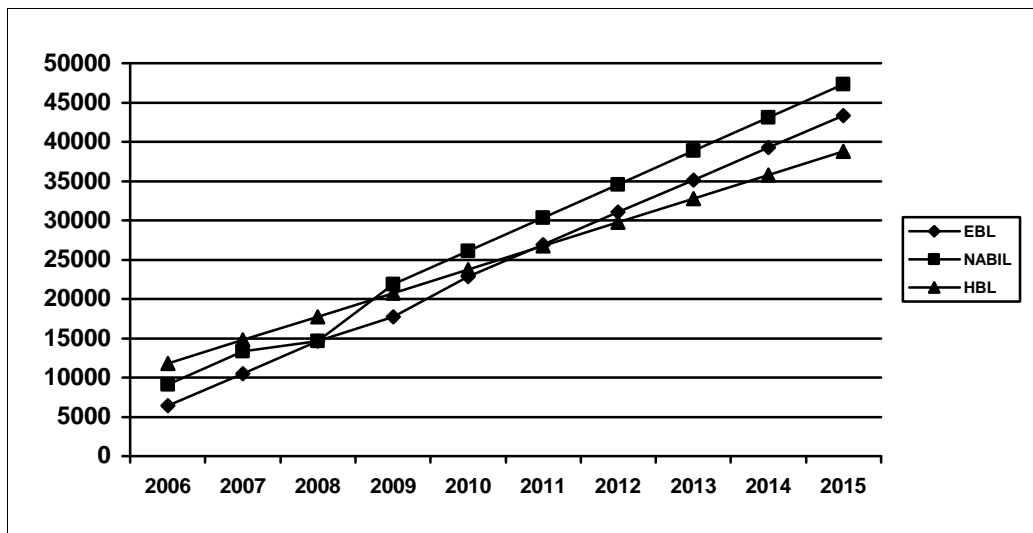
Fiscal year	Trend Value of EBL	Trend Value of NABIL	Trend Value of HBL
2006	6387.6	9111.88	11752.71
2007	10494.58	13356.82	14756.93
2008	14601.56	14601.89	17761.93
2009	17708.54	21846.89	20765.35
2010	22814.68	26091.90	23769
2011	26922.5	30336.91	26773.56
2012	31029.48	34581.92	29777.99
2013	35136.46	38826.92	32782.21
2014	39243.44	43077.41	35786.42
2015	43350.4	47316.94	38790.63

(Source: Appendix No. 19,20,21)

From the above analysis it is found the loan and advances position of EBL is comparatively lower than NABIL and is better in comparison to HBL i.e. $43350.4 > 38790.63 < 47316.94$ million respectively. EBL and HBL may use the skill for the other option of secured loans that is quite appreciable. NABIL is tilted towards the secured loan because of less risk due to the sufficient collateral of its clients.

Figure 4.8

Trend Values of Loan and Advances of EBL, NABIL and HBL



iii) 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 2005/06 to 2009/10 have been calculated and forecasted from July 2010 to 2015. The table 4.27 shows the trend values of total investment from mid July 2005/06 to 2014/15 of the EBL, NABIL.

Total investments of EBL, NABIL and HBL have the increasing trend value. The total investment of HBL will be 8832.64 million in the mid July 2015, which lowest in comparison with EBL and NABIL i.e. 8832.64 million < 10413.09 million < 19847.09 million.. The total investment trend of NABIL is satisfactory among the two banks. From the above analysis it can be concluded that HBL has not maintained well investment but in case of EBL and NABIL it is predicted to be good total investment trend up to the 2014/15 years.

Table 4.17

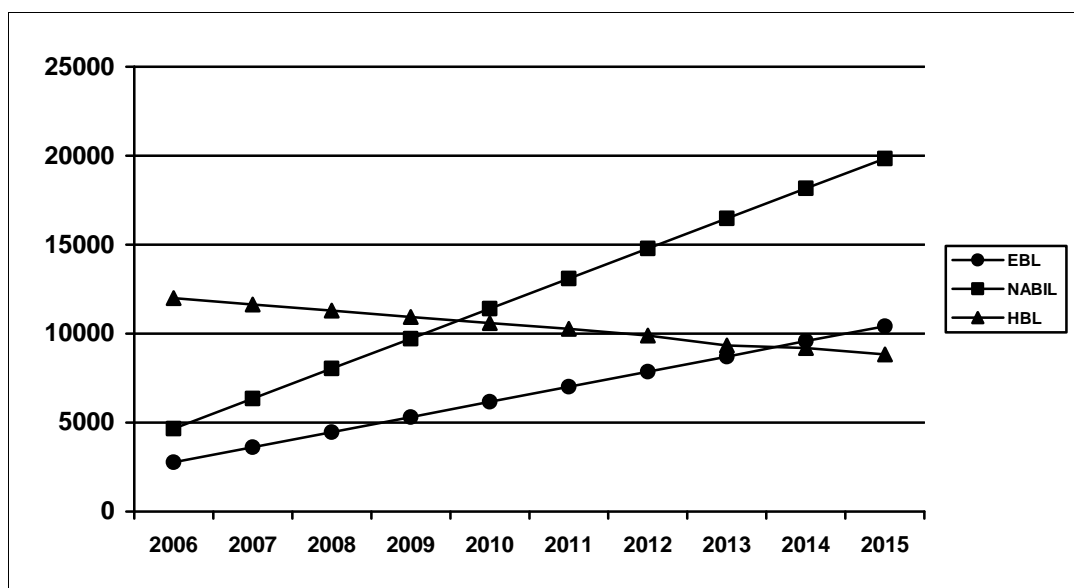
Trend Values of Total Investment of EBL, NABIL and HBL

Fiscal Year	Trend Value of EBL	Trend Value of NABIL	Trend Value of HBL
2006	2764.71	4655.54	11993.44
2007	3614.53	6343.49	11642.20
2008	4464.35	8031.44	11291.04
2009	5314.17	9719.39	10939.84
2010	6163.99	11407.34	10588.04
2011	7013.81	13095.29	10273.44
2012	7863.63	14783.24	9886.24
2013	8711.95	16471.19	9335.20
2014	9593.27	18159.14	9183.84
2015	10413.09	19847.09	8832.64

(Source: Appendix No. 22,23,24)

Figure 4.9

Trend Value of Investment of EBL, NABIL and HBL



iv) Trend Analysis of Net Profit

Under this topic, an effort had been made to analyze net profit of EBL, NABIL and HBL from the mid July 2005/06 to 2009/10 and forecast from the mid July 2009/10 to 2014/15. The table 4.18 shows the trend values of net profit for ten years from mid July 2004/05 to 2013/14 of EBL, NABIL.

Table 4.18

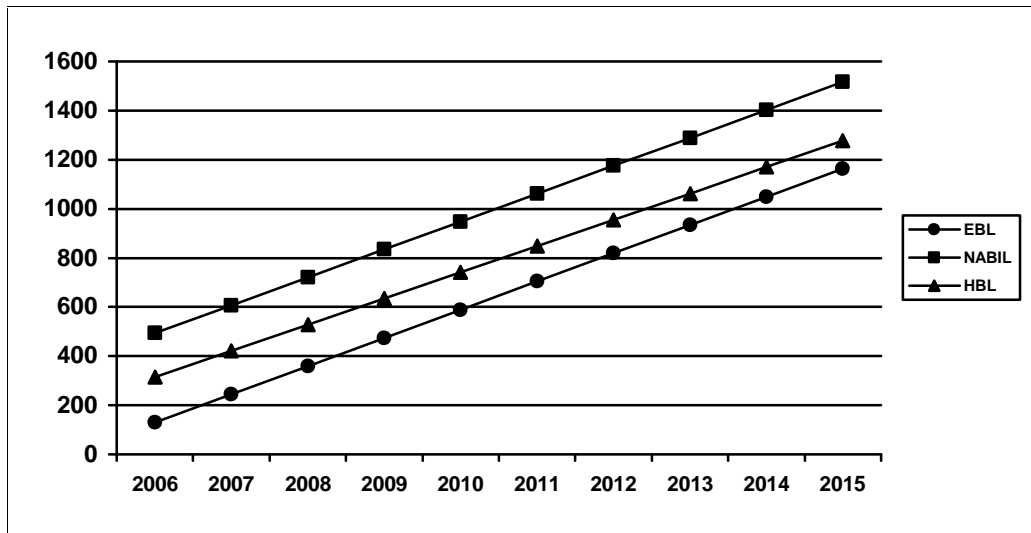
Trend Value of Net Profit of EBL, NABIL and HBL

Fiscal year	Trend Value of EBL	Trend Value of NABIL	Trend Value of HBL
2006	129.28	493.90	315.79
2007	244.25	607.44	422.5
2008	359.24	721.084	529.21
2009	474.19	834.67	635.92
2010	589.16	948.26	742.63
2011	704.13	1061.85	849.34
2012	819.10	1175.44	956.05
2013	934.07	1289.03	1062.76
2014	1049.04	1402.62	1169.47
2015	1164.014	1516.21	1276.18

(Source: Appendix No. 25, 26, 27)

The above table 4.18 shows the net profit all three banks have the increasing trend value. The net profit of EBL will be 1164.014 million in the mid July 2015. Similarly net profit of NABIL will be 1516.21 million, which is the highest amount among the three banks. Net profit of HBL will be 1276.18 million, which is mid value among three banks during the study period.

Figure 4.10
Trend Value of Net Profit of EBL, NABIL and HBL



From this trend analysis it can be said that the net profit of EBL is the lowest among the banks which shows i.e. $1516.21 > 1276.18 > 1164.014$ million in the year 2015. The above calculated trend values of all three banks are fitted in the trend line.

4.2.2 Coefficient of Correlation Analysis

In this heading Karl Pearson coefficient of correlation (Direct Method) is used to find out the relationship between deposit and loan and advances. Deposit and total investment and outside assets and net profit and so on.

Table 4.19

i) Coefficient of Correlation Between Deposit and Loan and Advances

Banks	Evaluation Criterions		
	R	P.E.	6 P.E.
EBL	0.99704	0.001841	0.01084
NABIL	0.990175	0.0058982	0.035389
HBL	0.9782	0.01031	0.06192

(Source: Appendix No 6, 7, 8)

The table 4.19 shows the value of r , P.E, 6 P.E. between deposit and loan and advances of EBL with comparison to NABIL and HBL for the study period 2005/06 to 2009/10. From this table, it has been found that the coefficient of correlation between Deposit i.e. independent variable loan and advances dependent variable of EBL is 0.99704. It shows the highly correlated the variables. Similarly considering the value of r is greater than the value of 6P.E.which reveals EBL is capable to deposit. Likewise, the coefficient of correlation between deposit and loan and advances in the case of NABIL and HBL are 0.99175 and 0.9782.

On the basis of comparison between the value of ' r ' and 6 P.E. there is no significant correlation between two variables because the value of ' r ' i.e. 0.99175 and 0.97820 is lesser than that of the value 6 P.E.i.e. 0.06689 and 0.06192. The above analysis clears that; the value of ' r ' in case of EBL is significant correlation between mobilizations of funds return. But in the case of NABIL and HBL the value of ' r ' is far less than 6P.E. so both banks have no significant correlation between mobilization of funds and returns.

ii) Coefficient of Correlation between Deposit and Net Profit

The coefficient of correlation between deposit and net profit measures the degree of relationship between these two variables. Here deposit (X) is independent variable and net profit (Y) is dependent variable. The objectives of computing between these two variables are to justify whether net profit is significantly correlated with deposits or not.

The following table 4.33 shows the value of ' r ', P.E., 6 P.E. between deposit and net profit of EBL, NABIL and HBL during the stuffy period.

Table 4.20
Coefficient of Correlation Between Deposit and Net Profit

Banks	Evaluation Criteria		
	R	P.E.	6 P.E.
EBL	0.99669	0.001993	0.011961
NABIL	0.92641	0.04277	0.2566
HBL	0.96961	0.0181	0.1084

(Source: Appendix No. 28, 29, 30)

From this table 4.20, it has been found that the coefficient of correlation between total deposits and net profit of EBL is 0.99699, which indicated the highly correlated between these variables. Similarly, the value of 6 P.E. is lesser than the value of r i.e. $0.011961 < 0.99694$ which states that there exists a significant relationship between deposits and net profit.

The coefficient of correlation between deposits and net profit in case of NABIL 0.92641 which indicated a positive relationship between deposit and net profit. The value of ' r ' is greater than that of the value of 6P.E. This states that there is significant relationship between these variables.

Similarly the coefficient of correlation between these variables in case of HBL is 0.96961, which indicated positive relation. The value of 6 P.E. are lesser than the value of r i.e. $0.1084 < 0.96961$ that means there is significant correlation relationship between two variation.

The above analysis clear that, the value of r in case of EBL is significant relationship between deposit and net profit. HBL also shows the positive relationship. The value of (r^2) in case of NABIL shows lower percentages of dependency than EBL and higher percentage of dependency than HBL. The increase in net profit in case of NABIL is due to effective mobilization of deposits and other factor have a less or role to play in increase in net profit. NABIL has not been more successful as EBL in mobilization of its deposits.

iii) Coefficient of Correlation between Deposit and Interest Earned

The coefficient of correlation between deposits and interest earned measure the relationship between these two variables. Deposits are independent variable (X) and an interest earned is dependent variable (Y). The objectives of calculating r between two variables are to justify whether deposit is significantly used to earn interest or not.

The table 4.21 shows the value of 'r', P.E. and 6P.E of EBL, NABIL and HBL during the study period.

Table 4.21
Coefficient of Correlation Between Deposit and Interest Earned

Banks	Evaluation Criteria		
	R	P.E.	6 P.E.
EBL	0.99810	0.001146	0.006877
NABIL	0.97720	0.01360	0.08162
HBL	0.97590	0.01440	0.08620

(Source: Appendix No. 31, 32, 33)

The coefficient of correlation 'r' between deposit and interest earned of EBL is 0.99810, which indicates the highly correlated between these variables. When deposits increase the interest earned subsequently increased but when it fall the interest earned also fell. Similarly considering the value of 'r' and comparing with 6P.E. it has been found that the value of r is greater than the value of 6P.E.. This shows that it has significant relationship between deposit and interest earned.

The coefficient of correlation 'r' between two variables in case of NABIL and HBL are 0.97720 and 0.97590 which indicates that 97.77% and 97.59% of the variation of dependent variable has been explained by independent variables. The value of 'r' in case of NABIL has higher than that of 6P.E. This states that there is a significant relationship between deposit and interest earned. Where as the value of r in case of NABIL has lesser value of 6 P.E. i.e. $0.97720 > 0.08162$ which states that there is no significant relation between deposit and interest earned.

After above analysis it can be concluded that the relationship between deposit and interest earned in case of EBL is highly significant with showing higher dependency. It

has effectively mobilization of deposits which has had a major role to play in its earning; where as other factors are responsible in the earnings of NABIL.

iv) Coefficient of Correlation between Loan and Advances and Interest Paid

It measures the relationships between these variables. Here, loan and advances is independent variables (X) and interest paid in dependent variable (Y). The purpose of calculating 'r' between these variables is to established whether increase in loan and advances has play any role in decreasing in interest expenses.

The table 4.22 shows the values of 'r', P.E and 6 P.E. of EBL, NABIL and HBL during the study period.

Table 4.22
Coefficient of Correlation between Loan and Advances and Interest Paid

Banks	Evaluation Criteria		
	R	P.E.	6 P.E.
EBL	0.9777	0.01330	0.07981
NABIL	0.99460	0.003249	0.01949
HBL	0.98112	0.011293	0.06776

(Source: Appendix No. 34,35,36)

The coefficient of correlation between loan and advances and interest paid in the case of EBL is 0.9777. It shows the highly correlation between two variables. The value of r is greater than value of 6 P.E.in case of EBL which states that there is significant relationship between loan and advances and interest paid. Similarly the coefficient of correlation between loan and advances and interest paid in the case of NABIL and HBL are 0.99460 and 0.98112. They show the positive relationship between these variables. Again considering, the value of r and comparing with 6 P.E.in both cases it is lesser than 6 P.E. which reveals that the value is not significant relationship between two variables.

In conclusion, it can be clear that the relationship between loan and advances and interest in case of Nabil is highly significant than both other banks. It is successful to utilize the loan and advances. In case of EBL and HBL have no relationship could be established between the loan and advances and interest paid.

iv) Coefficient of Correlation between Total Working Fund and Net Profit

The coefficient of correlation between the total working fund and net profit measures the degree of relationship between them. Here, total working fund is taken as independent variable (X) and net profit is taken as dependent variable(Y). The main purpose of calculating 'r' is to justify where total working fund is significantly used to generate earnings or in other words whether these variables are significantly correlated or not.

The table 4.23 shows the value of 'r', P.E, 6 P.E. between these two variables of EBL, NABIL and HBL.

Table 4.23
Coefficient of Correlation between Total Working Fund and Net Profit

Banks	Evaluation Criteria		
	R	P.E.	6 P.E.
EBL	0.9929	0.004268	0.0256
NABIL	0.94206	0.033942	0.20365
HBL	0.97288	0.016141	0.09684

(Source: Appendix No. 37, 38, 39)

The coefficient of correlation 'r' between total working fund and net profit in case of EBL is 0.9929 which indicates highly correlation between these variables. Similarly considering the value of 'r' 0.9929 and comparing it with 6 P.E. 0.0256, the value of 'r' is greater than the value of 6P.E, so it is significant relation between these variables.

Similarly the value of 'r' between these variables in case of HBL is 0.97288, which shows the very positive relationship. In case of NABIL its value is 0.94206 that means it has significant relation between these variable. The value of 6 P.E.is less than 'r' i.e. $0.94206 < 0.20365$ in case of NABIL. So there is not significant relation. But, the value of 'r' is lesser than 6 P.E. in case of HBL, so there is significant relationship between these variables.

After analysis the conclusion can be drawn that EBL and HBL are significant relationship between these variable, which indicated that total working fund is

significantly used to generate earnings. In case of NABIL there is not significant relation so fell to generate earnings or in other words these variables are significant correlated.

4.2.3 Test of Hypothesis

i) Test of Hypothesis on Loans and Advances to Total Deposits Ratio.

To test the ratios of loans and advances to total deposits of EBL, NABIL and HBL are taken under statistical tools T-test has been done.

Table 4.24

Loans and Advances to Total Deposits Ratios between EBL, NABIL and HBL

Fiscal Year	EBL			NABIL			HBL		
	x_1	X_1	X_1^2	X_2	X_2	X_2^2	X_3	X_3	X_3^2
2005/06	75.45	-1.83	3.3489	72.57	3.216	16.34	51.37	-7.816	61.08
2006/07	71.01	-2.16	6.8121	66.79	-2.564	6.5740	55.27	-3.916	15.335
2007/08	73.48	-0.14	0.0196	66.60	-2.754	7.5845	56.57	-2.616	6.843
2008/09	76.49	2.82	8.2369	66.94	2.414	5.8273	61.23	2.044	4.1779
2009/10	71.67	-1.95	3.8025	73.87	4.516	20.3942	71.49	12.304	151.38
Total	368.1		22.28	346.77		50.72	295.93		238.82

We have,

$$\begin{aligned} \bar{X}_1 &= \frac{\sum X_1}{n} = \frac{368.1}{5} = 73.62 \\ \bar{X}_2 &= \frac{\sum X_2}{n} = \frac{346.77}{5} = 69.354 \\ \bar{X}_3 &= \frac{\sum X_3}{n} = \frac{295.93}{5} = 59.186 \end{aligned}$$

Test of Significance of Difference between EBL and NABIL

To test the significant relationship between EBL and NABIL under statistical tool, Test has been done.

We have,

$$L X \frac{\overline{X_1} - \overline{X_2}}{\sqrt{sp^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where,

$$sp^2 = \frac{1}{n_1 + n_2 - 2} \left(\sum X_1^2 - \frac{(\sum X_1)^2}{n_1} + \sum X_2^2 - \frac{(\sum X_2)^2}{n_2} \right)$$

$$= \frac{1}{5 + 5 - 2} \left(22.28 - \frac{50.72^2}{5} + 50.72 - \frac{50.72^2}{5} \right)$$

$$= 9.125$$

Now,

Test statistics under H_0 is,

$$t = \frac{73.62 - 69.354}{\sqrt{9.125 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$= 2.2329$$

With degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The calculated value of (t) = 2.2329

The calculated value of t at $\alpha = 0.05$ of 5% level of significance for one tailed test and for 8 degree of freedom is 1.860 i.e. $t_{0.05}(8) = 1.860$

Decision, since the calculated value of t i.e. 2.2329 is greater than the tabulated value 1.860, the null hypothesis (H_0) is rejected. This means that there is significant difference between mean ratios of loans and advances to total deposit of EBL and NABIL.

b. Test of Significance Difference between EBL and HBL

To test the significant relationship between EBL and HBL under statistical tool, T-test has been done.

We have,

$$t = \frac{\overline{X_1} - \overline{X_3}}{\sqrt{sp^2 \left(\frac{1}{n_1} + \frac{1}{n_3} \right)}}$$

Where,

$$s_p^2 = \frac{1}{n_1 + n_2 - 2} (X_1^2 + X_2^2 + X_3^2)$$

$$= \frac{1}{5 + 5 - 2} (22.64 + 238.82 + 32.64)$$

$$= 32.64$$

Now,

Test statistics under H_0 is,

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{s_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$= 3.9947$$

With degree of freedom = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The calculated value of (t) = 3.9947

The tabulated value of at 5% level of significance for one tailed test and for 8 degree of freedom (D.F) is 1.860 i.e. $t_{0.05}(8) = 1.860$

Decision, since the calculated value of t is 3.9947 is lesser than the tabulated value 1.860, the null hypothesis (H_0) is accepted. This means there is no significant difference between mean ratios of loans and advances to total deposit of EBL and HBL.

ii) Test of Hypothesis on Total Investment to Total Deposit Ratio.

This ratio of total investment to total deposit of EBL, NABIL and HBL are taken and carried out under t- test of significance difference.

Table 4.25

Total Investment to Total Deposit Ratio of EBL, NABIL and HBL

Fiscal Year	EBL			NABIL			HBL		
	x_1	X_1	X_1^2	X_2	X_2	X_2^2	X_3	X_3	X_3^2
2005/06	21.08	-2.494	6.22	29.25	-2.674	7.1502	48.35	9.188	84.82
2006/07	30.43	6.856	47.00	31.93	0.006	0.00063	41.11	1.948	3.794
2007/08	27.41	3.836	14.71	38.32	6.396	40.90	39.34	0.178	0.03168
2008/09	21.10	-2.474	6.12	31.14	-0.514	0.2641	41.89	2.728	7.442
2009/10	17.85	-5.724	32.76	28.98	-2.944	8.667	25.12	14.042	197.17
Total	117.87		106.81	159.62		56.981	195.81		292.87

We have,

$$\begin{aligned} \bar{X}_1 &= \frac{\sum x_1}{n} & \bar{X}_2 &= \frac{\sum x_2}{n} & \bar{X}_3 &= \frac{\sum x_3}{n} \\ &= \frac{117.87}{5} & &= \frac{159.62}{5} & &= \frac{195.81}{5} \\ &= 23.574 & &= 31.924 & &= 39.162 \end{aligned}$$

$$\text{Again, } X_1 = x_1 - \bar{X}_1 \quad X_2 = x_2 - \bar{X}_2 \quad X_3 = x_3 - \bar{X}_3$$

a. Test of Significance Difference between EBL and NABIL

To test the significant relationship between EBL and NABIL under statistical tool, Test has been done.

We have,

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{Sp^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where,

$$Sp^2 = \frac{1}{5+5-2} \left(106.81 + 56.981 \right) = 20.474$$

Now,

Test statistics under H_0 is,

$$t = \frac{23.574 - 31.924}{\sqrt{20.474 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$t = 3.8647$$

with degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The calculated value of $t = 3.8647$

The tabulated value of t at $\alpha = 0.05$ level of significance for one tailed test and for 8 degree of freedom is 1.860 i.e. $t_{0.05}(8) = 1.860$

Decision:

Since the calculated value of t i.e. 3.8647 is greater than the tabulated value i.e. 1.860. The null hypothesis is accepted. This means there is no significance difference between mean ratios of total investment to total deposit of EBL and NABIL.

b. Test of Significance Difference between EBL and HBL

To test the significant relationship between EBL and HBL under statistical tool, T-test has been done.

We have,

$$t = \frac{\bar{X}_1 - \bar{X}_3}{\sqrt{Sp^2 \left(\frac{1}{n_1} + \frac{1}{n_3} \right)}}$$

Where,

$$Sp^2 = \frac{1}{n_1 + n_3 - 2} (\sum x_1^2 + \sum x_3^2)$$

$$sp^2 = \frac{1}{5 + 5 - 2} (106.81 + 292.87)$$

$$= 49.96$$

Now,

Test statistics under H_0 is,

$$t = \frac{117.87 - 195.81}{\sqrt{49.96 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$t = - 17.43$$

The calculating value of $t = - 17.4348$

With degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The tabulating value of at 5% level of significance for $(n_1 + n_2 - 2)$ degree of freedom in a one tailed test is 1.860 i.e. $t_{0.05} (8) = 1.860$

Decision:

Since, the calculated value of t i.e. -17.4348 is less than the tabulated value 1.860. So the null hypothesis is accepted i.e. there is no significance difference between mean ratio of total investment to total deposit of EBL and HBL.

iii) Hypothesis test of Investment of Government Securities to Current Assets Ratio

Table 4.26

Investment of Government Securities to Current Asset Ratio

Fiscal Year	EBL			NABIL			HBL		
	x ₁	X ₁	X ₁ ²	X ₂	X ₂	X ₂ ²	X ₃	X ₃	X ₃ ²
2005/06	73.60	-7.556	57.093	70.71	-	268.43	80.69	2.25	5.0625
2006/07	85.99	4.33	18.75	73.25	6.156	37.89	81.31	-1.63	2.6569
2007/08	82.09	0.93	0.8649	86.26	-0.834	0.695	80.52	-2.42	5.8564
2008/09	85.89	4.73	22.37	100.05	12.956	167.85	88.51	5.57	31.024
2009/10	78.21	-2.95	8.7025	85.20	-1.894	3.587	83.60	0.66	0.4356
Total	405.78		107.78	435.47		477.82	414.69		45.363

We have,

$$\bar{X}_1 = \frac{\sum x_1}{n}$$

$$\bar{X}_2 = \frac{\sum x_2}{n}$$

$$\bar{X}_3 = \frac{\sum x_3}{n}$$

$$\bar{X}_1 = \frac{405.78}{5}$$

$$\bar{X}_2 = \frac{435.47}{5}$$

$$\bar{X}_3 = \frac{414.69}{5}$$

$$= 81.16$$

$$= 87.094$$

$$= 82.94$$

Again, $X_1 = x_1 - \bar{X}_1$

$X_2 = x_2 - \bar{X}_2$

$X_3 = x_3 - \bar{X}_3$

a. Test of Significance of Difference between EBL and NABIL

To test the significant relationship between EBL and NABIL under statistical tool, T test has been done.

We have,

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{Sp^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where,

$$Sp^2 = \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2)$$

$$\frac{1}{5 + 5 - 2} (107.78 + 477.82)$$

$$= 73.2$$

Now,

Test statistics under H_0 is,

$$t = \frac{405.78 - 435.47}{\sqrt{73.2 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$t = -5.48686$$

The calculated value of $t = -5.48686$

With degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The tabulated value of t at 5% level of significance for $(n_1 + n_2 - 2)$ degree of freedom on a one tailed test is 1.860 i.e. $t_{0.05}(8) = 1.860$

Decision:

Since the calculated value of i.e. 1.4455 is less than the tabulated value i.e. 1.860. The null hypothesis is accepted. This means there is no significance difference between mean ratio of investment on government securities to current assets ratio of EBL and NABIL.

b. Test of significance of difference between EBL and HBL

To test the significant relationship between EBL and HBL To test the significance relationship between EBL and HBL under statistical tool, T-test has been done.

We have,

$$t = \frac{\bar{X}_1 - \bar{X}_3}{\sqrt{Sp^2 \left(\frac{1}{n_1} + \frac{1}{n_3} \right)}}$$

Where,

$$Sp^2 = \frac{1}{n_1 + n_3 - 2} (\sum x_1^2 + \sum x_3^2)$$

$$\frac{1}{5 + 5 - 2} (107.78 + 45.0363)$$

$$= 19.10$$

Now,

Test statistics under H_0 is,

$$t = \frac{405.78 - 414.69}{\sqrt{19.10 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$t = -3.2235$$

The calculated value of $t = -3.2235$

With degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The tabulated value of t at 5% level of significance for $(n_1 + n_2 - 2)$ degree of freedom on a one tailed test are 1.860 i.e. $t_{0.05}(8) = 1.860$

Decision,

Since the tabulated value of $t = -3.2235$ which is less than the tabulated value 1.860. So the null hypothesis is accepted i.e. there is no significance difference between mean ratio of investment on government securities to current assets ratio of EBL and HBL.

iv) Hypothesis Test of Return on Loans and Advances Ratio of EBL, NABIL and HBL

Table 4.27

Loans and Advances to Current Assets Ratio of EBL, NABIL and HBL

Fiscal Year	EBL			NABIL			HBL		
	X ₁	X ₁	X ₁ ²	X ₂	X ₂	X ₂ ²	X ₃	X ₃	X ₃ ²
2005/06	2.24	-0.154	0.0237	4.90	0.624	0.3894	2.48	-0.461	0.2125
			6						
2006/07	2.42	0.026	0.0007	4.92	0.644	0.4147	3.12	0.179	0.03204
2007/08	2.18	-2.14	0.0458	4.34	0.064	0.0041	2.89	-0.051	0.0026
2008/09	2.46	0.066	0.0044	3.49	-0.786	0.6178	3.18	0.239	0.05712
2009/10	2.67	0.276	0.0762	3.73	-0.546	0.2981	3.035	0.094	0.0088
Total	11.97		0.1508	21.38		1.7241	14.705		0.3131

We have,

$$\bar{X}_1 = \frac{\sum x_1}{n} \quad \bar{X}_2 = \frac{\sum x_2}{n} \quad \bar{X}_3 = \frac{\sum x_3}{n}$$

$$X \frac{11.97}{5} \quad X \frac{21.38}{5} \quad X \frac{14.705}{5}$$

$$= 2.394 \quad = 4.276 \quad = 2.941$$

Again, $X_1 = x_1 - \bar{X}_1$ $X_2 = x_2 - \bar{X}_2$ $X_3 = x_3 - \bar{X}_3$

a. Test of Significance of Difference between EBL and NABIL

To test the significant relationship between EBL and NABIL under statistical tool, t-test has been done.

We have,

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{Sp^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where,

$$Sp^2 = \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2)$$

$$Sp^2 = \frac{1}{5 + 5 - 2} (0.1508 + 1.7241)$$

$$= 0.2344$$

Now,

Test statistics under H_0 is,

$$t = \frac{11.97 - 21.38}{\sqrt{0.2344 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$t = -30.7313$$

The calculated value of $t = -30.7313$

With degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The tabulated value of t at 5% level of significance for $(n_1 + n_2 - 2)$ degree of freedom on a one tailed test is 1.860 i.e. $t_{0.05}(8) = 1.860$

Decision,

Since, the calculated value of $t = -30.7313$ is less than the tabulated value 1.860. So the null hypothesis is accepted i.e. there is no significance difference between mean ratio of loan and advances to current assets ratio of EBL and NABIL.

b. Test of Significance of Difference between EBL and HBL

To test the significant relationship between EBL and HBL under statistical tool, T-test has been done.

We have,

$$t = \frac{\bar{X}_1 - \bar{X}_3}{\sqrt{Sp^2 \left(\frac{1}{n_1} + \frac{1}{n_3} \right)}}$$

Where,

$$Sp^2 = \frac{1}{n_1 + n_3 - 2} (\sum x_1^2 + \sum x_3^2)$$

$$= \frac{1}{5 + 5 - 2} (0.1508 + 0.3131)$$

$$= 0.05798$$

Now,

Test statistics under H_0 is,

$$t = \frac{11.97 - 14.705}{\sqrt{0.5798 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$t = -17.9581$$

The calculated value of $t = -17.9581$

With degree of frequency = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

The tabulated value of t at 5% level of significance for $(n_1 + n_3 - 2)$ degree of freedom on a one tailed test is 1.860 i.e. $t_{0.05}(8) = 1.860$.

Decision,

Since the tabulated value of $t = -17.9581$ is less than the tabulated value i.e. 1.860. So the null hypothesis is accepted i.e. there is no significance difference between mean ratio of loan and advances to current assets ratio of EBL and HBL.

4.2.4 Regression Analysis

Regression of Working Fund Capital and Net Profit

Regression is the statistical tool which is used to determine the statistical relationship between two or more variables and so make estimate of one variable on the basis of the other variable. Regression is the line which gives the best estimate of one variable for any given value of the other variable. The regression line of Y on X estimate the most probable values of Y for given values of X .

X is independent variable

Y in dependent variable

The regression equation of Y on X expressed as $Y = a + bx$

Where, a and b are parameters of the line.

To find out the exact relationship between different variable simple regressions analysis has been done and results of the analysis have been table.

The table shows the regression equation of net profit and net working fund in EBL, NABIL and HBL. According to the table regression equation of net profit on net working fund $Y = 68.8605 + 0.01890X$ in EBL is positive. The regression coefficient is positive i.e. 0.01890 which indicates the positive relationship exists between net profit and net

working fund. In other word, one million increase in net working funds leads to average about 0.01890 million increase in net profit. The value of constant (a) is relatively low. The value of (a) indicates that if net working fund is 0 then the value of net profit is 68.8605 million. So from analysis it shows that the net profit will be decrease and net working fund also decrease.

Table 4.28

Calculation of Regression Equation between Net Profits on Total Working Fund

Banks	Regression equation	Value (a) constant	Regression coefficient (b)
EBL	$Y = 68.8605 + 0.01890X$	a = 68.8605	b = 0.01890
NABIL	$Y = 239.9453 + 0.01628X$	a = 239.9453	b = 0.01628
HBL	$Y = 608.95 + 0.034304X$	a = 608.95	b = 0.03404

(Source: Appendix No. 40, 41, 42)

On the other hand, regression coefficient of (b) is positive in case of NABIL which indicates that one million increase in net working fund lead to an average about Rs. 0.01628 increases in net profit. According to the above table regression equation of net profit on net working fund regression coefficient is positive which reveals the positive relationship between net and working fund.

The test of t statistics helps us to conclude that in all three cases the results are not statistically significant at 5% level of significance since the value of t is smaller than tabulated value.

Table 4.29

Calculation of Regression Equation between Net Profits on Total Deposit

Banks	Regression equation	Value (a) constant	Regression coefficient (b)
EBL	$Y = 47.9787 + 0.02048X$	$a = 47.9787$	$b = 0.02049$
NABIL	$Y = 228.56 + 0.019461X$	$a = 228.56$	$b = 0.019461$
HBL	$Y = 1671.59 + 0.074413X$	$a = 1671.59$	$b = 0.074413$

(Source: Appendix No. 43, 44, 45)

The above table is the collection of major output of simple regression analysis of net profit on total deposit.

The regression equation of net profit (Y) dependent variable on total deposit (X) independent variable $Y = 47.9787 + 0.02049X$ in EBL is positive i.e. 0.02049 which indicates the positive relationship exists between net profit and total deposit or it can be said that one million increase in total deposit leads to average 0.02049 million increase in net profit. The value of constant (a) is relatively low. Similarly in case of HBL the regression coefficient is positive or in other words one million increases in total deposit leads to average about 0.074413 million increase in net profit. The value of constant (a) indicates that the net profit can be increase and total deposit also increase. The regression coefficient of (b) is positive in case of NABIL i.e. 0.019461 which indicates that one million increase in total deposit leads to an average about 0.019461 increases in net profit. The regression coefficient is positive which reveals the positive relationship between net profit and total deposit.

From the test of 't' statistics it can be concluded that in all three cases the results are not statistically significant at 5% level of significance since the value of t is smaller than tabulated value.

4.3 Major Findings of the Study

1. The current ratio of EBL shows the fluctuating trend during the study period. The ratio ranges from lowest 1.0661 in 2005/06 to highest 2.3827 in 2006/07 an average ratio of 1.9927. The mean ratio of EBL is higher than NABIL and slightly lower than HBL. In general, the current ratio analysis of banks over the five years period

indicates that it has been able to meet its short-term obligations and has satisfactory liquidity position.

2. The mean ratio of cash and bank balance to current assets of EBL is higher than NABIL and HBL. It states that liquidity position of EBL is better in this regard. The C.V between them is 23.56%. On the basis of C.V the ratios are seemed to be variable. EBL is better position in maintaining its cash and bank balance to meet its daily requirement to make the payments on customers deposit withdrawal in comparison with NABIL and HBL.
3. The loans and advances to total deposit ratio of EBL has in increasing trend. The mean ratio of EBL is higher than NABIL and higher than HBL. The mean ratio is 73.62% with 7.57% C.V which shows that the ratios are satisfactory consistent over the study period.
4. Investment to total deposit of all three banks has in fluctuating trend during the study period. The mean ratio of total investment to total deposit of EBL is in between the NABIL and HBL. The highest ratio is 30.43% and lowest is 17.85% with mean ratio 23.57% and C.V of 19.69%. It is highest NABIL and HBL so the ratio is less consistent and more variable. 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.
5. The mean ratio of return on loans and advances ratio of EBL is higher than HBL and is lowest than NABIL. The mean of the ratio is found to be 2.394% with C.V of 7.25%, which indicates that the ratios are less variable. The average ratio of 7.25% suggests that the earning capacity of the banks loan and advances is not satisfactory.
6. Return on total working fund ratios are in fluctuating trend during the study period. Its ratio ranges from 1.39% to 1.73%. The mean ratio of EBL is in between NABIL and HBL i.e. EBL ratio is 1.544% with C.V of 8.37%. This indicates that the ratios are less variable and consistent than that of other compared banks.
7. Similarly, loan and advances of the banks are also increasing trend. The growth rate of EBL is higher than that of NABIL. It has maintained growth rate of 33.06%, where as NABIL and HBL has 27.05% and 18.85% respectively. So the performance of

NABIL to grant loan and advances in comparison to other bank is year by year and EBL also maintained the average performance to grant loan and advances in study period.

8. The total investment of studies banks are fluctuating trend during the study period. The growth ratio of EBL total investment is in between the NABIL and HBL. EBL has maintained growth ratio of 29.29%, which is higher than HBL (7.09%) and higher than NABIL (26.21%). It shows that EBL has successful in investing than the other bank.
9. The total net profit of studies banks are also in increasing trends during the study periods. The growth ratio of NABIL net profit is highest of all. It has the rate of 39.06% whereas NABIL and HBL have 18.74% and 25% respectively. It means the performance of EBL to earn profit is better year by year.
10. The trend analyses of total deposit of EBL, NABIL and HBL have increasing trend. From the trend analysis it is forecasted that the total deposit of EBL in 2014/15 will be Rs 59514.13 million. Similarly the total deposit of NABIL and HBL will be 65970.92 and 47136.11 million in the third mid July of 2014 respectively. The deposit collection of NABIL is better than that of EBL and HBL.
11. Total investments of EBL NABIL and HBL have in increasing trend. The total investment of the EBL by the year 2014 is projected to be 10413.09 million. Similarly the total investment of NABIL will be 19847.09 million which is highest among the study period. The total investments of HBL will be 8832.64 million.
12. The net profits of all three banks have the increasing trend. The net profit of NABIL by the year 2014 is projected to be 1516.21 million, which is the highest value under the study period. Similarly the total net profit of EBL and HBL will be 1164.014 and 1276.18.million respectively.
13. The coefficient of correlation between deposits and interest earned of the HBL is 0.9981 and probable error multiplied by five is found to be 0.006877. Since 'r' > 6P.E it is positively and significantly relationship between these variables. The value of 'r' in case of HBL and NABIL also higher than the value 6P.E so the relation is significant. So EBL has effectively mobilization of deposits which has had major role to play in its earnings in compared with NABIL and HBL.

14. The coefficient of correlation 'r' between total working fund and net profit of the EBL is 0.9929 which is highest among other banks. Its probable error multiplied by six is found to be 0.0256. Since 'r' > 6P.E. and 'r' is positive. There is positive correlation between total working fund and net profit during the study period.
15. The calculated value of 't' is lesser than that of tabulated value of EBL and NABIL and HBL. This indicates there are significant differences between mean ratio of loan and advances to current assets of EBL, NABIL and HBL. It must invest its collected funds as and bank balance in order to make high profit by mobilizing its funds by keeping some amount as liquidity.
16. There is no significant relationship between mean ratio of return on loan and advances of EBL and NABIL, EBL and HBL. They have failed to employ its resources in the form of loan and advances.

CHAPTER -V

SUMMARY, CONCLUSIONS AND 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 EBL, NABIL and HBL 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 29 commercial banks have been operating in Nepal which are considered to be the population of the study and out of them three commercial banks i.e. EBL, NABIL, HBLhas 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 2005/06 to 2009/10) were selected for the purpose of evaluation.

5.2 Conclusion

As per objective and analysis and objective of the study following conclusions have been drawn:

- i. The liquidity position of EBL is comparatively better than NABIL and HBL
All the three banks have meet the normal standard current asset ratio to meet the short term obligation of costumers.
- ii. From the analysis of assets management ratio it is found that EBL is the better position.
- iii. The profitability ratio of EBL in comparison to the other two banks is better as well as stable.
- iv. The growth ratio of total deposit, loan and advance, total investment, net profit shows that EBL is in the best position.
- v. The coefficient of correlation 'r' between total working fund and net profit of the EBL is 0.9929 which is the highest among the other banks.
- vi. The trend of the total investment, total deposit, loan and advances and net profit of EBL NABIL and HBL is in increasing trend. The deposit collection of NABIL is better.
- vii. Test of hypothesis shows that there is significance difference in loan advances to total deposits between EBL, NABIL and HBL.

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. The ratio of cash and bank balance to total deposit and current assets of EBL is higher than that of NABIL and HBL It means EBL 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. In practice joint ventured banks are urban based; service quite a few elite, a fluent big customer are heavily dependent on free based activities. To overcome its situation they should be accessible to rural areas and possible loan and advances to its deposit. So the customers is enjoying by getting deposit borrowing and other services.
3. EBL has invested its more of the funds that is total investment on total deposit ratio but the percentages of investment on share and debenture is nominal. So it is suggested to invest more of its fund in share and debenture of different companies.
4. NABIL loan and advances to total deposit ratio is lowest in compared to other banks. To overcome from the situation it is recommended to follow liberal lending policy and invest more and more of total deposit in loan and advances and maintain stability on the investment policy.
5. EBL and HBL's loan loss ratio is increased year by year. So these banks are recommended that before providing the loan make sure that your clients is in good character and able to pay its loan or may take the collateral which is nearly two times more than that of your guaranteed.

6. Profitability ratios of banks are not satisfactory, if resources held idle bank have to beared more cost and result would be lower profit margin. So portfolio condition of a bank should be regularly revised from time to time. It should always try to maintain the equilibrium in the portfolio condition of the bank. The bank should use its funds in more portfolio sectors. It should utilize its risky assets and shareholders funds and it should reduce its express and should try to collect cheaper fund being more profitable.
7. It is seen that EBL has invested much of its fund in total outside assets but it has not achieved the desired result. So EBL should play tactfully while investing its fund keeping in mind the interest rate.
8. In the light of growing competition in the banking sector the business of the bank is customer oriented. It should strengthen and active its marketing function, as it is an effective tool of attracting and retaining customers. The bank should develop on "Innovative approach to bank marketing and formulate new strategies of serving customers in a more convenient way.
9. The investment policy of EBL is good in every aspect as studied above but the consistency in the above investment sectors is in equilibrium states. It is found that at time bank focuses much of its attention to one sector leaving other sector untouched, so it is recommended to touch all the sectors and balance it effectively as to have the optimal performance of the bank.

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.

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APPENDICES

Appendix:-1

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Rs. In million

Banks	EBL			NABIL			HBL		
Fiscal year	Current Assets	Current Liabilities	Ratio (Times)	Current Assets	Current Liabilities	Ratio (Times)	Current Assets	Current Liabilities	Ratio (Times)
2005/06	113988	47839	2.3827	120124	98525	1.2192	23336	11269	2.0708
2006/07	142268	73642	1.93189	169539	92585	1.8312	23785	11033	2.1558
2007/08	249460	113548	2.1969	201221	149236	1.3483	26999.95	23170	1.1653
2008/09	324300	172879	1.8758	173380	144690	1.1982	30041	19973	1.5048
2009/10	350522	222375	1.5762	295960	255260	1.1586	29813	27967	1.0661

Appendix:-2

$$\text{Cash and Bank Balance to total deposit ratio} = \frac{\text{Cash and bank balance}}{\text{Total deposit}}$$

Banks	EBL			NABIL			HBL		
Fiscal year	Cash & bank balance	Total deposit	Ratio (%)	Cash & bank balance	Total deposit	Ratio (%)	Cash & bank balance	Total deposit	Ratio (%)
2005/06	1049.10	10097.69	10.39	559.38	14586.66	3.83	740.52	8942.75	8.12
2006/07	1522.97	13802.44	11.25	630.29	19347.40	3.26	728.70	10485.65	6.96
2007/08	2391.42	18186.25	13.15	1399.82	23342.29	5.99	1315.90	12388.93	5.85
2008/09	2667.96	23976.29	11.23	2671.14	31915.04	8.37	1440.47	15833.75	4.55
2009/10	6164.37	33322.37	18.49	3372.51	37348.25	9.03	3048.52	34681.35	8.79

Appendix:-3

Cash and Bank Balance to Total current assets = $\frac{\text{Cash and bank balance}}{\text{Total current assets}}$

Banks		EBL			NABIL			HBL		
Fiscal year	Cash & bank balance	Current Assets	Ratio	Cash & bank balance	Current Assets	Ratio	Cash & bank balance	Current Assets	Ratio	
2005/06	1049.10	10352.13	10.13	559.38	14971.80	3.74	2014.47	15398.06	13.08	
2006/07	1522.97	11398.80	13.62	630.29	13857.50	4.55	1717.35	18008.80	9.536	
2007/08	2391.42	16278.17	14.69	1399.82	18021.20	7.77	1757.34	21109.33	8.325	
2008/09	2667.96	21353.06	12.49	2671.14	26594.94	12.51	1448.14	22029.74	6.573	
2009/10	6164.37	30541.21	20.18	3372.51	32380.29	10.41	3048.52	29634.74	10.29	

Appendix:-4

Loan and advances to Total current assets = $\frac{\text{Loan and advances}}{\text{Total current assets}}$

(Rs. In million)

Banks		EBL			NABIL			HBL		
Fiscal year	Loan and advances	Current Assets	Ratio (%)	Loan and advances	Current Assets	Ratio (%)	Loan and advances	Current Assets	Ratio (%)	
2005/06	7618.67	10352.13	73.60	10586.17	14971.80	70.71	12424.52	15398.06	80.69	
2006/07	9801.31	11398.80	85.99	12922.5	13857.50	93.25	14642.56	18008.80	81.31	
2007/08	13364.08	16278.17	82.09	15545.78	18021.20	86.26	16997.94	21109.33	80.52	
2008/09	18339.09	21353.06	85.89	21365.05	26594.94	100.05	19497.52	22029.74	88.51	
2009/10	23884.67	30541.29	78.21	27589.93	32380.029	85.20	24793	29634.74	83.66	

Appendix:-5

Loan and advances to Total Deposit Ratio = $\frac{\text{Loan and advances}}{\text{Total deposit}}$

(Rs. In million)

Banks		EBL			NABIL			HBL		
Fiscal year	Loan and advances	Total deposit	Ratio (%)	Loan and advances	Total deposit	Ratio (%)	Loan and advances	Total deposit	Ratio (%)	
2005/06	7618.67	10097.69	75.45	10586.17	14586.66	72.57	12424.52	24184.11	51.37	
2006/07	9801.31	13802.44	71.01	12922.5	19347.40	66.79	14642.56	26490.85	55.27	
2007/08	13364.08	18186.25	73.48	15545.78	23342.29	66.60	16997.99	30048.51	56.67	
2008/09	18339.09	23976.29	76.49	21365.05	31915.04	66.94	19497.52	31842.79	61.23	
2009/10	23884.67	33322.37	71.67	27589.93	37348.25	73.87	24793	34681.35	71.49	

Appendix:-6

Coefficient of correlation Between deposit and loan and advances of EBL

(Rs in million)

Fiscal year	Total Deposit(X)	loan and advances(Y)	x ²	y ²	XY
2006	10097.7	7618.67	101963343.3	58044132.57	76930967.87
2007	13802.4	9801.31	190507350	96065677.72	135281993.2
2008	18186.3	13664.3	330739689.1	186713367.8	248502557.7
2009	23976.3	18339.1	574862482.2	336322222	439703340.2
2010	74126.6	55307.5	1263099348	570478894.1	795894810.7
Total	99385.07	73308.08	2308453207	1247624294	169313670

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$= 0.99704$$

Coefficient of Determination(r²) = 0.99704 × 0.99704 = 0.9969

Probable (P.E.) = 0.6745 × 1 - r² / √n = 0.0081

6(P.E.) = 0.01084

Appendix:-7

Coefficient of correlation Between deposit and loan and advances of NABIL

(Rs in million)

Fiscal year	Total Deposit(X)	loan and advances(Y)	x ²	y ²	XY
2006	14586.7	10586.2	212770650	112066995.3	154416862.5
2007	19347.4	12922.5	374321886.8	166991006.3	250016776.5
2008	23342.3	15545.8	544862502.4	241671275.8	362874105
2009	31915.1	21365.1	1018570417	456465361.5	681866639
2010	37348.25	27589.31	1394891778	7611694745	1030412074
Total	126539	88008.99	3545422059	1738367507	2479590604

Coefficient of Correlation(r):

= 0.990175

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

Coefficient of Determination(r²) =

0.990175 × 0.990175 = 0.98044

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.2694 \quad 6(\text{P.E.}) = 1.6166$$

Appendix:-8

Coefficient of correlation Between deposit and loan and advances of HBL

(Rs in million)

Fiscal year	Total Deposit(X)	loan and advances(Y)	x ²	y ²	XY
2006	24184.011	12424.52	584866388	154368697.2	300474728.4
2007	26490.85	14642.56	701765133.7	214404563.4	387893860.6
2008	30048.51	16997.99	902912953.2	288931664	510764272.5
2009	31842.79	19947.52	1013963275	397903554.2	635184690.4
2010	34681.35	24793	1202796038	614692849	859854710.6
Total	147247.51	88805.59	4406303788	1670301328	2694174962

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9782$$

$$\text{Coefficient of Determination (r}^2\text{)} = 0.9782 \times 0.9782 = 0.9658$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.01031$$

$$6(\text{P.E.}) = 0.06192$$

Appendix:-9

Total investment to Total Deposit Ratio = $\frac{\text{Total investment}}{\text{Total deposit}}$

(Rs. In million)

Banks	EBL			NABIL			HBL			
	Fiscal year	Total investment	Total deposit	Ratio (%)	Total investment	Total deposit	Ratio (%)	Total investment	Total deposit	Ratio (%)
	2005/06	2128.90	10097.69	21.08	4267.23	14586.66	29.25	11692.34	24184.011	48.35
	2006/07	4200.52	13802.44	30.43	6178.53	19347.40	31.93	10889.03	26490.85	41.11
	2007/08	4984.31	18186.25	27.41	8945.31	23342.29	38.32	11822.98	30048.51	39.34
	2008/09	5059.56	23976.29	21.10	9939.77	31915.04	31.14	13340.18	31842.79	41.89
	2009/10	5948.48	33322.37	17.85	10826.4	37348.25	28.98	8710.69	34681.35	25.12

Appendix:-10

Coefficient of correlation Between Total deposit and Total investment of EBL

(Rs in million)

Fiscal year	Total Deposit(X)	Total investment(Y)	x ²	y ²	XY
2005/06	10097.69	2128.9	101963343.3	4532215.21	21496972.24
2006/07	13802.44	4200.52	190507350	17644368.27	57977425.27
2007/08	18186.25	4984.31	330739689.1	24843346.18	90645907.74
2008/09	23976.29	5059.56	574862482.2	25599147.39	121309477.8
2009/10	33322.37	5948.48	1110380342	35384414.31	198217451.5
Total	99385.04	22321.77	2308453207	108003491.4	489647234.6

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.87151$$

$$\text{Coefficient of Determination } (r^2) = 0.87151 \times 0.87151 = 0.75953$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.07251$$

$$6(\text{P.E.}) = 0.4351$$

Appendix:-11

Coefficient of correlation Between Total deposit and Total investment of NABIL

(Rs in million)

Fiscal year	Total Deposit(X)	Total investment(Y)	x ²	y ²	XY
2005/06	14586.66	4267.23	212770650	18209251.87	62244633.15
2006/07	19347.4	6178.53	374321886.8	38174232.96	119538491.3
2007/08	23342.29	8945.31	544862502.4	80018571	208804020.2
2008/09	31915.05	9939.77	1018570417	98799027.65	317228256.5
2009/10	37348.25	10826.4	1394891778	117210937	404347093.8
Total	126539.64	40157.24	3545401756	352412020.41	1112160024

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.94682$$

$$\text{Coefficient of Determination } (r^2) = 0.94682 \times 0.94682 = 0.89647$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.0312$$

$$6(\text{P.E.}) = 0.1873$$

Appendix:-12

Coefficient of correlation Between Total deposit and Total investment of HBL

(Rs in million)

Fiscal year	Total Deposit(X)	Total investment(Y)	X ²	y ²	XY
2006	24184.011	11692.34	584866388	136710814.7	282767679.2
2007	26490.85	10889.03	701765133.7	1185709743	288459660.4
2008	30048.51	11822.98	902912953.2	139782856.0	355262932.8
2009	31842.79	13340.18	1013945443	177960402.4	424788550.3
2010	34681.35	8710.69	1202795344	75876120.28	302098488
Total	147247.51	56455.22	4406285262	530330193.4	1653377250

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.97542$$

$$\text{Coefficient of Determination } (r^2) = 0.97542 \times 0.97542 = 0.9514$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.01464$$

$$6(\text{P.E.}) = 0.0878$$

Appendix:-13

Loan and Advances to Total working fund ratio = $\frac{\text{Total Loan and Advances}}{\text{Total working fund}}$

Banks	EBL			NABIL			HBL		
Fiscal year	Loan and Advances	Working fund	Ratio (%)	Loan and Advances	Working fund	Ratio (%)	Loan and Advances	Working fund	Ratio (%)
2005/06	7618.67	11792.12	64.61	10586.2	17186.33	61.60	12424.52	27418.16	45.31
2006/07	9801.31	15959.30	61.41	12922.5	22330.0	57.87	14642.56	29460.38	49.70
2007/08	13664.3	21432.27	62.35	15545.8	27253.39	57.06	16997.99	33519.14	50.71
2008/09	18339.1	27149.34	67.55	21365.1	37132.76	57.54	19497.52	36175.53	53.89
2009/10	23884.67	36916.85	64.70	27589.93	43867.39	62.89	24793.15	39320.32	63.054

Appendix:-14

Loan loss ratio = $\frac{\text{loan loss provision}}{\text{loan and advances}}$

(Rs. In million)

Banks	EBL			NABIL			HBL		
Fiscal year	Loan loss provision	Loan and advances	Ratio	Loan loss provision	Loan and advances	Ratio	Loan loss provision	Loan and advances	Ratio
2005/06	88.92	7618.67	1.17	4.207	10586.17	0.04	73.89	12424.52	0.59
2006/07	70.74	9801.31	0.72	3.38	12922.5	0.03	145.15	14642.55	0.99
2007/08	89.70	13364.08	0.65	14.21	15545.78	0.09	90.68	16997.99	0.53
2008/09	99.34	18339.09	0.54	64.06	21365.05	0.29	60.076	19947.52	0.030
2009/10	93.08	23884.67	0.39	45.72	27589.93	0.165	68.80	24793.1	0.277

Appendix:-15

$$\text{Return on loan and advances ratio} = \frac{\text{Net profit}}{\text{loan and advances}}$$

(Rs. In million)

Banks	EBL			NABIL			HBL		
Fiscal year	Net profit	Loan and advances	Ratio	Net profit	Loan and advances	Ratio	Net profit	Loan and advances	Ratio
2005/06	170.80	7618.67	2.24	518.64	10586.17	4.90	308.27	12424.52	2.48
2006/07	237.38	9801.31	2.42	635.30	12922.5	4.92	457.45	14642.55	3.12
2007/08	297.99	13364.08	2.18	673.96	15545.78	4.34	491.82	16997.99	2.89
2008/09	451.22	18339.09	2.46	746.47	21365.05	3.49	635.86	19947.52	3.18
2009/10	638.73	23884.67	2.67	1031.05	27589.93	3.73	752.63	24793.1	3.035

Appendix:-16

$$\text{Return on total working fund ratio} = \frac{\text{Net profit}}{\text{Total working fund}}$$

(Rs. In million)

Banks	EBL			NABIL			HBL		
Fiscal year	Net profit	Working fund	Ratio	Net profit	Working fund	Ratio	Net profit	Working fund	Ratio
2005/06	170.80	11792.12	1.45	518.64	17186.33	3.02	308.27	27418.16	1.12
2006/07	237.38	15959.30	1.49	635.30	22330.0	2.85	457.45	29460.38	1.55
2007/08	297.99	21432.27	1.39	673.96	27253.39	2.47	491.82	33519.14	1.47
2008/09	451.22	27149.34	1.66	746.47	37132.76	2.01	635.86	36175.53	1.76
2009/10	638.73	36916.85	1.73	1031.05	43867.39	2.35	752.63	39320.32	1.91

Appendix:-17

$$\text{Liquidity risk ratio} = \frac{\text{Cash and bank balance}}{\text{Total deposit}}$$

Banks	EBL			NABIL			HBL		
Fiscal year	Cash & bank balance	Total deposit	Ratio	Cash & bank balance	Total deposit	Ratio	Cash & bank balance	Total deposit	Ratio
2005/06	1049.10	10097.69	10.39	559.38	14586.66	3.83	2014.47	24814.011	8.11
2006/07	1522.97	13802.44	11.25	630.29	19347.40	3.26	1717.35	26490.85	6.48
2007/08	2391.42	18186.25	13.14	1399.82	23342.29	5.99	1757.34	30048.41	5.84
2008/09	2667.96	23976.29	11.12	2671.14	31915.04	8.37	1449.14	31842.78	4.55

2009/10	6164.37	33322.94	18.49	3372.51	37348.25	9.03	3048	34681.35	8.79
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Appendix:-18
Calculation of Growth Ratio

Let,

D_n =Variable in the n^{th} year

D_0 =Variable in the initial year

N= no of period study

G=growth rate

Total deposit growth ratio of EBL

$$D_n = DO (1+g)^{n-1}$$

$$33322.37 = 10097.69(1+g)^{5-1}$$

$$(1+g) = (33322.37/10097.69)^{1/4}$$

$$(1+g) = 1.3479$$

$$g = 34.79\%$$

$$D_n = DO (1+g)^{n-1}$$

$$1+g = 1.2649$$

$$g = 0.2649$$

$$g = 26.49\%$$

Total deposit growth ratio of HBL

$$D_n = DO (1+g)^{n-1}$$

$$34681.35 = 24184.011(1+g)^{5-1}$$

$$(1+g) = (37348.25/14586.9)^{1/4}$$

$$1+g = 1.2649$$

$$g = 0.2649$$

$$g = 26.49\%$$

Total loans and advances growth ratio of EBL

$$D_n = DO (1+g)^{n-1}$$

$$23884.67 = 7618.67(1+g)^{5-1}$$

$$(1+g) = (23884.67/7618.67)^{1/4}$$

Total deposit growth ratio of Nabil

$$1+g = 1.3306$$

$$g = 0.3306$$

$$g = 33.06\%$$

Total loans and advances growth ratio of HBL

$$D_n = DO (1+g)^{n-1}$$

$$24793 = 12424.52(1+g)^{5-1}$$

$$(1+g) = (24793/12424.52)^{1/4}$$

$$1+g = 1.1885$$

$$g = 0.1885$$

$$g = 18.85\%$$

Total loans and advances growth ratio of NABIL

$$D_n = DO (1+g)^{n-1}$$

$$27589.93 = 10586.17(1+g)^{5-1}$$

$$(1+g) = (27589.93/10586.17)^{1/4}$$

$$1+g = 1.2705$$

$$g = 0.2705$$

$$g = 27.05\%$$

Total investment growth ratio of EBL

$$D_n = DO (1+g)^{n-1}$$

$$5948.48 = 2128.90(1+g)^{5-1}$$

$$(1+g) = (5948.48/2128.90)^{1/4}$$

$$1+g = 1.2929$$

$$g = 0.2929$$

$$g = 29.29\%$$

Total investment growth ratio of HBL

$$(1+g) = (8710.69/11692)^{1/4}$$

$$1+g = 1.0709$$

$$g=0.0709$$

$$g = 7.09$$

Total investment growth ratio of NABIL

$$D_n = DO (1+g)^{n-1}$$

$$10826.4=4267.23(1+g)^{5-1}$$

$$(1+g) = (10826.4/4267.23)^{1/4}$$

$$1+g = 1.2621$$

$$g=0.2621$$

$$g = 26.21\%$$

Total Net Profit growth ratio of EBL

$$D_n = DO (1+g)^{n-1}$$

$$638.73 = 170.80(1+g)^{5-1}$$

$$(1+g) = (638.73/170.80)^{1/4}$$

$$1+g = 1.3906$$

$$g=0.3906$$

$$g = 39.06\%$$

Total Net Profit growth ratio of HBL

$$D_n = DO (1+g)^{n-1}$$

$$752.63=308.27(1+g)^{5-1}$$

$$(1+g) = (752.63/308.27)^{1/4}$$

$$1+g = 1.250$$

$$g=0.250$$

$$g = 25.0\%$$

Total Net Profit growth ratio of NABIL

$$D_n = DO (1+g)^{n-1}$$

$$1031.05 = 518.64(1+g)^{5-1}$$

$$(1+g) = (1031.05/518.64)^{1/4}$$

$$1+g = 1.1874$$

$$g=29.29$$

$$g = 18.74$$

Appendix:-19

Trend analysis of total deposit of EBL

Fiscal year	Total Deposit(Y)	X = t-2006	X ²	XY	Yc= a+bx
2006	10097.69	-2	4	-20195.38	8552.26
2007	13802.44	-1	1	-13802.44	14214.69
2008	18186.25	0	0	0	19877.12
2009	23976.29	1	1	23976.29	25539.55
2010	33322.94	2	4	66645.88	31202.98
Total	99385.61		X ² =10	56624.35	99385.6

$$a = \frac{\sum y}{n} = \frac{99385.6129}{5} = 19877.12$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{56624.35}{10} = 5662.43$$

Project Trend values of Total deposit for next Five year

Fiscal year	X= t-2006	Yc= a+bx
2011	3	36864.41
2012	4	42526.84
2013	5	48189.27
2014	6	53851.7
2015	7	59514.13

Appendix:-20

Trend analysis of total deposit of HBL

Fiscal year	Total Deposit(Y)	X= t-2006	X ²	XY	Yc= a+bx
2006	24814.011	-2	4	-49628.02	24588.10
2007	26490.85	-1	1	-26490.85	27066.82
2008	30048.41	0	0	0	29575.48
2009	31842.78	1	1	31842.78	32084.14
2010	34681.35	2	4	69362.7	34592.8
Total	147877.4		X ² =10	25086.60	

$$a = \frac{\sum y}{n} = \frac{147877.4}{5} = 29575.48$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{25086.6}{10} = 2508.66$$

Project Trend values of Total deposit for next Five year

Fiscal year	X= t-2006	Yc= a+bx
2011	3	37101.46
2012	4	39610.12
2013	5	42118.78
2014	6	44627.44
2015	7	47136.1

Appendix:-21

Trend analysis of total deposit of NABIL

Fiscal year	Total Deposit(Y)	X= t-2006	X ²	XY	Yc= a+bx
2006	14586.66	-2	4	-29173.32	13682.32
2007	19347.40	-1	1	-19347.40	19498.20
2008	23342.29	0	0	0	25307.92
2009	31915.05	1	1	31915.04	31116.93
2010	37348.25	2	4	74696.5	36925.93
Total	126539.64		X ² =10	58090	

$$a = \frac{\sum y}{n} = \frac{126539.64}{5} = 25307.93 \quad b = \frac{\sum xy}{\sum x^2} = \frac{58090}{10} = 5809$$

Project Trend values of Total deposit for next Five year

Fiscal year	X= t-2006	Yc= a+bx
2011	3	42734.93
2012	4	48543.93
2013	5	54352.92
2014	6	60161.93
2015	7	65970.93

Appendix:-22

Trend analysis of loan and advances of EBL

Fiscal year	loan and advances(Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	7618.67	-2	4	-15237.34	6387.6
2007	9801.31	-1	1	-9801.31	10494.58
2008	13664.31	0	0	0	14601.56
2009	18339.09	1	1	18339.09	18708.54
2010	23884.67	2	4	47769.34	22814.68
Total	73007.82		X ² =10	41069.78	

$$a = \frac{\sum y}{n} = \frac{73007.8}{5} = 14601.56 \quad b = \frac{\sum xy}{\sum x^2} = \frac{41069.78}{10} = 4106.98$$

Project Trend values of loan and advances for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	26922.5
2012	4	31029.48
2013	5	35136.46
2014	6	39243.44
2015	7	43350.42

Appendix:-23

Trend analysis of loan and advances of NABIL

Fiscal year	loan and advances(Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	10586.17	-2	4	-21172.34	9111.88
2007	12922.5	-1	1	-12922.5	13356.82
2008	15545.78	0	0	15545.78	17601.89
2009	21365.05	1	1	21365.05	21846.89
2010	27589.93	2	4	55179.86	26091.90
Total	88009.43		X ² =10	42450.67	

$$a = \frac{\sum y}{n} = \frac{88009.43}{5} = 17601.89 \quad b = \frac{\sum xy}{\sum x^2} = \frac{42450.07}{10} = 4245.007$$

Project Trend values of loan and advances for next Five year

Fiscal year	X= t-2006	Yc= a+bx
2011	3	30336.91
2012	4	34581.92
2013	5	38826.92
2014	6	43077.41
2015	7	47316.94

Appendix:-24

Trend analysis of loan and advances of HBL

Fiscal year	loan and advances(Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	12424.52	-2	4	-24849.04	11752.71
2007	14642.55	-1	1	-14642.55	14756.93
2008	16997.99	0	0	0	17761.14
2009	19947.52	1	1	19947.52	20765.35
2010	24793.1	2	4	49586.2	23769.57
Total	88805.68		X ² =10	30042.13	

$$a = \frac{\sum y}{n} = \frac{88805.68}{5} = 17761.14 \quad b = \frac{\sum xy}{\sum x^2} = \frac{30042.13}{10} = 3004.213$$

Project Trend values of loan and advances for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	26773.56
2012	4	29777.99
2013	5	32782.21
2014	6	35786.42
2015	7	38790.63

Appendix:-25

Trend analysis of Total investment of EBL

Fiscal year	Total investment (Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	2128.9	-2	4	-4257.8	2764.71
2007	4200.52	-1	1	-4200.52	3614.53
2008	4984.31	0	0	0	4464.35
2009	5059.56	1	1	5059.56	5314.17
2010	5948.48	2	4	11896.96	6163.90
Total			X ² =10	8498.2	

$$a = \frac{\sum y}{n} = \frac{22321.77}{5} = 4464.35 \quad b = \frac{\sum xy}{\sum x^2} = \frac{8498.2}{10} = 849.82$$

Project Trend values of total investment for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	7013.81
2012	4	7863.63
2013	5	8711.95
2014	6	9563.27
2015	7	10413.09

Appendix:-26

Trend analysis of Total investment of NABIL

Fiscal year	Total investment (Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	4267.23	-2	4	-8534.46	4655.54
2007	6178.53	-1	1	-6178.53	6343.49
2008	8945.31	0	0	0	8031.44
2009	9939.79	1	1	9939.77	9719.39
2010	10826.4	2	4	21652.8	11407.34
Total	40157.24		X ² =10		

$$a = \frac{\sum y}{n} = \frac{40157.24}{5} = 8031.44 \quad b = \frac{\sum xy}{\sum x^2} = \frac{16879.58}{10} = 1687.95$$

Project Trend values of Total deposit for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	13095.29
2012	4	14783.24
2013	5	16471.19
2014	6	18159.14
2015	7	19847.09

Appendix:-27

Trend analysis of Total investment of HBL

Fiscal year	Total investment (Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	11692.34	-2	4	-23384.68	11993.44
2007	10889.03	-1	1	-10889.03	11642.20
2008	11822.98	0	0	0	11291.04
2009	13340.18	-1	1	13340.18	10939.84
2010	8710.69	-2	2	17421.38	10588.64
Total	56455.22		X ² =10	3512.09	

$$a = \frac{\sum y}{n} = \frac{56455.22}{5} = 11291.04 \quad b = \frac{\sum xy}{\sum x^2} = \frac{3512.09}{10} = 351.20$$

Project Trend values of total investment for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	12344.64
2012	4	12695.04
2013	5	13047.04
2014	6	13398.24
2015	7	13749.44

Appendix:-28

Trend analysis of Net Profit Of EBL

Fiscal year	Net profit (Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	170.8	-2	4	-341.6	129.28
2007	237.38	-1	1	-237.38	244.25
2008	297.99	0	0	0	359.24
2009	451.22	1	1	451.22	474.19
2010	638.73	2	4	1277.46	589.16
Total	1796.12		X ² =10	1149.7	

$$a = \frac{\sum y}{n} = \frac{1796.12}{5} = 359.224 \quad b = \frac{\sum xy}{\sum x^2} = \frac{1149.7}{10} = 114.97$$

Project Trend values of net profit for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	704.13
2012	4	819.10
2013	5	934.07
2014	6	1049.04
2015	7	1164.014

Appendix:-29

Trend analysis of Net Profit Of NABIL

Fiscal year	Net profit (Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	518.64	-2	1	--1037.28	493.90
2007	635.30	-1	0	-635.30	607.49
2008	673.96	0	1	0	721.084
2009	746.47	1	4	746.47	834.67
2010	1031.05	2		2062.1	948.26
Total	3605.42		10		

$$a = \frac{\sum y}{n} = \frac{3605.42}{5} = 721.084$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{1135.99}{10} = 113.59$$

Project Trend values of net profit for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2011	3	1061.85
2012	4	1175.44
2013	5	1289.03
2014	6	1402.62
2015	7	1516.21

Appendix:-30

Trend analysis of Net Profit Of HBL

Fiscal year	Net profit (Y)	X= t-2008	X ²	XY	Yc= a+bx
2006	308.27	-2	4	-616.54	315.79
2007	457.45	-1	1	-457.45	422.5
2008	491.82	0	0	0	529.21
2009	635.86	1	1	635.86	635.92
2010	752.63	2	4	1505.26	742.63
Total	2646.03		X ² =10	1067.13	

$$a = \frac{\sum y}{n} = \frac{2646.03}{5} = 529.21$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{1067.711}{10} = 106.71$$

Project Trend values of net profit for next Five year

Fiscal year	X= t-2008	Yc= a+bx
2010	3	849.34
2011	4	956.05
2012	5	1062.76
2013	6	1169.47
2014	7	1276.18

Appendix:-31

Coefficient of correlation Between Total deposit and net profit of EBL

(Rs in million)

Fiscal year	Total Deposit(X)	Net Profit(Y)	X ²	y ²	XY
2006	10097.69	170.8	101963343.3	29172.64	1724685.452
2007	13802.44	237.38	190507350	56349.2644	3276423.207
2008	18186.25	297.99	330739689.1	88798.0401	5419320.638
2009	23976.29	451.22	574862482.2	203599.4884	10818581.57
2010	33322.94	638.73	110418330	407976.0129	21284361.47
Total	99385.61	17961.12	2308491195	785886.44	42523375.34

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.99669$$

$$\text{Coefficient of Determination } (r^2) = 0.99669 \times 0.99669 = 0.99339$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.0019935$$

$$6(\text{P.E.}) = 0.011961$$

Appendix:-32

Coefficient of correlation Between Total deposit and net profit of NABIL

Rs in million

Fiscal year	Total Deposit(X)	Net Profit(Y)	X ²	y ²	XY
2006	14586.66	518.64	212770650	268987.4496	7565225.342
2007	19347.4	635.3	374321886.8	403606.09	12291403.22
2008	23342.29	673.96	544862502.4	454222.0816	15731769.77

2009	31915.05	746.47	1018570417	557217.4609	23823627.37
2010	37348.25	1031.05	1394891778	1063064.10	38507913.16
Total	126539.64	3605.42	35454116595	2751149.93	97919931.48

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.9264$$

$$\text{Coefficient of Determination } (r^2) = 0.9264 \times 0.9264 = 0.8582$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.04277$$

$$6(\text{P.E.}) = 0.2566$$

Appendix:33

Coefficient of correlation Between Total deposit and net profit of HBL

(Rs in million)

Fiscal year	Total Deposit(X)	Net Profit(Y)	X ²	y ²	XY
2006	24184.1	308.27	584870692.8	95030.39	7455232.51
2007	26490.85	457.45	701741822	209260.50	12118239.33
2008	30048.41	491.82	902906943.5	241886.91	14778409.33
2009	31842.78	635.86	10139626.38	404317.94	20239270.97
2010	34681.35	752.86	12027960.38	566451.92	26102224.45
Total	147877.4	2646.03	4406278134	1516947.63	80693376.27

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.9696$$

$$\text{Coefficient of Determination } (r^2) = 0.9696 \times 0.9696 = 0.94012$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.0181$$

$$6(\text{P.E.}) = 0.1084$$

Appendix:-34

Coefficient of correlation Between Total deposit and Interest earned of EBL
(Rs in million)

Fiscal year	Total Deposit(X)	Interest earned (Y)	X ²	y ²	XY
2006	10097.69	719.3	101963343.3	517392.49	7263268.417
2007	13802.44	903.11	190507350	815607.6721	12465121.59
2008	18186.25	1144.41	330739689.1	1309674.248	20812526.36
2009	23976.29	1548.66	574862482.2	2398347.796	37131121.27
2010	33322.94	2186.81	1110418330	4782137.98	72870938.42
Total	99385.61	6501.29	2308489276	9823160.8	150542976.1

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}}$$

$$=$$

$$= 0.9981$$

$$\text{Coefficient of Determination } (r^2) = 0.9981 \times 0.9981 = 0.9962$$

$$\text{Probable (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.001146$$

$$6(\text{P.E.}) = 0.006877$$

Appendix:-35

Coefficient of correlation Between Total deposit and Interest earned of NABIL
(Rs in million)

Fiscal year	Total Deposit(X)	Interest earned (Y)	X ²	y ²	XY
2006	14586.66	1068.75	212770650	1142226.563	15589492.88
2007	19347.4	1310	374321886.8	1716100	25345094
2008	23342.29	1587.76	544862502.4	2520981.818	37061954.37
2009	31915.05	1978.7	1018570417	3915253.69	63150309.44
2010	37348.25	2798.49	1394891778	7831546.28	104518704.1
Total	126539.64	8743.7	3541557115	17126108.34	245665535

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9792$$

$$\text{Coefficient of Determination } (r^2) = 0.9792 \times 0.9792 = 0.9549$$

$$\text{Probable (P.E.)} = 0.6745 \times 1 - r^2 / \sqrt{n} = 0.01360$$

$$6(\text{P.E.}) = 0.08162$$

Appendix:-36

Coefficient of correlation Between Total deposit and Interest earned of HBL

Rs in million)

Fiscal year	Total Deposit(X)	Interest earned (Y)	X ²	y ²	XY
2006	24814.01	1446.68	615735092	2092883.022	35897931.99
2007	26490.85	1626.47	701765133.7	2645404.66	43086572.8
2008	30048.41	1775.58	902906943.5	3152684.33	53353355.83
2009	31842.78	1963.64	1013962638	3855882.06	62527756.52
2010	34681	2342.19	1202771761	5485853.99	81229491.39
Total	147877.12	9154.56	4437141568	17232708.12	276095108.5

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.97590$$

$$\text{Coefficient of Determination } (r^2) = 0.97590 \times 0.97590 = 0.9524$$

$$\text{Probable (P.E.)} = 0.6745 \times 1 - r^2 / \sqrt{n} = 0.0144$$

$$6(\text{P.E.}) = 0.0862$$

Appendix:-37

Coefficient of correlation Between Loan and Advances and Interest Paid of EBL

Rs in million

Fiscal year	Loan and Advances (X)	Interest Paid (Y)	X ²	y ²	XY
2006	7618.67	299.56	58044132.57	89736.1936	2282248.785
2007	9801.3	401.4	96065481.69	161121.96	3934241.82
2008	13664.3	517.17	186713367.8	267464.8089	7066771.203
2009	18339.1	632.61	336322222	400195.4121	11601491.72
2010	23884.64	1012.87	570476027.9	1025905.64	24192035.32
Total	73007.79	2863.61	1239506694	1944424.007	48917602.38

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9777$$

$$\text{Coefficient of Determination } (r^2) = 0.9777 \times 0.9777 = 0.9559$$

$$\text{Probable (P.E.)} = 0.6745 \times 1 - r^2 / \sqrt{n} = 0.01330$$

$$6(\text{P.E.}) = 0.0798$$

Appendix:-38

Coefficient of correlation Between Loan and Advances and Interest Paid of NABIL

Rs in

million

Fiscal year	Loan and Advances (X)	Interest Paid (Y)	X ²	y ²	XY
2006	10586.17	243.54	112066995.3	59311.7316	2578155.842
2007	12922.59	357.2	166993332.3	127591.84	4615949.148
2008	15545.78	555.71	241671275.8	308813.6041	8638945.404
2009	21365.05	758.44	456465361.5	575231.2336	16204108.52
2010	27589.93	1153.28	761204237.4	1330054.76	31818914.47
Total	88008.65	3068.17	1738398876	2401003.158	63856041.23

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9946$$

$$\text{Coefficient of Determination } (r^2) = 0.9946 \times 0.9946 = 0.9892$$

$$\text{Probable (P.E.)} = 0.6745 \times 1 - r^2 / \sqrt{n} = 0.003249$$

$$6(\text{P.E.}) = 0.01949$$

Appendix:-39

Coefficient of correlation Between Loan and Advances and Interest Paid of HBL

Rs in million

Fiscal year	Loan and Advances (X)	Interest Paid (Y)	X ²	y ²	XY
2006	12424.52	561.96	154368697.2	315799.04	6982083.26
2007	14642.55	648.84	214404270.5	420993.34	9500315.28
2008	16997.99	767.41	288931664	588918.11	13044427.51
2009	19947.52	823.74	397903554.2	678547.58	16431570.12
2010	24793.1	934.77	614697807.6	873794.95	23175846.09
Total	88805.68	3736.73	1670305994	2878053.023	69134242.26

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.98112$$

Coefficient of Determination (r^2) = $0.98112 \times 0.98112 = 0.9626$
 Probable (P.E.) = $0.6745 \times 1 - r^2 / \sqrt{n} = 0.011293$
 $6(P.E.) = 0.06776$

Appendix:-40

Coefficient of correlation Between Total Working Fund and Net Profit of EBL

Rs in million

Fiscal year	working fund (X)	Net Profit (Y)	X ²	y ²	XY
2006	11972.12	170.8	143331657.3	29172.64	2044838.096
2007	15959.28	237.38	254698618.1	56349.2644	3788413.886
2008	21432.37	297.99	459346483.8	88798.0401	6386631.936
2009	27149.34	451.22	737086662.4	203599.4884	12250325.19
2010	36916.85	638.73	1363075324	407976.02	23579899.6
Total	113249.88	1796.12	2953257534	785895.44	48019339.66

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x \cdot \phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9929$$

Coefficient of Determination (r^2) = $0.9929 \times 0.9929 = 0.9858$

Probable (P.E.) = $0.6745 \times 1 - r^2 / \sqrt{n} = 0.004268$

$6(P.E.) = 0.0256$

Appendix:-41

Coefficient of correlation Between Total Working Fund and Net Profit of NABIL

Rs in million

Fiscal year	working fund (X)	Net Profit (Y)	X ²	y ²	XY
2006	17186.33	518.64	295369938.9	268987.4496	8913518.191
2007	22329.97	635.3	498627560.2	403606.09	14186229.94
2008	27253.39	673.96	742747266.5	454222.0816	18367694.72
2009	37132.76	746.47	1378841865	557217.4609	27718491.36
2010	36916.85	638.73	1363075324	407976.01	23579899.6
Total	113249.88	1796.12	2953257534	785895.44	48019339.66

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9929$$

$$\text{Coefficient of Determination } (r^2) = 0.9929 \times 0.9929 = 0.9858$$

$$\text{Probable (P.E.)} = 0.6745 \times 1 - \frac{r^2}{\sqrt{n}} = 0.004268$$

$$6(\text{P.E.}) = 0.0256$$

Appendix:-42

Coefficient of correlation Between Total Working Fund and Net Profit of HBL

Rs in million

Fiscal year	working fund (X)	Net Profit (Y)	X ²	y ²	XY
2006	27418.16	308.27	751755497.8	95030.39	8452196.18
2007	29460.38	457.45	867913989.7	209260.50	13476650.83
2008	33519.14	491.82	1123532746	241886.91	16485383.43
2009	36175.53	635.86	1308668971	404317.94	23002572.51
2010	39320.32	752.63	1546087565	566451.92	29593652.4
Total	165893.53	2646.03	5597958769	1516947.66	91010455.35

Coefficient of Correlation(r):

$$R = \frac{n\phi xy - \phi x.\phi y}{\sqrt{n\phi x^2 - (\phi x)^2} \times \sqrt{n\phi y^2 - (\phi y)^2}} = 0.9728$$

$$\text{Coefficient of Determination } (r^2) = 0.9728 \times 0.9728 = 0.94649$$

$$\text{Probable (P.E.)} = 0.6745 \times 1 - \frac{r^2}{\sqrt{n}} = 0.016141$$

$$6(\text{P.E.}) = 0.096846$$

Appendix:43

Regression Equation Between Net Profit and Total Working Fund of EBL

Rs in million

Fiscal year	working fund (X)	Net Profit (Y)	X ²	y ²	XY
2006	11792.12	170.8	139054094.1	29172.64	2014094.096
2007	15959.28	237.38	254698618.1	56349.2644	3788413.886
2008	21432.37	297.99	459346483.8	88798.0401	6386631.936
2009	27149.34	451.22	737086662.4	203599.4884	12250325.19
2010	36916.85	638.73	1363075324	407976.22	23579899.6
Total	113249.88	1796.12	2953257534	785895.44	48019339.66

X =Independent Variable

Y = Dependent Variable

Let, the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{eq.(I)}$$

To find the value of a and b we have to normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{eq.(II)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{eq.(III)}$$

Substituting the value of n , $\sum x$, $\sum y$, $\sum x^2$ and $\sum xy$ in equation (II) and (III) we get,

$$1796.12 = 5a + 113249.88b \dots\dots\dots\text{eq.(IV)}$$

$$48019339.66 = 113249.88a + 2953257534b \dots\dots\dots\text{eq.(V)}$$

Now, multiplying eq.(IV) by 113249.88 and eq.(V) by 5 then substituting (V) we get

$$203410374.5 = 566249.49a + 12825.535328*1000000b$$

$$\underline{-2400966983 = 566249.49a + 14766.28767*1000000b}$$

$$36.6863238 = -1949.75235 b$$

$$b = 0.01890$$

Putting the value of b in equation (IV) then we get,

$$1796.1 = 5a + 0.01890 \times 113249.88$$

$$a = 68.8605$$

$$Y = 68.8605 + 0.01890 x$$

Appendix:-44

Regression Equation Between Net Profit and Total Working Fund of NABIL

Rs in million

Fiscal year	Working Fund (X)	Net Profit (Y)	X ²	y ²	XY
2006	17186.33	518.64	295369938.9	268987.4496	8913518.191
2007	22329.97	635.3	498627560.2	403606.09	14186229.94
2008	27253.39	673.96	742747266.5	454222.0816	18367694.72
2009	37132.76	746.47	1378841865	557217.4609	27718491.36
2010	43867.39	1031.65	1924347905	1063064.10	45229472.46
Total	147769.87	3605.42	4839935875	2747097.19	114415425.7

X =Independent Variable

Y = Dependent Variable

Let, the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{eq.(I)}$$

To find the value of a and b we have to normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{eq.(II)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{eq.(III)}$$

Substituting the value of n , $\sum x$, $\sum y$, $\sum x^2$ and $\sum xy$ in equation (II) and (III) we get,

$$3605.42=5a +1147769.87b \dots\dots\dots\text{eq.(IV)}$$

$$114415425.7=147769.87a + 4839935875b \dots\dots\dots\text{eq.(V)}$$

Now, multiplying eq.(IV) by 147769.87 and eq.(V) by 5 then substituting (V) we get

$$b =0.01628$$

Putting the value of b in equation (IV) then we get,

$$3605.42= 5a +0.01628 \times 1147769.87$$

$$a = 239.9453$$

$$Y = 239.9453+ 0.01628 x$$

Appendix:-45

Regression Equation between Net Profit and Total Working Fund of HBL

Rs in million

Fiscal year	Working Fund (X)	Net Profit (Y)	X ²	y ²	XY
2006	27418.16	308.27	751755497.8	95030.3929	8452196.18
2007	29460.38	457.45	867913989.7	209260.50	13476650.83
2008	33519.14	491.82	1123532746	241886.91	16485383.43
2009	36175.53	635.86	1308668971	404317.94	23002572.51
2010	39320.32	752.63	1546087565	566451.92	29593652.44
Total	165893.53	2646.03	5597958769	1516947.66	91010455.35

X =Independent Variable

Y = Dependent Variable

Let, the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{eq.(I)}$$

To find the value of a and b we have to normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{eq.(II)}$$

$$xy = a x + b x^2 \dots \dots \dots \text{eq. (III)}$$

Substituting the value of n , x, y, x² and xy in equation (II) and (III) we get,

$$2646.03 = 5a + 165893.53b \dots \dots \dots \text{eq. (IV)}$$

$$91810455.35 = 165893.53a + 5597958769 b \dots \dots \dots \text{eq. (V)}$$

Now, multiplying eq.(IV) by 165893.53 and eq.(V) by 5 then substituting (V) we get

$$b = 0.034304$$

Putting the value of b in equation (IV) then we get,

$$2646.03 = 5a + 0.034304 \times 165893.53 \quad a = 608.95$$

$$Y = 608.95 + 0.034304x$$

Appendix:-46

Regression Equation between Total deposit and Net profit of EBL

Rs in million

Fiscal year	Total Deposit (X)	Net Profit (Y)	X ²	y ²	XY
2006	10097.69	170.8	101963343.3	29172.64	1724685.452
2007	13802.44	237.88	190507350	56586.8944	3283324.427
2008	18186.25	297.99	330739689.1	88798.0401	5419320.638
2009	23976.29	451.22	574862482.2	203599.4884	10818581.57
2010	23976.29	638.73	1110418330	407976.1019	21284361.47
Total	99385.61	1796.12	2308491195	785886.44	42523375.34

X =Independent Variable

Y = Dependent Variable

Let, the regression equation of Y on X is

$$Y = a + bx \dots \dots \dots \text{eq. (I)}$$

To find the value of a and b we have to normal equation

$$\sum y = na + b \sum x \dots \dots \dots \text{eq. (II)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots \dots \dots \text{eq. (III)}$$

Substituting the value of n , x, y, x² and xy in equation (II) and (III) we get,

$$1796.12 = 5a + 99385.61 b \dots \dots \dots \text{eq. (IV)}$$

$$42523375.34 = 99385.61 a + 2308491195b \dots \dots \dots \text{eq. (V)}$$

Now, multiplying eq.(IV) by 99385.61 and eq.(V) by 5 then substituting (V) we get

$$b = 0.0204861$$

Putting the value of b in equation (IV) then we get,

$$1796.12 = 5a + 99385.61 \times 0.0204861 \quad b \quad a = 47.9787$$

$$Y = 47.9787 + 0.0204861X$$

Appendix:-47

Regression Equation between Total deposit and Net profit of NABIL

Rs in million

Fiscal year	Total Deposit (X)	Net Profit (Y)	X ²	y ²	XY
2006	14586.66	518.64	212770650	268987.4496	7565225.342
2007	19347.4	635.3	374321886.8	403606.09	12291403.22
2008	23342.29	673.96	544862502.4	454222.0816	15731769.77
2009	31915.05	746.47	1018570417	557217.4609	23823627.37
2010	37348.25	746.47	1018569778	1063064.10	38507913.16
Total	126539.64	3605.42	3545416559	2751149.93	97919931.48

X =Independent Variable

Y = Dependent Variable

Let, the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{eq.(I)}$$

To find the value of a and b we have to normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{eq.(II)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{eq.(III)}$$

Substituting the value of n , $\sum x$, $\sum y$, $\sum x^2$ and $\sum xy$ in equation (II) and (III) we get,

$$3605.42 = 5a + 126539.64 b \dots\dots\dots\text{eq.(IV)}$$

$$97919931.48 = 126539.64 a + 3545416595b \dots\dots\dots\text{eq.(V)}$$

Now, multiplying eq.(IV) by 126539.64 and eq.(V) by 5 then substituting (V) we get

$$b = 0.019461$$

Putting the value of b in equation (IV) then we get,

$$3605.42 = 5a + 126539.64 \times 0.019461 b \quad a = 228.56$$

$$Y = 228.56 + 0.19461X$$

Appendix:-48

Regression Equation between Total deposit and Net profit of EBL

Rs in million

Fiscal year	Total Deposit (X)	Net Profit (Y)	X^2	y^2	XY
2006	24184.1	308.27	584870692.8	95030.39	7455232.51
2007	26490.85	457.45	701741822	209260.50	12118239.33
2008	30048.41	491.82	902906943.5	241886.91	14778409.01
2009	31842.78	635.86	1013962638	404317.94	20239270.97
2010	34681.35	752.63	1202796038	566451.92	26102224.45
Total	147877.4	2646.03	4406278134	1516947.65	80693376.27

X =Independent Variable

Y = Dependent Variable

Let, the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{eq.(I)}$$

To find the value of a and b we have to normal equation

$$y = na + b \sum x \dots\dots\dots\text{eq.(II)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{eq.(III)}$$

Substituting the value of n , $\sum x$, $\sum y$, $\sum x^2$ and $\sum xy$ in equation (II) and (III) we get,

$$2646.03 = 5a + 147877.4 b \dots\dots\dots\text{eq.(IV)}$$

$$80693376.27 = 147877.4a + 4406278134b \dots\dots\dots\text{eq.(V)}$$

Now, multiplying eq.(IV) by 147877.4 and eq.(V) by 5 then substituting (V) we get

$$b = 0.074413$$

Putting the value of b in equation (IV) then we get,

$$2646.03 = 5a + 147877.4 \times 0.074413 b \quad a = 1671.59$$

$$Y = 1671.59 + 0.074413x$$