CHAPTER - I
INTRODUCTION

1.1 Background of the Study

Nepalese economy is different in its character from the regional economies. Poverty, less developed geographical situation, technological backwardness, landlockedness and dominated by two large economies etc are the main features of Nepalese economy. Most of the population of the country is in the rural areas, where there is no access of banking facilities. Due to lack of awareness and guidance to the poor, the poor are still in severe condition at many places. From the beginning of the 1970s same programs have been introduced focusing on rural and poverty stricken areas people. But these programs did not achieve significant results in the area of the poverty reduction. The population below the poverty line is still 25.4% by the end of the Three Year Interim Plan *(www.npc.org.np).*

Nepal has short history of banking sector as compared to other developed country in the world. Bank is the lifeline of a nation and its people. In regard of commercial banks they are internal parts of the economy in all countries. Outside the commercial banking realm, there are several financial institution that affects financial operation in a country. The place of commercial banks in financial system is more significant to play increasingly dynamic and vital role in the economy of the least developed likes ours, which provides economic and financial intermediation in the economy *(NRB, 2009).*

Speaking of priority to the establishment of Nepal Bank limited, there was no organized financial institution in Nepal. During the Primeministership of Ranodip Singh around 1877 AD a number of economic and financial reforms were introduced. The establishment of the Teejarath Adda was the outcome of that reform. Adda may be regarded as the father of modern banking institution and for quite a long time intended a good service to government servant as well as to the general public. However, the installation of Kausi Tosha Khana as a banking agency during the regime of king Prithivi Nayaran Shah could also claim to be regarded as the first step towards initiating banking development in Nepal. The inception of Nepal Bank Limited in 1937 was a landmark in the field of banking and financial sector in Nepal. It was established under special banking act 1936 having elementary function of commercial bank a semi-government organization. The Central Bank named

as Nepal Rastra Bank which was established in 26th April 1955 with the objective of supervising, protection and direction. The function of commercial banking activities by the government named as Rastriya Banijya Bank was established in 1966. Later on large number of commercial banks have been come into operation till date *(Chaudhary, 2066).*

Government involvement in business, trade and transit was indispensable and the end of the 18th century through few sole trading were also in existence during that pursued Adam Smith through his popular Wealth of National advocated minimum government intervention in business in 1776 AD through his first treatise on economic development. He suggested government to develop adequate infrastructure to promote the business rather actively participate in it. Major economic in the world followed Smith fill they approached great depression in 1929 AD. The year 1929-30 proved smith theory's of invisible hand's to be unsuccessful and left the growing economic of the world at crossed. To overcome the sudden and unexpected disaster in the economy, Keyn's theory of multiplier came which redefined the role of government and suggested it to invest a lot in business to mitigate the problems of unemployment and scarcity of affective demand in the market. Thus adoption of Keynesian theory once again the world economy moved towards mixed economy. The USSR started to use the concept of planned economic development from the same time *(Chaudhary, 2066).*

During the 1970's, the economic development come to be redefined in terms of reducing the rate of poverty and unemployment. In order to boost up the economy of any country both public and private firm most play vital role. Concept of public enterprise was emerged in the USA during the regime of Roosevelt through his view deal although other countries is also followed this concept that public enterprise couldn't run smoothly while arriving in 70's decade *(Chaudhary, 2066).*

Their productivity decline and ultimately they resulted in heavy loss. The oil price hike of 1973 forced even developed countries to flash back there economic structure. This wave of privatization slowly speeded up all over the world. Ending year 1980's and beginning of 90's are characterized by the political change. Germany unified USSR split up and changed its socialist pattern of economy. Centralized economy of china slightly directed towards liberalization in 1990's led to global economy *(Chaudhary, 2066).*

Developed countries have opened their market not only scare raw material from developing countries but also finished good with economic quality. Economic development in Nepal is really

started only after Rana Regime. In the late period of Rana Regime some positive attempts were made .as a result dog perished for in existent in 1935AD, Biratnagar Jute Mill in 1936AD and Raghupati Jute Mill in 1946AD. Before the break of Second World War a twenty-year plan was announced and national planning committee was set up in 1949AD *(Chaudhary, 2066).*

Thus the present study focused on the comparative financial performance analysis of EBL, NABIL and HBL banks. For this purpose an evaluation of position of the Bank with respect to liquidity, leverage, capital adequacy, turnover and profitability and the relationship between various variable are made. This study assumes the hypothesis that the performance of sampled banks does not differ significantly *(MBL, 2066/67).*

1.1.1 Introduction 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 histor Aly 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, Banglore, India, Internet banking system and Telebanking system

) Himalayan bank Limited

HBL a joint venture with Habib Limited, pakistan strated its business from 18th january 1993.It was estabilished with the authorised capital of 240million divided into 1.2 million in shares of 100 each ,out of which 60 million was paid from retained earning of the years 1994/1995 .share a subscription of this company comprise of 51% by promoters shareholders ,20% by Habib Bank Ltd ,pakistan,14% by finincial insitution (Employment provident fund)&15%by Nepalse public shareholders .HBL is the first commericial bank of nepal with maxmimum share holders .HBL is the First First commerical bank of Nepal with maxmimum share holding by the Nepalse private sectors .Its one of the joint venture banks among nine joint venture, the july 2004 edition of the book published in England Named 'the Bankers Almans " has the declared HBL as Nepals No.1 Bank and it has also been awarded "National Excellence Award' .Besides commercial activities ,book also offers industrial & Merchant banking.

1.2 Statement of the Problem

The number of joint venture banks are being increased in response to the economic liberalization policies of the government besides joint venture commercial banks are also being registered by the Nepalese promoters.

Other most of the business organization along with banks are facing different problems due to the lack of political stability and unrest. Bank has been facing the considerable pressure to lower the lending rates, which affects the profitability adversely. The problem of the study refers the study of

strength and weakness of the concerned banks. Although the study is not compressive as expected, attempts are made to sort out the answer for the following question.

- 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?

1.3 Objectives of the Study

The basic objective of the study is to analyze the comparative financial performance analysis of concerned banks (EBL, NABIL and HBL) for the past five years and also find out the causes of the high and low performance.

- 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.

1.4 Significance of the Study

The study evaluates the comparative financial performance between Everest Bank Limited, Nabil Bank Limited and Himalayan Bank Limited. The study highlights financial performance by using ratio analysis, which helps the concerned companies to formulate strategies to face the increasing competition and to achieve the targeted objectives.

Similar the aim of the study is to identify the financial problems. It provides a useful feedback, remedial actions, and good financial planning and takes appropriate decision to the policy-makers to the selected bank, government and also the other concerned field.

Likewise the research will provide required information to the persons and parties such as general readers, decision makers, brokers, traders, stockholder financial agencies, businessman and general public and also useful for teacher and students of the particular subjects and the other those having interested on financial management.

1.5 Limitations of the Study

The study confines only financial performance 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 financial ratios and its application in the NABIL, EBL and HBL.
2. Only financial performance aspect of Everest bank, Nabil Bank and Himalayan Bank has been analyzed.
3. This study has covered only five years data from FY 2005/06 to 2009/10.
4. The study is mostly based on secondary sources of data.

1.6 Organization of the Study

The study is divided into the following five chapters.

Chapter I: Introduction: 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.

Chapter II: Review of literature: 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.

Chapter III: Research methodology: 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.

Chapter IV: Data presentation and analysis: 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.

Chapter V: Summary, conclusion and recommendations: 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.

At the end of the chapters bibliography and appendices have been incorporated.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature comprises upon the existing literature and research related to the present study with a view to find out what had already been studied. This chapter has been divided into two parts:

a. Conceptual Framework

b. Review of Related Studies

2.1 Conceptual Framework

The modern financial evaluation has greatly affected the role and importance of financial performance. Nowadays, finance is best characterized as ever changing with new ideas and techniques. Only efficient manager of the company can achieve the set up goals. If a bank does not maintain adequate equity capital, it makes the bank more risky. If a bank has inadequate equity capital, it must be used more debt that has high fixed cost. So any firm must have adequate equity capital in their capital structure.

The main objectives of the banks are to collect deposits as much as possible from the customers and to mobilize into the most profitable sector. If a bank fails to utilize it's collected resources than it can not generate revenue. Resource mobilization management of bank includes resource collection, investment portfolio, loans and advances, working capital, fixed assets management etc. It measures the extent to which bank is successful to utilize its resources. To measure the bank performance in many aspects, we should analyze its financial indicator with the help of financial statements.

2.1.1 Financial Performance

Analysis of financial performance is a crucial part of financial decision making process of business enterprise. Poor financial management affects adversely on liquidity, turnover and profitability. It is required to measure the financial position of the enterprise periodically in order to ensure smooth function of an enterprise. Financial analysis assists in identifying the major strengths and weakness of a business enterprise. It indicates whether a firm has enough funds to meet the obligation, a reasonable accounts receivable collection period, an efficient inventory management policy,

sufficient plant property and equipment and adequate capital structure, all of which are necessary if a firm is to achieve the goal of maximizing shareholder's wealth. Financial analysis can also be used to assess a firm's viability as an ongoing enterprise and to determine whether a satisfactory return on investment is being earned for the risks taken.

“A subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm’s overall financial health over given period of time and can be used as a general to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial performance analysis focus on financial statements and the significant relationship that exist among the various contained in this regard. “Analyzing financial performance is a process of evaluating financial statements to obtain a better understanding of a firm’s positions and performance” (*Pandey; 1992: 30).*

“Financial performance means measuring the result of a firm’s policies and operations in monetary terms. These results are reflected in the firm’s return on investment, return on assets value added, etc. there are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operation operating income or cash flow from operation can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper in to financial statement and seek out margin growth rates or any declining debt” (*Pandey; 1992: 31).*

Below are seven ways to measure the financial performance of a business: *(<http//www.businessdictionery.com/Financial performance>)*

- © **Profit**

The creation or consumption of wealth over a certain period of time is profit /loss. Other words for profit are earning, net income, and the bottom line. A full measurement of profit must include owner’s compensation. More profit is good.

- © **Cash flow**

The difference between the amounts of cash you end up with at the end of a certain period of time versus how much you started with. More positive cash flow is good.

- © **Balance sheet strength**

Generally speaking, company's assets relative to its liabilities at a specific point in time indicate the balance sheet strength. More assets (what the company owns) and fewer liabilities (what a company owes) result is stronger balance sheet. A stronger balance sheet is good.

© **Risk**

Business is risky, we might not get paid by a customer, and we might default on a debt. Our company might get sued, etc. risk is sometimes defined as probability time's consequence. The likely hood of something multiplied by the damage it would case. To earn the same dollar of profit with less risk is good or to earn more profit with the same amount of risk is good. Hence, there is a risk /reward relationship.

© **Owner's Time invested**

How many hours per day, week month, and a year do you put in to business? To earn the same dollar of profit while investing less of your time is good.

© **Business owner's Net Worth**

Financially, the purpose of a business is to create wealth for its owners. Does the owner have substantial investments in retirement accounts, real estate, and other holdings? Has the owner's net worth increased a result of money she /he has taken out of the business? Look to the owner's personal balance sheet for a full understanding of a small business financial performance.

© **Valuation**

What is the fair market value of your business? Is it rising or falling? In addition to providing current income, business creates wealth for their owners by having a resale value when it comes time for you to execute your exit strategy, a higher business valuation is better. This last way to measure financial health is outside the company realm altogether.

The steps of analysis are as follows

1. Selection of relevant to the decision.
2. Arrangement of the selected information to highlight the significant relationship of the financial yardsticks.
3. Interpretation and drawing of inferences and conclusion.

Ratio analysis is the systematic way of financial indicator, which can achieve the information of the firm's strength and weakness as its historical performance, and current financial condition can be

determined. After calculation various ratios, we need to compare with the certain standard and draw out the conclusion of the result

"It is the process of determining the significant operating and financial statement. The goal of such analysis is to determine the efficient and performance of the firm's management as reflected in the financial records and reports" *(Hampton; 1998: 98).*

"Financial analysis is the process of determining financial strength and weakness of a company by establishing strategic relationship between the component of the balance sheet and profit and loss statement and other operative data" (*Pandey; 1999: 96*).

2.1.2 Financial Statement Analysis

Financial statement published by the listed company in the stock exchange are collected and analyzed by Nepal Stock Exchange for the calculation of the financial performance of the concerned company.

Every business organization is established with the objective of earning the profit. Bank is also established with the same motives. Profit is necessary for the long term existence of the business. Every investor wants to invest their money in profitable area. Financial statement is the indicator of business ratio in terms of its strength and weaknesses and profitability. Therefore, the financial ratio analysis reflects the financial position of a firm; financial statement analysis is helpful to the decision maker for finding out favorable or unfavorable situation of a business concern.

"The main function of financial ratio analysis is the pointing out the strength and weaknesses of a business undertaking by regrouping and analysis the figures contains in financial statement by making composition of various components and by examining their content. This can be used by financial managers as the basis to plan future financial requirements by means of forecasting budgeting procedures" *(Weston and Copeland; 1992: 92).*

"Financial statement analysis is largely a study of relationship among the various financial factors in a business as disclosed by a single set of statement and study of trends of these factors as shown in a series of statements" *(Weston and Copeland; 1992: 95).*

Financial Analysis identifies the financial strength and weakness of the firm with the help of basic financial statement. For this purpose a ratio helps the analysis to make qualify about the firm's financial performances.

“The financial statement provides a summarized view of the financial operation of the firm. Therefore, much can be learnt about a firm and careful examination of its financial statement as invaluable documents. The analysis of financial statement is thus important aid to financial analysis. He also mentioned that the ratio analysis is one of the major tools of financial statement analysis" *(Pandey; 1992:109).*

"Financial Analysis is the purpose of identifying the financial strength and weakness of the firm by properly establishing relationship between the balance sheet and profit and loss accounts” *(Pandey; 1995:103).*

"Ratio Analysis is the systematic use of ratio to interest the financial performance so that the strength and weakness of a firm as well as its historical performance and current financial condition can be obtained" *(Jain and Narang; 1993: 123).*

"Ratio may also be judge in comparisons with those of similar firms in the same line of business and when appropriate with an industry average. from Empirical testing in the recent years, it appears that financial ratios can be used successfully to predict certain events, bankruptcy in particular. With this testing, financial ratio analysis has become more scientific and objectively than ever before" *(Van Horne; 1997: 712).*

Financial Statement analysis and technique used by various group like creditors, shareholders, investors, management, government and so on. Financial statements reflect a firm overall performance as well as its future growth and solvency, analysis financial statements are crucial.

Financial analysis is a process of evaluating the relationship between components parts of financial statements to obtain a better understanding of a business concerns financial health. It can be undertake by different parties, but the nature of analysis will differ depending on the purpose of users. Financial statement analysis doesn't provide extract answer, but it informs about future expectation.

“Financial statement analysis involves a comparison of a firm’s ratio with that of other firms in the same line of business, which offers is identified by the firm’s industry classification. Generally, speaking the analysis is used to determine the firm’s financial position in order to identify its current strength and weakness and to suggest actions that might enable the firm to take advantage of its strength and correct its weakness” *(Weston and Copeland; 1996: 99).*

“Financial ratio analysis is the process of identifying the financial strengths and weaknesses of the firm by property establishing relationship between the items of the balance sheet and the profit and loss account. Management of the firm can undertake it or by parties outside the firm” *(Pandey; 1997: 82).*

Financial ratio analysis focused on the key figure contained in the financial statement and significant relationship between them. Management of the firm is generally interested in every aspect of the financial ratio analysis, which is responsible for the overall efficient and effective utilization of the available resources and financial position of the firm.

By analyzing the financial statement, every firm can determine their financial soundness in terms of profitability, interest payment ability, debt maturity dividend policy, capital structure and so on.

“Financial ratio analysis is used primarily to gain insight into operating financial problems confirming the firms, with respect to this problem, we must be careful to distinguish between the causes of problem and symptom of it” *(Hampton; 1998: 52).*

“It is the process of determining the significant of operating and financial statement. The goal of such analysis is to determining the efficiency and ratio of the firm’s management. As reflected in the financial records and reports” *(Hampton; 1998: 54).*

“Financial ratio analysis is to analyze the achieved statement to see, if the results meet the objectives of the firm, to identify problem. If any, in the past or present and or likely to be in the future and to provide recommendation to solve the problem” *(Vanhorn; 2000: 72).*

“Financial ratio analysis is process of identifying the financial strength and weakness of the firm by establishing relationship between the items of the balance sheet, which represents analysis snapshot of the firm’s financial position analysis at analysis moment in the time and text, income statement, that depots analysis summary of the firm’s profitability overtime” *(Vanhorn; 2000: 74).*

“Thus, the analysis of financial statement is an important aid to financial ratio analysis. It is helpful in assessing the financial position and profitability of concerned business organization” *(Pandey; 1979: 78).*

“For the financial analysis of any firm, the vertical and horizontal analysis would be done. The vertical analysis consists of financial balance sheet. Profit and loss account of certain period of time only which is known as static analysis. And the horizontal analysis consist of a series of statement relating to the number of years are reviewed and analyzed. It is also known as dynamic analysis that measure the changes of the position trend of business over the number of years” *(Thapa; 2003: 37)*. Here, horizontal study has been done for the purpose of finding out the key financial indicators of the EBL and HBL over the period of fiscal year 2003/04 to 2007/08.

To find and evaluate the financial ratio of the firm, ratio analysis is taken as an effective tool. Ratio analysis is a way of establishing the relationship between items which are expressed as percentage, fraction or proportion of numbers. Ratio analysis enables us to summarize the large number of quantities date and analysis it in a simple way. “Financial ratio helps us to find out the symptoms of the operational and financial problem of a corporation which can be ascertained by examining the behavior of these ratios” *(Vanhorn; 2000: 78)*.

“Ratio analysis is the systematic use of financial information of the firm’s strength and weakness as its historical ratio and current financial condition can be determined” *(Weston and Brigham; 1987: 102).*

Ratio analysis is a powerful tool of financial ratio analysis, which helps in identifying strength and weakness of business concerns. It is an important way to present the meaningful relationship between components of financial statement. So, ratio analysis is a major tool which can be used to interpret and evaluate the financial statement.

It is thus an attempt to direct the financial statements into their components on the basis of purpose in hand and establish relationship as between these components and totals of these items on the other. Among with this a study of various important factors over the past several years is also undertaken to have clear understanding of changing profitability and financial condition of the business organization.

2.1.3 Balance Sheet

Balance sheet is the most significant financial statement. It indicates the financial condition or the state of affairs of a business at a particular moment of time. Balance sheet is the base for the analysis of financial performance of any company. Balance sheet contains information about resources and obligations of a firm entity and about its owners' equity. Balance sheet provides a snapshot of the financial position of the firm at the closed of fiscal year.

As we know, Balance sheet is very important tools for the analysis of financial performance. The functions severed by Balance sheet can be pointed out as follows:

- It gives concise summary of the firm's resource obligations.
- It is a measure of the firm's liquidity.
- It is a measure of the firm's solvency.

2.1.4 Profit and Loss Account

Balance sheet plays very significant role for the banker and other creditors because it indicates the firm's financial Solvency and liquidity, where as profit and loss account reflect the earning capacity and potentiality of the firm. The profit and loss account is a scoreboard of the firm's performance during a period. Since the profit and loss account reflects the results of operations for a period, it is a flow statement. In contrast, balance sheet is a stock or status statement as it shows assets, liability and owners' equity at a point of time.

Profit and Loss account presents the summary of revenues and expenses and net income of a firm. It servers as a measure of the firm's profitability. The functions of profit and loss account can be described as follows:

a. It gives a concise summary of the firm's revenue and expenses during a period.
b. It measures the firm's profitability.
c. It communicates information regarding the results of the firm's activities to owners and other.

In conclusion, financial information is required for a financial planning, analysis and decision-making. The user of financial information includes owner's managers, employees, customers, suppliers and society.

The financial statements like Balance Sheet and P/L account are the basic instruments for the analysis of financial performance.

2.1.5 Income Statement

"Income statement is designed to portray the performance of the business firm for specific period of time i.e. for a year or month or quarter. The business revenues and expenses resulting from the accomplishment of the firms operation are shown in the income statements. It is the “Scoreboard” of the firm's performance during particular period of time. It shows the summary of revenues, expenses and net income or loss of a firm for a particular period of time. Income statement also serves as a true measure of the firm's profitability" *(Khan and Jain; 1993: 15).*

2.1.6 Statement of Retained Earning

This statement explains about the Company's position of earnings to be paid as dividend and the portion of profit to be retained for future uses. It also explains how profit, dividend and other transaction affect the retained earnings and share-holders' equity.

Financial analysis is done on the basis of financial statement of the concerned company. The objective of financial analysis can be described as:

- To get the entire information that can be used at the time of decision making.
- To judge overall performance and management effectiveness.
- To identify the deficiencies and weaknesses.
- To take corrective action in time to check such deficiencies and improve the performance.
- To evaluate the possible implications of alternative course of actions.
- To get in dept information of possibilities of brining changes worthwhile.

2.1.7 Tools of Financial Statement

2.1.7.1 Ratio Analysis

The following are the some important financial ratios to analyze the financial performance of selected bank:

(i) Liquidity Ratio

A liquidity ratio measures the ability of the firm to meet its current obligations. In fact, analysis of liquidity need the preparation of cash budgets and cash and funds flow statements; but liquidity ratios, by establishing a relationship between cash and other current assets to current obligations, provide a quick measure of liquidity a firm should ensure that it doesn't suffer from lack of liquidity, and also that it doesn't have excess liquidity. The failure of company to meet its obligation due to lack of sufficient liquidity, will result in poor creditworthiness, loss of creditors' confidence, or even in legal tangles resulting in the closure of the company. A very high degree of liquidity is also bad; idle assets. Therefore, it is necessary to strike a proper balance between high liquidity and lack of liquidity.

(ii) Leverage Ratio

The short-term creditors, like bankers and suppliers of raw materials, are more concern with the firm's debt-paying ability. On the other hand, long-term creditors, like debenture holders, financial institutions etc., are more concerned with the firm's long-term financial strength. In fact, a firm should have a strong short as well as long-term financial position. To judge the long-term financial position of the firm, financial leverage, or capital structure ratios are calculated. These ratios indicate mix of debt and owners' equity in financing the firm's assets. The process of magnifying the shareholders' return through the use of debt is called financial leverage or financial gearing or trading on equity.

(iii) Activity Ratio

Activity ratios are concerned with the measuring of efficiency in assets management. This ratios are employed to evaluate the efficiency with the bank manages and utilizes funds. These ratios are also called turnover ratios because they indicate the speed with which the assets are being converted or turned over into sales.

(iv) Profitability Ratio

A company should earn profits to survive and grow over a long period of time. Profit is the difference between revenues and expenses over a period of time. Profit is the ultimate output of the company, and it will have no future if it fails to make sufficient profits. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of the profits. The profitability ratios are calculated to measure the operating efficiency of company. Besides

management of the company, creditors and owners are also interested in the probability of the firm. Creditors want to get interest and repayment of principal regularly only when the company earns enough profits.

(v) Credit Ratio

Credit ratios are calculated in order to measure the credit position of the banks. It shows what portion of collected deposits are used to make credit and remain cash and bank balances to make immediate payments.

2.1.7.2 Funds Flow Statement

Funds flow analysis is the statement of changes in financial position of any organization that determines only the sources and used of fund between two dates of balance sheet. It is prepared to uncover the information that financial statements fail to describe clearly. It describes the sources from which funds were derived and used to which these funds were put.

The statement is prepared to summarize the changes in assets and liabilities resulting from financial and investment transactions during the period as well as those changes occurred due to the changes in owner's equity. It also uncovers the way of using financial resources during the period by the firm.

Method of preparing funds flow statement depends essentially upon the sense in which the term fund is used. There are three concept of fund: cash concept, total resources concept and working capital concept. According to cash concept, the word fund is synonymous with cash. Total resources concept refers total assets and resources as fund. The term fund represents only to working capital on the stated last concept However, working capital concept of fund has gained wide acceptance as compared to the other concepts. Therefore, any transaction that increases the amount of working capital is taken as source of fund while conducting funds flow analysis. Any transaction that decreases working capital is treated as application. But, any transaction that affects current liabilities or current assets without result any changes in working capital is not taken as sources or use.

2.2 Review of Related Studies

2.2.1 Review of Journals and Articles

Poudel (2053 B.S.), has published an article on *"Financial Statement Analysis: An Approach to Evaluate Bank's Performance"* explained that the balance sheet, profit and loss account and the accompanying notes are the most useful aspects of the bank. We need to understand the major characteristics of bank's balance sheet and profit and loss account. The bank's balance sheet is composed of financial claims as liabilities in the form of deposits and as assets in the form of loans. Fixed assets accounts form a small portion of the total assets. Financial innovations, which are generally contingent in nature, are considered as off-balance sheet items. Interest received on loans/advances and investments and paid on deposits are the major components of profit and loss account. The other sources of income are fee, commission, discount and service charges. The users of the financial statements of a bank need relevant, reliable and comparable information, which assist them in evaluating the financial position and performance of the bank and which is useful to them in making economic decisions. The disclosure requirement of the bank's financial statement has been expressly laid down in the concerned act. Commercial Bank Act 2031 B.S. requires the audited balance sheet and profit and loss account to be published in the leading newspaper for the information of general public.

Pendelton (2061 B.S.), has published an article on "*Nepal's Financial Reform: A Tardy Pace of Deliberate Race.*" He is trying to explore the need and relevancy of financial reform program in Nepal. In this article he suggest that 'HMG/N' has way to go for complete financial reform, restore financial soundness to deserving public much work is left to do; however, the government had set to 'Road Map' to complete this phase and continues to improve the reform process, a process vision to sustain the economy for generations to come. It is important that the citizens of Nepal, particularly the media services, support this effort as well.

Mundul (2007), has published an article on "*Corporate Financial Sector: Restructuring.*" He mentioned that corporate and financial sector restructuring are two aspects of the same problem. The amount of debt and company can sustain – and on which lenders can expect reliable debt service - is determined by the unit's cashflow. Indeed, a company cannot sustain interest payments in excess of its cashflow (i.e. interest coverage < 1:1), let alone make any repayments on the principal. Hence, substantially higher ratios of interest coverage are most desirable. He concluded that the corporate debtors and financial institution creditors will naturally seek to minimize their

losses from corporate restructuring. The government has a role to play in balancing a variety of conflict interest.

Upadhaya (2007), has published an article on "*Five years financial projection of Nepal Telecom.*" He highlighted Nepal Telecom have to investor modern technology in time and optimum utilization of the technology so as to guide for the high return on investment. Only investing on modern technology may not be sufficient to get the required return on investment its optimum utilization is must otherwise the investment in new technology cannot give the return. Investment in modern new technology may turn riskier for the company. He had analyze past five year financial data of NTC and tried to project the financial future of the company. He found that the operating profit of NTC is slightly increasing this is due to decreasing of operating expenses. Study shows that NTC is successful to manage cost efficient. Return on assets is about 26 percent this means company is able earn 26 percent profit in terms of total assets. He projects the future five years financial performance of NTC by using regression analysis, judgmental approach. According to his projection growth rate on return will remain around 4.69 percent.

2.2.2 Review of Thesis

Prior to this study, the several researchers have found various studies regarding financial performance of commercial and joint venture banks. In this study, only relevant subject matters are reviewed which are as follows:-

Poudel (2000) has conducted a study on "*A comparative financial performance analysis of joint venture bank in Nepal (A case study of Nepal Bangladesh Bank Ltd. and Nepal Arab Bank limited).*" The main objective was to analyze and evaluate the financial strength of selected commercial banks. The objectives are as follows:

i) To identifying liquidity position of NB and NABIL and compare the result each other.
ii) To evaluate and compare of profitability between NB and NABIL.
iii) To compare capital structure and leverage between NB and NABIL.
iv) To observe and compare return of the period between NB and NABIL.

Major findings of the study are as follows:

- From the study, it has found that the liquidity position of NB bank is better than that of NABIL.

- Though the liquidity position is lower, NABIL is able to meet its current obligation. Both joint venture banks are extremely leveraged indicating outsiders claim exceed for more than that of the owner and bank assets.
- Comparatively capital structure of NB bank is more risky than that of NABIL. Earning performance and prospects of NB is better than that of NABIL.
- Both Joint Venture Bank to increase their equity capital by issue of share expanding general reserve and retaining more earning.

Deoja (2001) has conducted a research on *"A Comparative Study of the Financial Performance between Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.,"* analyzed different ratio of NSBIBL and NBBL for the period of five years till fiscal year 2000. His main objective was to analyze the financial performance between Nepal SBI Bank Limited and Nepal Bangladesh Bank Limited. The specific objectives are as follows:

i) To analyses the strength and weakness of the selected commercial Banks.
ii) To evaluate the liquidity, leverage, activity, profitability and credit ratio of two commercial Banks.
iii) To examine the financial performance of the selected commercial Banks.

Major findings of the study are as follows:

- Here, in some cases the liquidity position of NBBL is higher where as in some cases the ratio of NSBIBL is higher. It concludes that liquidity position of these two banks is sound.
- NBBL has better utilization of resource in income generating activity than NSBIBL. They are on decreasing trends while interest earned to total assets and return or net worth ratio of NBBL is better than NSBIBL.
- From the point of profitability position of NBBL is better than NSBIBL and both banks are highly leveraged."

Oli (2002) has conducted a research study on *"A Comparative Study of Financial Performance of HBL, NSBIBL and NBBL."* His main objective was to analyze the financial performance between HBL, NSBIBL and NBBL with the help of various financial and statistical analysis. The specific objectives are as follows:

i. To evaluate the liquidity, leverage, activity, profitability and credit ratio of two commercial Banks.
ii. To examine the financial performance.
iii. To recommend the appropriate suggestion to concerned authority.

Major findings of the study are as follows:

- Liquidity position of two JVBs i.e. NSBIBL and NBBL are always above than non standard and HBL is always below than normal standard.

- Total debt with respect to shareholders fund and total assets are slightly higher for HBL than NSBIBL and NBBL.

- The researcher has found from the analysis that NBBL has been successfully utilized their total deposits in terms of extending loan and advances for profit generating purpose on compared to NSBIBL and HBL.

- NSBIBL is also better than HBL. It has concluded that net profit to total assets ratio in case of HBL is found better performance by utilizing overall resources but the generated profit is found lower for the overall resources in three JVBs."

Joshi (2003) has conducted a study on *"A Study on Financial Performance of Commercial Banks."* His main objective was to evaluate the liquidity, leverage, activity, profitability and credit ratio of two commercial Banks. concludes that "Liquidity position of commercial banks is sound. The specific objectives were as follows:

i. To examine the financial performance.
ii. To evaluate the liquidity, leverage, activity, profitability and credit ratio of two commercial Banks.
iii. To recommend the appropriate suggestion to concerned authority.

Major findings of the study are as follows:

- Their debt to equity ratio is high which doubts on solvency.
- Debt to equity ratio of local commercial banks is higher than other joint venture banks.
- Assets utilization for earning purpose is 2/3 of the total assets.

- The main source of income for these banks is interest from loan and advance of overall profitability position, is better than others."

Luitel (2003) has conducted a study on *"A Study on Financial Performance Analysis of Nepal Bank Limited."* His main objective was to analyses the strength and weakness of these two commercial Banks.

The specific objectives are as follows:

i. To examine the overall financial ratio of the selected commercial bank.
ii. To examine the financial performance.
iii. To recommend the appropriate suggestion to concerned authority.

Major findings of the study are as follows:

- The liquidity position of the bank is also not satisfactory during both periods. It is even worse during the second period as various current ratios have fluctuated during these periods and it shows lack of specific policy of holding various types of current assets. Thus, it can be said that the financial position of the NBL is worse during the second period due to its inefficiency in risk management.
- Since NBL has not maintained a balanced ratio among its deposit liabilities during the second period with the first period, the bank seems to be unable to utilize its high cost resources in high yielding investment portfolio.
- During both the periods there are negative operating profit for two years however, the company enjoyed the net profit due to the non-operational activities from first period of both years.
- There is a demarcation between operational and non-operational activities of the bank and performance and result of the first period shows that the bank is more inclined towards non-operating activities. Yet, the overall financial position of the bank is unsatisfactory during both periods.

Joshi (2004) has conducted study on *"Financial Analysis of Nepalese Commercial Banks."* His main objective of finding the comparative financial strengths and weakness of various commercial banks.

The specific objectives are as follows:

i. To analyze the return rate and expected return to the shareholders
ii. To evaluate systematic and unsystematic risk of the banks and providing recommendation on the basis if research findings.

From the study, major findings of the study are as follows:

- It is calculated that lending condition of banks are in decreasing trend.
- Banks in strong condition are holding good customers and discoursing low rated and less amounted loans. Instead of that, they are initiated towards remittance, bank guarantees and other commission generating activities, while other banks are showing aggressive and are spontaneously increasing loan loss provision.
- Deposits in the banks are also decreasing while some banks are holding enough funds. Its recommended for SCBNL was utilizing the maximum of the outsider's funds towards the credit sector because return on credit sector is higher than on investment sector.
- Loan loss provision of SCBNL is comparatively higher. It is recommended to control while sanctioning loan outflows. So, the bank should improve its credit management.

Maharjan (2006) has conducted a study on *"A Study on Financial Performance of NABIL Bank Limited."* Liquidity position of the bank is good enough to meet the short-term obligations. His main objective was to evaluate the overall financial performance of Nabil Bank Limited. The specific objectives are as follows:

i. To examine the strength and weaknesses through ratio analysis.
ii. To examine the financial performance of Nabil Bank Limited.
iii. To recommend the appropriate suggestion to concerned authority.

Major findings of the study are as follows:

- The study shows that the bank is mobilizing its loan and advances adequately. The bank has better mobilization of its saving deposits in loans and advances adequately.
- The bank has better mobilization of its saving deposits in loan and advances for income generating purpose but it has not nicely mobilized its fixed deposits in loans and advances to generate the income. It has not invested more amount in loan and advances a well as less in

government securities efficiently for generating profit. Interest earned by the bank is inadequate in comparison to the assets. So it has drawn attention of the bank towards the sense of significant EBIT.

- Since the net profit of the bank in comparison to the total deposit is relatively low, it focused on earning operational profit wither by increasing their operational efficiency, or by decreasing their operational expenses as far as possible. The bank is also has not formulate and implement some sound and effective financial and non financial strategies to meet required level of profitability as well as the social responsibility.

Rajbhandari (2009), has conducted a study on *"A Comparative Study on Financial Performance of Nabil Bank Limited and Standard Chartered Bank Nepal Limited."* The main objective of the study was to analyze, examine and interpret the financial position of SCBNL and NABIL with the help of ratio analysis and other financial tools.

The specific objectives are as follows:

i. To examine the strength and weaknesses through ratio analysis.
ii. To examine the financial performance of Nabil Bank Limited.
iii. To recommend the appropriate suggestion to concerned authority.

Major findings of the study are as follows:

- In the study she had chosen only two commercial banks as sample i.e. SCBNL and NABIL.
- The main findings in her study were that the liquidity positions of these banks were not satisfactory.
- The current ratio should be in the normal standard of 2:1 but both banks are below the normal standard 2:1, which indicates the both banks i.e. NABIL bank and SCBNL were not adopting constant policy regarding liquidity ratio.
- The cash and bank balance to total deposit ratio, cash and bank balance to current assets and cash and bank balance to saving deposit ratio of SCBNL is higher than that of NABIL bank as per mean ratio.
- It signified SCBNL is more successful in utilizing its amounts of total deposits, current assets and saving deposits in cash and bank balance.

- Cash and bank balance to saving deposit ratio, fixed deposit to total deposit ratio and performing assets to total assets ratio of NABIL bank is higher than that of SCBNL as per mean ratio.
- The leverage or capital structure ratio reveals that the capital structure of NABIL bank was more leverage than that of SCBNL. This implies that NABIL bank is utilizing more outside funds for the benefit of its shareholder than SCBNL.
- The total assets to net worth ratio of NABIL bank are lesser than that of SCBNL as per mean ratio. This shows investment of owner's equity in total assets is minimum than SCBNL. Analysis of activity ratio signifies that both the banks are successful in utilizing or managing the resources or assets satisfactorily.
- Comparatively, loans and advances to total deposits ratio and loans and advances to saving deposits ratio of NABIL bank is more efficiently utilizing the outside funds in extending credit for profit generation.

Sharma (2010) conducted a study on *"A financial performance of capital structure of Everest Bank Limited."* The main objective of the study was to the analyze and evaluate the financial performance of capital structure of Everest Bank Limited. The specific objectives are as follows:

i) To examine the existing financial position regarding the capital structure.
ii) To analyze the composition of Everest bank limited of the mixture of debt and equity capital.
iii) To examine the different profitability ratios of Everest Bank Ltd.

Major findings of the study are as follows:

- From the analysis the position of investment, income, deposits are incresing trend of Everest Bank Ltd.
- The relationship between net profit and capital employed is shown in the capital employed ratio analysis. The ratio has a fluctuating trend. The average ratio is 4.61%. Under net operating approach it is daid that the total valuation of the firm is unaffected by the capital structure.
- The rate of equity capitalization of EBL is in decreasing trend. The cost of equity is continuously decreasing, decrease th equity capitalization rate implies good sign foe

increase in shareholders equity. The average cost of equity is 4.72% and the whole changes rates for all the fiscal yeaar is negative.

- The liabilities and capital for all fiscal year are continuously increasing, it shows that overall situation of bank is growing up the change rates is however, fluctuating liabilities are increasing more than the share capital. And also found debt capacity of EBL is more fluctuating but it shows the changing rate are all positive in all fiscal year and the market value, PE ratio is very good all indicators shows financial activity of Everest Bank Limited are very good.

Pandey (2010), has conducted a study on *"An Analysis of Key Financial Ratio of Commercial Banks in Nepal: A Special Reference with Himalayan Bank Limited and Everest Bank Limited."* The main objective of his study was to find out exact financial ratio of these two commercial banks over the periods of time. He had taken Everest Bank Limited and Himalayan Bank Limited as sample. Mainly he had conducted this research based on secondary data available in both banks' annual reports and manuals. He had presented data using both financial and statistical tools in his study.

The specific objectives are as follows:

i. To examine the overall financial ratio of the selected commercial bank.
ii. To examine the financial performance.
iii. To recommend the appropriate suggestion to concerned authority.

Major findings of the study are as follows:

- Current ratio of both of the banks showed consistent trend. Both the banks could not maintain the conventional standard of 2:1.
- EBL has higher average ratio which implies that EBL is more capable to meet short term obligation in comparison to HBL.
- Normally, the ratio remained consistent in HBL but the ratio of EBL is fluctuated more which is reflected by higher standard deviation.
- Both the selected banks were successful to mobilize their fund as loan and advance with respect to total assets. However, EBL has higher mean ratio than HBL over the study period

which implies that EBL can be taken as better investor than HBL as concerned to consistency, both the sample banks able to maintain consistency.

- According to the analysis of assets management ratio, both the banks were successful in on-balance sheet utilization. Out of these two banks, EBL is found to be best in mobilizing the assets to the profitable sector.
- By analyzing the valuation ratio of selected bank, market value of EBL was higher position than HBL. Total deposits and loan and advances of both the bank were almost positively perfect correlated. Correlation coefficient between total deposit and total investment of both the banks were more than 0.5 with positive sign, which means investment will increase proportionally with the increment in total deposit.
- The trend analysis of EBL was better than that of HBL in all the cases. The growth rate of total deposit, total loan and advance, total investment and total net profit of EBL is higher than that of HBL.

2.3 Research Gap

This study shall be a new study in this field as no study has been made so far in the comparative study on financial performance in Everest Bank and Bank of Kathmandu. This study has tried to indicate the implementation of financial ratios 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.

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 financial performance of EBL, NABIL and HBL. 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 financial performance 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 commercial banks are population of the study and EBL, NABIL and HBL have been selected as sample 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 drew conclusion from them on the basis of established principles and sound logic (Cottleetal; 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 Statistical tools

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

3.6.1 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.

3.6.2 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.

3.6.3 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.

3.6.4 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)

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

3.6.5 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.

3.6.6 Standard Deviation (σ)

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

$$S.D.(\exists) = \sqrt{\frac{x^2}{N} Z \frac{x}{N}^2}$$

3.6.7 Coefficient of Variation (C.V.)

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

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

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%

(Source: Appendix No. 1)

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.

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

(Source: Appendix No. 2)

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

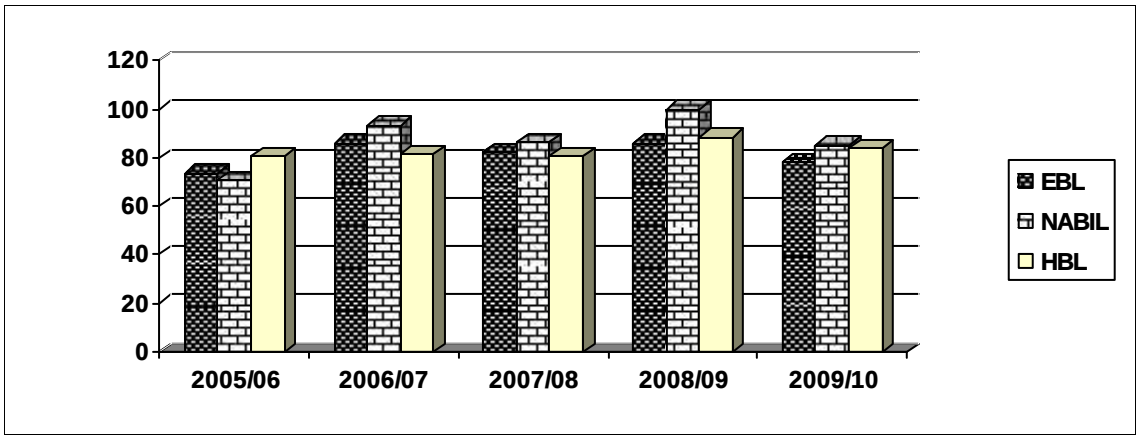
(Source: Appendix No. 5)

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', r^2, P. E. and6. 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 Criterions			
	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', r^2, 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 (r^2) 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 (r^2) 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 r^2 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

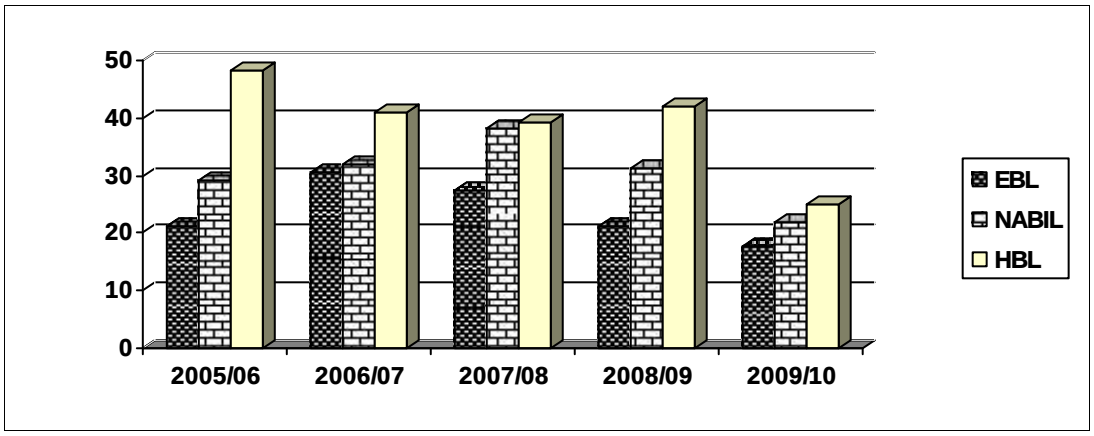
(Source: Appendix No. 9)

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 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 Deposit and Total Investment

Banks	Evaluation Criterions			
	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', r^2, 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 (r^2) 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 with6 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. r^2 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 in2009/10. 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.

4.1.5 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 interpret ate, 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

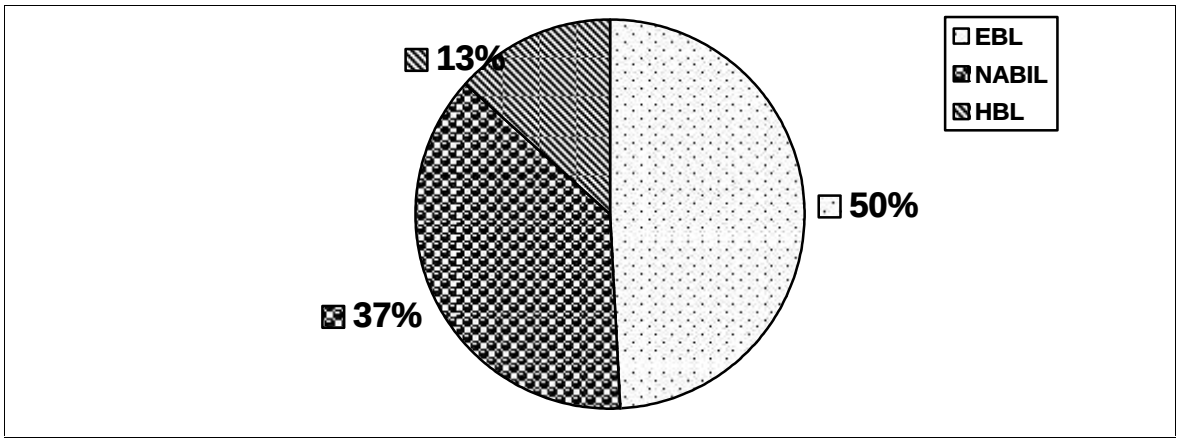
Growth Ratio of Total Deposit

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

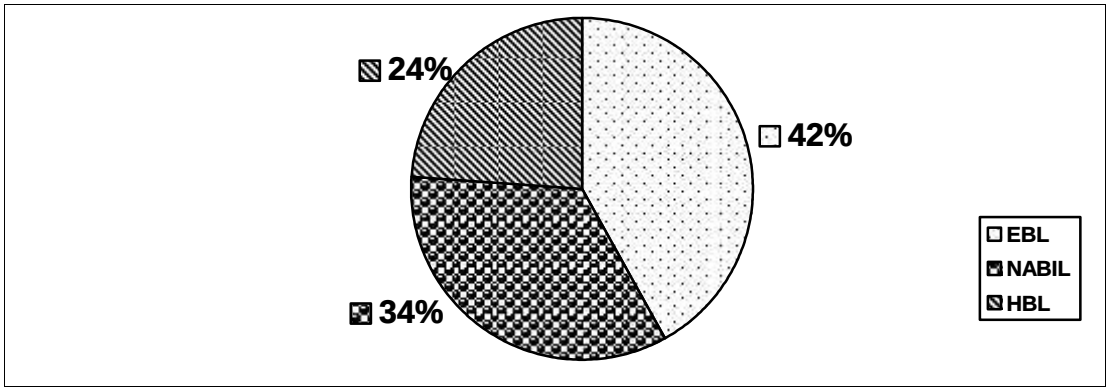
Growth Ratio of Loan and Advances

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

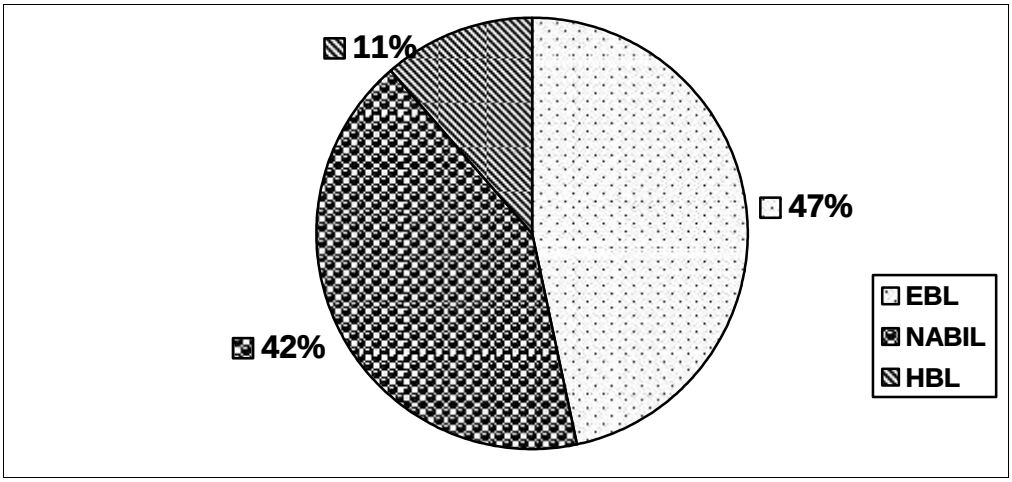
Growth Ratio of Total Investment

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> 6.64%. 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

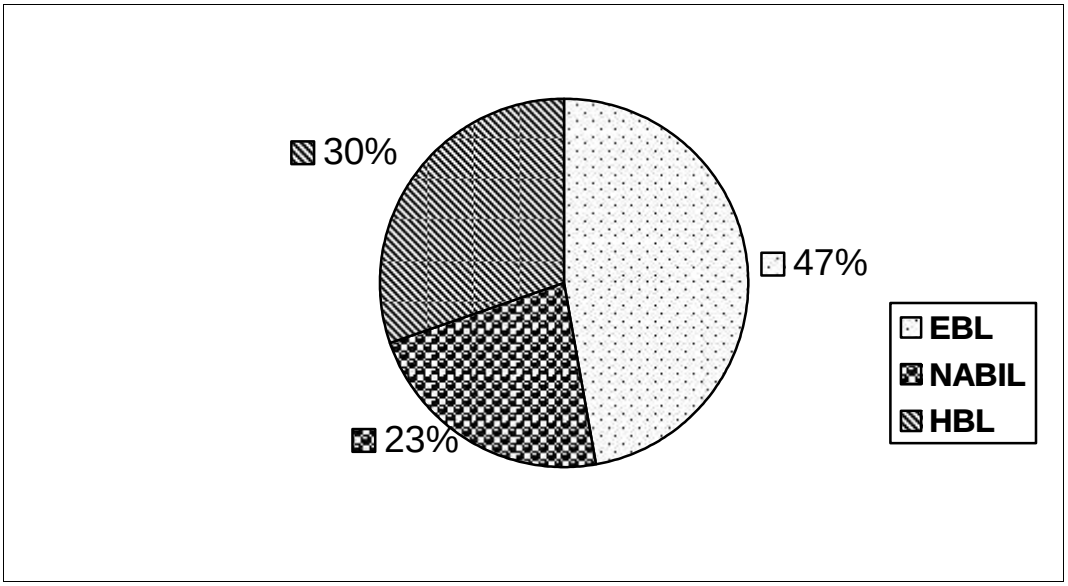
Growth ratio of total net profit

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 4.7

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)

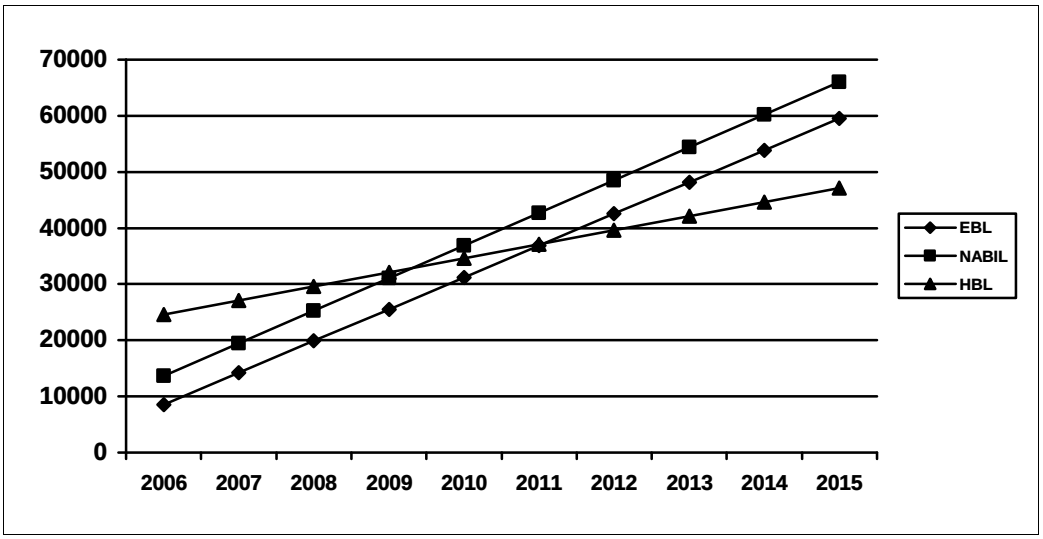
The table 4.15 shows the trend value of total deposit from 2009/10 to 2014/15 of three banks.

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

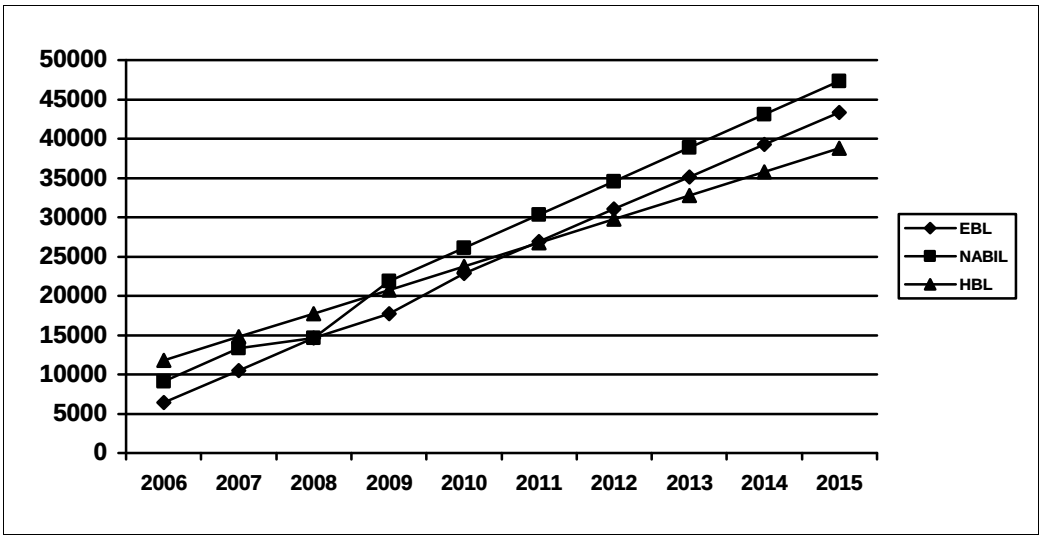
2014	39243.44	43077.41	35786.42
2015	43350.4	47316.94	38790.63

(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

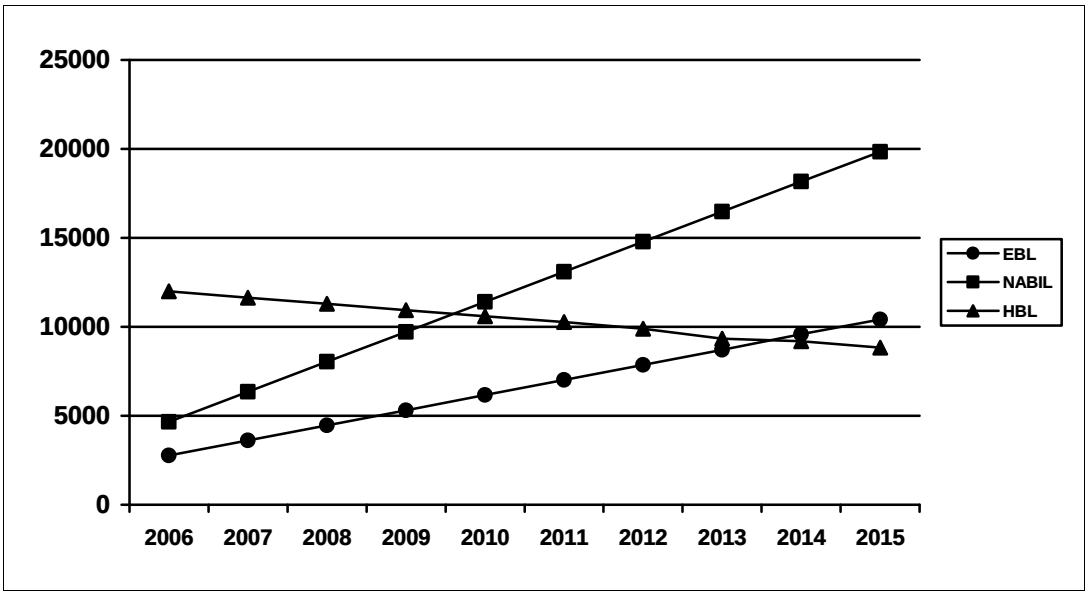
Trend Values of Total Investment of EBL, NABIL and HBL

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 4.10

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 Net Profit of EBL, NABIL and HBL

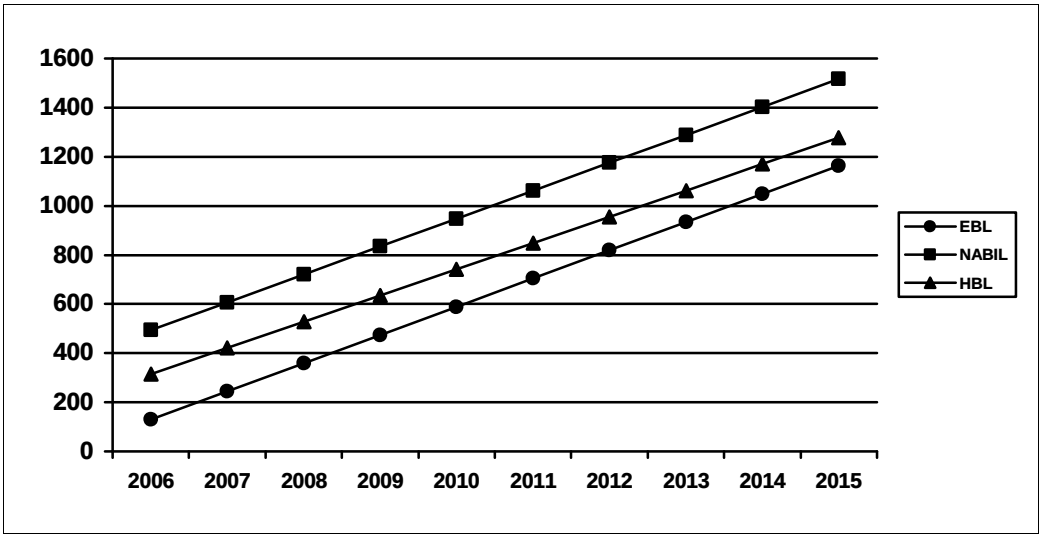
Fiscal year	Trend Value of EBL	Trend Value of NABIL	Trend Value of HBL
2006	129.28	493.90	315.79
2007	244.25	607.44	422.5
2008	359.24	721.084	529.21
2009	474.19	834.67	635.92
2010	589.16	948.26	742.63
2011	704.13	1061.85	849.34
2012	819.10	1175.44	956.05
2013	934.07	1289.03	1062.76
2014	1049.04	1402.62	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 4.11

Trend Value of Net Profit of EBL, NABIL and HBL



From this trend analysis it can be said that the net profit of EBL in the lowest among the banks which shows i.e. 1516.21> 1276.18> 1164.014million 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

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 Criterions		
	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 Criterions		
	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 0.97720and 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 Criterions		
	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 Criterions		
	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	X2	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,

$\overline{X_1}$ X$\frac{X_1}{n}$ $\overline{X}^2$ X$\frac{X^2}{n}$ $\overline{X_3}$ X$\frac{X^3}{n}$

$\frac{368.1}{5}$ $\frac{346.77}{5}$ $\frac{295.93}{5}$

X73.62 X69.354 59.186

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,

$$L \text{ X} \frac{\overline{X_1} \text{ Z} \overline{X_2}}{\sqrt{sp^2 \ \frac{1}{n_1} \Gamma \frac{1}{n_2}}}$$

Where,

$$sp^2 = \frac{1}{n_1 + n_2 - 2}\left[X^2_1 - X^2_2 \right]$$

$$= \frac{1}{5 + 5 - 2}\left[22.28 - 50.72\right]$$

$$= 9.125$$

Now,

Test statistics under H_0 is,

$$t = \frac{73.62 - 69.354}{\sqrt{9125\left(\frac{1}{5} + \frac{1}{5}\right)}}$$

$$= 2.2329$$

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 $\infty = 0.05$ 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 mean 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,

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

Where,

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

$$= \frac{1}{5 + 5 - 2}\left[22.64 - 238.82\right]$$

$$= 32.64$$

Now,

Test statistics under H_0 is,

$$t = \frac{73.62 - 59.86}{\sqrt{32.64\left(\frac{1}{5} + \frac{1}{5}\right)}}$$

$$t = 3.9947$$

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

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	X2	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,

$$\overline{X_1} = \frac{x_1}{n} \qquad \overline{X_2} = \frac{x_2}{n} \qquad \overline{X_3} = \frac{x_3}{n}$$

$$= \frac{117.87}{5} \qquad = \frac{159.62}{5} \qquad = \frac{195.81}{5}$$

=23.574 *=31.924* *=39.162*

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

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,

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

Where,

$$sp_1 \text{ X} \frac{1}{5 \Gamma 5 \text{ Z} 2} \int 106.81 \Gamma 56.981$$

= 20.474

Now,

Test statistics under H_0 is,

$$\text{X} \frac{117.87 \text{ Z} 106.81}{\sqrt{20.474 \ \frac{1}{5} \Gamma \frac{1}{5}}}$$

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 ∞ = 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,

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

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

= 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**	**X2**	**X_2**	**X_2^2**	**X_3**	**X_3**	**X_3^2**
2005/06	73.60	-7.556	57.093	70.71	-16.384	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	31.0249
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,

$\overline{X}_1 = \frac{\sum x1}{n}$ $\overline{X}_2 = \frac{\sum x_2}{n}$ $\overline{X}_3 = \frac{\sum x_3}{n}$

$\overline{X_1}$ X $\frac{405.78}{5}$ $\overline{X_2}$ X $\frac{435.47}{5}$ $\overline{X_3}$ X $\frac{414.69}{5}$

= 81.16 =87.094 = 82.94

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

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,

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

Where,

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

$\frac{1}{5\,\Gamma\,5\,Z\,2}$ ƒ107.78 Z 477.82ʎ

= 73.2

Now,

Test statistics under H_0 is,

$$t \text{ X} \frac{405.78 \text{ Z} 435.47}{\sqrt{732 \ \frac{1}{5} \Gamma \frac{1}{5}}}$$

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 if 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,

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

$$\frac{1}{5 \Gamma 5 \text{ Z} 2} \int 107.78 \Gamma 45.0363^{\wedge}$$

= 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 = -3.32235

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	X2	X_2	X_2^2	X_3	X_3	X_3^2
2005/06	2.24	-0.154	0.02376	4.90	0.624	0.3894	2.48	-0.461	0.2125
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,

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

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

$= 2.394$ $= 4.276$ $= 2.941$

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,

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

$$Sp^2 \text{ X}\frac{1}{5\,\Gamma\,5\,\text{Z}\,2}\,f0.1508\,\Gamma\,1.7241A$$

= 0.2344

Now,

Test statistics under H_0 is,

$$t \text{ X}\frac{11.97\,\text{Z}\,21.38}{\sqrt{0.2344\ \frac{1}{5}\,\Gamma\,\frac{1}{5}}}$$

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,

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

$$\frac{1}{5\Gamma 5\ Z2}\int 0.1508\ \Gamma\ 0.3131A$$

= 0.05798

Now,

Test statistics under H_0 is,

$$t\ X\frac{11.97\ Z14.705}{\sqrt{0.5798\ \frac{1}{5}\Gamma\frac{1}{5}}}$$

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+ 0.074413*X*	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+0.02049 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 HBL shows the fluctuating trend during the study period. The ratio ranges from lowest 1.0661 in 2009/10 to highest 2.1558 in 2006/07 an average ratio of 1.593. The mean ratio of EBL is higher than NABIL and 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 cash and bank balances to total deposit ratio of EBL has fluctuating trend. The main ratio of this bank is higher than NABIL and HBL which indicates that its liquidity position is better to serve its customers deposits withdrawal demands. The C.V. between the ratios is found to be 22.74%, which shows that the ratios of EBL aren't consistent and more variable.
3. 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.
4. 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 10.28% C.V which shows that the ratios are satisfactory consistent over the study period.
5. 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 NABIL is in between the EBL and HBL. NABIL with mean ratio 31.92% and C.V. 10.72% which is consistent. 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.
6. 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.
7. 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.
8. The analysis of the growth ratio of total deposits total loan and advances, total Investments and net profit of EBL in comparison with NABIL and HBL during the study period shows that the total deposits of the bank is in increasing trend with the net growth rate of 34.79%. It has maintained growth rate highest that other compared banks. This means the performance of EBL to collect deposit in comparison to other banks is better year by year.
9. 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.

10. 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.
11. 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.
12. 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.
13. From the trend analysis of total loan and advances it has been seen that the total loan advances of all the three banks have increasing trend. The total loan and advance of NABIL will be 47316.94 million in the mid July 2014, which is highest amount than that of EBL i.e. 43350.4 million and HBL i.e. 38790.63 million.
14. 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.
15. 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.
16. The coefficient of correlation (r) between deposits and loan and advances of the EBL is 0.99704 which is highest among other banks. Its probable error multiplied by six is found to be 0.01084 since ‘r’ > 6 P.E and ‘r’ is positive which is near by 1, there is very strong positive correlation between deposits and loans and advances during study period.

17. The coefficient of correlation between deposits and interest earned of the HBL is 0.9981 and probable error multiplied by six 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.
18. The coefficient of correlation between loan and advances and interest paid of the NABIL is 0.99460. It shows the positive relationship between two variables. Its probable error multiplied by six is found to be lesser than value of 'r' so it indicates that it is successful to utilize the loan and advances. In case of EBL, NABIL and EBL so positive relationship could be established between the loan and advances and interest paid.
19. 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.
20. The calculated value of t 2.2339 is greater than that if the tabulated value 1.860, so there is significant differences between mean ratios of loan and advances to total deposit of EBL and NABIL. And there is no significant difference between mean ratio of loan and advances to total deposit of EBL and HBL, which indicates that it's to mobilize the total deposit on loan and advances for profit generating purpose.
21. There is significant difference between mean ratios of total investment to total deposit ratio of EBL, NABIL and HBL. So these banks must mobilize its deposit funds by investing in different securities issued by government and other financial sectors.
22. 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.
23. 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.

24. The regression of Net profit on net working fund is positive in the case of EBL, NABIL and HBL. It indicates one million increases in net working fund leads to average 0.01890 and 0.01628 increase in net profit of EBL, NABIL and HBL. Test of 't' – statistic helps us to conclude that two regression coefficient are statistically significant i.e. regression equation of net profit on net working fund of EBL, NABIL and HBL.
25. Simple regression of net profit on total deposit is positive in the case of EBL, NABIL and HBL and positive. It reveals that one million increase on total deposit leads to average of 0.02049, 0.019461 and 0.074413 decrease on net profit.

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 financial ratios 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, HBL has been taken as a sample of the study and the collected data have been analyzed by using various financial tools and statistical tools like ratio analysis, correlation coefficient, regression equation etc. Regarding the financial ratios 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

The liquidity position of EBL is comparatively better than of NABIL than HBL .In spite of the current ratio is average among the other two banks EBL has maintained the cash and bank balance to meet the customers demand .ALL the three banks have met the normal standard currents assets ratio to meet the short term obligation of its customers.

From the analysis of assets management ratio it can be found that EBL is in better position as compared to that of NABIL and HBL. The loans and advances to total deposit ratio, loan and advances to total working fund ratio of EBL lies In between those of NABIL and HBL EBL has invested the highest portion of total working fund on government securities as compared to NABIL and HBL. Due to more efficient loan policy, NABIL suffers less from loan loss provision. It takes low credit risk and has sufficient deposits of none bearing interest which can be used in a creation period. Any how EBL has also trying to best in loan loss provision. Investment on shares and debentures to total working fund ratio is higher in HBL The interest earned to total outside assets and return on total working fund ratio of EBL is lowest of all. But overall analysis of profitability ratios, EBL is average profitable in comparison to other compared bank i.e. NABIL and HBL. To make the profit HBL is taking highest risk by providing the higher portion of its deposit as a loan. The return on loan and advances ratio and return on assets of EBL is lowest of all. The ratio suggests that the earning capacity of the banks loan and advances is satisfactory. The return on assets of the bank is good in average; it indicates the good earning capacity of the bank assets and good utilization of its assets.

The total interest paid to working fund ratio is less than the interest earned to total working fund ratio. So it is profitable position as it is getting higher return that is interest cost. The degree of risk is average on EBL. The credit risk ratio is higher than the compared banks. However the lowest C.V. of credit ratio and average C. V. of liquidity risk ratio and capital ratio over the study period provides for the assurance of consistency of the degree of risk. EBL has showing its good performance by increasing the total deposit, loan and advances and investment in profitable sectors interested earnings by providing loan to clients. The trend of the total investment, total deposit, loan and advances and net profit of EBL shows better position than that of 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 bearded 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

Current Ratio = Current Assets / 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
2009/1o	350522	222375	1.5762	295960	255260	1.1586	29813	27967	1.0661

Appendix:-2

Cash and Bank Balance to total deposit ratio = Cash and bank balance / 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 = Cash and bank balance / 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 = Loan and advances / 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	2s9634.74	83.66

Appendix:-5

Loan and advances to Total Deposit Ratio = Loan and advances / 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):

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

=

= 0.99704

Coefficient of Determination(r^2) = 0.99704×0.99704 =0.9969

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

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

=

= 0.990175

Coefficient of Determination(r^2) =

0.990175×0.990175 =0.98044

Probable (P.E.) =$0.6745 \times 1-r^{2/}\sqrt{n}$ =0.2694

6(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):

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

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

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

6(P.E.) =0.06192

Appendix:-9

Total investment to Total Deposit Ratio = Total investment / 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):

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

=

= 0.87151

Coefficient of Determination (r^2) = 0.87151×0.87151 = 0.75953

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

6(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

Coefficient of Determination (r^2) = $0.^{94682} \times 094682$ = 0.89647

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

6(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

Coefficient of Determination (r^2) = 0.97542×0.97542 = 0.9514

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

6(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

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

(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

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

(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

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

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

Appendix:-18
Calculation of Growth Ratio

Let,
D_n=Variable in the n^{th} year
D_o=Variable in the initial year
N= no of period study
G=growth rate

Total deposit growth ratio of EBL

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

$33322.37 = 10097.69(1+g)^{5-1}$
$(1+g) = (33322.37/10097.69)^{¼}$

$(1+g)=1.3479$
$g =34.79\%$

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

$1+g = 1.2649$

$g=0.2649$

$g =26.49\%$

Total deposit growth ratio of HBL

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

$34681.35 = 24184.011(1+g)^{5-1}$
$(1+g) = (37348.25/14586.9)^{¼}$

$1+g = 1.2649$

$g=0.2649$

$g =26.49\%$

Total loans and advances growth ratio of EBL

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

$23884.67 = 7618.67(1+g)^{5-1}$
$(1+g) = (23884.67/7618.67)^{¼}$

$1+g = 1.3306$

$g=0.3306$

Total deposit growth ratio of Nabil

$g =33.06\%$

Total loans and advances growth ratio of HBL

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

$24793 = 12424.52(1+g)^{5-1}$
$(1+g) = (24793/12424.52)^{¼}$

$1+g = 1.1885$

$g = 0.1885$

$g = 18.85\%$

Total loans and advances growth ratio of NABIL

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

$27589.93 = 10586.17(1+g)^{5-1}$
$(1+g) = (27589.93/10586.17)^{¼}$

$1+g = 1.2705$

$g=0.2705$

$g =27.05\%$

Total investment growth ratio of EBL

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

$5948.48=2128.90(1+g)^{5-1}$
$(1+g) = (5948.48/2128.90)^{¼}$

$1+g = 1.2929$

$g=0.2929$

$g =29.29\%$

Total investment growth ratio of HBL

$(1+g) = (8710.69/11692)^{¼}$

$1+g = 1.0709$

$g=0.0709$

$g =7.09$

Total investment growth ratio of NABIL

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

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

$(1+g) = (10826.4/4267.23)$ ¼

$1+g = 1.2621$

$g=0.2621$

$g =26.21\%$

Total Net Profit growth ratio of EBL

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

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

$(1+g) = (638.73/170.80)$ ¼

$1+g = 1.3906$

$g=0.3906$

$g =39.06\%$

Total Net Profit growth ratio of HBL

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

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

$(1+g) = (752.63/308.27)$ ¼

$1+g = 1.250$

$g=0.250$

$g =25.0\%$

Total Net Profit growth ratio of NABIL

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

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

$(1+g) = (1031.05/518.64)$ ¼

$1+g = 1.1874$

$g=29.29$

$g =18.74$

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		$\sum X^{2=10}$	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		$\sum X^2=10$	25086.60	

$a = \frac{\sum y}{n} = \frac{147877.4}{5} = 29575.48$ $\qquad$ $b = \frac{\sum xy}{\sum x^2} = \frac{25086.6}{10} = 2508.66$

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		$\sum X^2=10$	58090	

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

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	X2	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		∑X2=10	41069.78	

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

Project Trend values of loan and anvances 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		$\sum X^2=10$	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 anvances 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		$\sum X^2=10$	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 anvances 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			$\sum X^2=10$	8498.2	

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

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		$\sum X^2=10$		

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

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		$\sum X^2=10$	3512.09	

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

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 0f 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		$\sum X^2=10$	1149.7	

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

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 0f 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 0f 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		$\sum X^2$=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):

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

$=$

$= 0.99669$

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

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

6(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

Coefficient of Determination (r^2) =0.9264× 0.9264= 0.8582

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

6(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)	X2	y2	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

Coefficient of Determination (r^2) = 0.9696× 0.9696= 0.94012

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

6(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):

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

$=$

$= 0.9981$

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

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

6(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):

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

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

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

6(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):

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

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

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

6(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):

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

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

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

6(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):

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

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

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

6(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):

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

Coefficient of Determination (r^2) $= 0.98112 \times 0.98112 = 0.9626$

Probable (P.E.) $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.011293$

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):

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

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

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

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):

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

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

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

6(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):

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

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

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

6(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 …….eq.(I)

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

$\sum y = na + b\sum x$…….eq.(II)

$\sum xy = a\sum x + b\sum x2$……..eq.(III)

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

1796.12 =5a +113249.88b ……..eq.(IV)

48019339.66 =113249.88a + 2953257534b……..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

-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× 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 …….eq.(I)

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

$\sum y = na + b\sum x$…….eq.(II)

$\sum xy = a\sum x + b\sum x2$……..eq.(III)

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

3605.42=5a +1147769.87b ……..eq.(IV)

114415425.7=147769.87a + 4839935875b……..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× 147769.87

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 …….eq.(I)

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

$\sum y = na + b\sum x$…….eq.(II)

$\sum xy = a\sum x + b\sum x2$……..eq.(III)

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

2646.03 =5a +165893.53b ……..eq.(IV)

91810455.35=165893.53a +5597958769 b……..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× 065839.53 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 …….eq.(I)

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

$\sum y = na + b\sum x$…….eq.(II)

$\sum xy = a\sum x + b\sum x2$……..eq.(III)

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

1796.12=5a +99385.61 b ……..eq.(IV)

42523375.34=99385.61 a +2308491195b……..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 +99385.61×0.0204861 b 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 …….eq.(I)

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

$\sum y = na + b\sum x$…….eq.(II)

$\sum xy = a\sum x + b\sum x2$……..eq.(III)

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

3605.42=5a +126539.64 b ……..eq.(IV)

97919931.48=126539.64 a +3545416595b……..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 ×0.019461 b 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 …….eq.(I)

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

$\sum y = na + b\sum x$…….eq.(II)

$\sum xy = a\sum x + b\sum x2$……..eq.(III)

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

2646.03 =5a +147877.4 b ……..eq.(IV)

80693376.27=147877.4a +4406278134b……..eq.(V)

Now, multiplying eq.(IV) by 147877.4and 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 +147877.4×0.074413 b a = 1671.59

Y = 1671.59+ 0.074413x