

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

Nepal is a landlocked country with an agro-based economy. It is sandwiched between two most popular countries, China in the North and India in the East, West, and South. Its total area is about 147,181 sq km. It is divided into mountain, hills, and tarai regions with its geographical nature. The population of Nepal according to the 2001 census is about 23,200,000. Nepal is categorized as the least developed country, having a per capita income of about US \$ 269. About 49% of the total population lives under poverty, and 82% of the population depends upon agriculture for the living. Nepal is poorly developed in the entire sector due to an unstable political environment and rapidly growing terrorism. Without developing the agriculture sector, the development of our economic situation is impossible. In other words, agriculture is the backbone of the Nepalese economy. The banking industry plays an important role to make our backbone strong.

A bank can be defined as a place where the transactions of money take place. In other words, banks are such an institution that collect scattered deposits and advance loans. A bank collects deposits from different individuals and institutions. These collected deposits are mobilized by giving loans to different industries, commercial enterprises, individuals, and households etc. A bank doesn't only perform the activities of receiving deposits and advancing loans but at the same time it performs payment or remittance and other credit activities as well.

The growth of the banking sector in Nepal is not so long ago as compared with other banks of the world. In comparison with other developing countries, the institutional development in the banking system is far behind. Nepal had to wait for a period to enter the present banking position. The origin and growth of banks in Nepal is controversial. At present, there are altogether 25 commercial banks operating in the country. Among these 25 commercial banks, Nepal Bank Limited (NBL) and Rastriya Banjya Bank (RBB) have occupied a wide range of the business due to access to most of the corners of the country. The names, operation dates, and head offices of all the 25 commercial banks are given below:

## List of Licensed Commercial Banks

Mid-January 2008

	Commercial Banks	Operation Date (A.D)	Head Office
1	Nepal Bank Limited	1937/11/15	Kathmandu
2	Rastriya Baniyya Bank	1966/01/23	Kathmandu
3	Nabil Bank Limited (established as Nepal Arab Bank Limited)	1984/07/16	Kathmandu
4	Nepal Investment Bank Limited (established as Nepal Indo - Suez Bank Ltd.)	1986/02/27	Kathmandu
5	Standard Chartered Bank Limited (established as Nepal Grindlays Bank Ltd.)	1987/01/30	Kathmandu
6	Himalaya Bank Limited	1993/01/18	Kathmandu
7	Nepal Bangladesh Bank Limited	1993/06/05	Kathmandu
8	Nepal SBI Bank Limited	1993/07/07	Kathmandu
9	Everest Bank Limited	1994/10/18	Kathmandu
10	Bank of Kathmandu Limited	1995/03/12	Kathmandu
11	Nepal Credit & Commerce Bank Limited (established as Bank of Cylon)	1996/10/14	Siddharthanagar
12	Lumbini Bank Limited	1998/07/17	Narayangadh
13	Nepal Industrial & Commercial Bank Ltd.	1998/07/21	Biratnagar
14	Machhapuchhre Bank Limited	2000/10/03	Pokhara
15	Kumari Bank Limited	2001/04/03	Kathmandu
16	Laxmi Bank Limited	2002/04/03	Birgunj
17	Siddhartha Bank Limited	2002/12/24	Kathmandu
18	Agriculture Development Bank Limited	2006/03/16	Kathmandu
19	Global Bank Limited	2007/01/02	Kathmandu
20	Citizens Bank International Limited	2007/06/21	Kathmandu
21	Prime Commercial Bank Limited	2007/09/24	Kathmandu
22	Sun Rises Bank Limited	2007/10/12	Kathmandu
23	Bank of Asian Limited	2007/10/12	Kathmandu
24	Development Credit Bank Limited		Kathmandu
25	NMB Bank Limited		Kathmandu

(Sources: Banking and Financial Statistic, Mid January 2008, NRB)

Slowly private banks are also initiating to move toward every corner of the country but due to prevailing political crisis they are not being able to meet their objective to reach to every corner of the country. Due to increasing competition banks are forced to innovate new products to their customer and they are also shifting from traditional service procedure to various sophisticated services like Automatic Teller Machine (ATM) card, debit cards, credit cards, housing loan, education loans, vehicle financing.

People deposit their saving in trust of banks repay their deposits promptly when they demand for it. If one banks fails to repay the deposited amount to the public then their will be run in another banks and it leads to insolvency of the banks. So as the regulator, supervisor and inspector NRB always dictate the activities of the banks in the country. It changes its directives from time to time in order to have fair competition between the banks and to safeguards the deposits of the public. As number of banks in the country increase NRB has to be more active towards its regulative and supervising role.

The NRB has also declared to new commercial bank to have minimum paid to capital Rs.250 million to operate all over Nepal except Kathmandu valley and Rs.1000 billion to operate all over Nepal this is effective from 15<sup>th</sup> May 2002. It also directed commercial banks to invest in the shares and securities of an organization not more than 10 Percent paid - up capital of the organization. Likewise, the commercial banks could invest not more than 10 percent in the securities of any one of it's financially self - interest bearing organizations that of not more than 20 percent in case of those financially self- interest bearing organizations. For making investment in the securities like this, the total investment was required to be not more than 30 percent of banks paid – up capital. The investment should be made only in the shares and securities of those organizations which were already listed and were in the process being listed within one year in stock exchange and the banks could not invest in the shares, securities and hybrid capital instruments in those issued by the banks and financial institutions that took permission from NRB to operate their transactions If such investment were made prior to the issuance of this directive, they were required to be taken within the limit prescribed by this directive as at end of FY 2003/04.

[NRB: 2001/02]

## **1.2 Profile of Sample Banks**

### **1.2.1 Nabil Bank Limited (NBL)**

Nabil Bank Limited (erstwhile Nepal Arab Bank Limited) was established on July 12<sup>th</sup> 1984 under a technical service agreement with Dubai Bank Limited, Dubai, which was later merged with Emirates Bank Ltd., Dubai. Nabil Bank is the first and major joint venture bank in the country with key points of representation all over the Kingdom of Nepal. The Bank is managed by a team of qualified and highly experienced professionals.

#### **Shareholdings are distributed as follows:**

- 50% is owned by N.B. International Limited, Ireland
- 20% by local financial institutions
- 30% by the Nepalese public

Today Nabil stands in a position to claim that it is the "Bank of 1st Choice" to all its stakeholders. In the span of 23 years, it has already distributed Rs. 2.86 billion cash dividend and the wealth of the shareholders of the Bank grew to Rs. 24.8 billion as at mid July 2007. Spectacular return on assets and return on equity even during a turbulent and competitive time highlight the inherent strength of the Bank.

The Bank provides a complete range of consumer, retail, SME and corporate banking services through its offices spread across the country. Nabil is the sole banker to a multitude of large corporate, international aid agencies, NGOs and embassies. It is the largest private bank in the country in terms of branch and ATM network. All its branches are interconnected on real time basis. On the technological front, the Bank has earned a reputation in providing an array of card products and Internet / Tele banking facilities besides ATMs and Any Branch Banking Service.

The statement 'Your Bank at Your Service' that the Bank holds on firmly is a resemblance that the Bank's stakeholders are at the core of everything it does. As for the culture embraced by the entire Nabil team, a set of Values, referred to as 'C.R.I.S.P.' in short, represents the fact that the bank uninterruptedly strives to be Customer Focused, Result Oriented, Innovative, Synergistic and Professional. By living these Values, individually as professionals and collectively as a Team, Nabil Bank is committed to Surge Ahead to continue to be the Bank of 1st Choice in Nepal.

### **1.2.2 Nepal Investment Bank Limited (NIBL)**

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital) was Credit Agricole Indosuez, a subsidiary of one of the largest banking groups in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, in April 2002, acquired 50% of the holdings of Credit Agricole Indosuez in Nepal Indosuez Bank. The name of the bank was changed to Nepal Investment Bank Ltd. upon approval of the Bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office.

The shareholding structure comprises of:

- A group of companies holding 50% of the Capital
- Rastriya Baniya Bank holding 15% of the Capital.
- Rastriya Beema Sansthan holding 15% of the Capital.
- The general public holding 20% of the Capital.

#### **Strategic Objectives**

- To develop a customer oriented services culture with special emphasis on customer care and convenience.
- To increase market share by following a disciplined growth strategy.
- To leverage our technology platform and open scalable systems to achieve cost effective operations efficient MIS, improved delivery capability and high services standards.
- To develop innovative products and services that attract our targeted customers and market segments.
- To continue to develop products and services that reduce our cost of funds.
- To maintain a high quality asset portfolio to achieve strong and sustainable returns and to continuously build shareholder's value.
- To explore new avenues for growth and profitability.

Nepal Investment Bank at present has eighteen branches namely Durbar Marg Kathmandu (Head office), Putalisadak Branch, Newroad Branch, Thamel Branch, Kalimati Branch, Pulchowk Branch, Seepadole Branch, Banepa Branch, Janakpur Branch, Birgunj Branch, Jeetpur Branch, Biratnagar Branch, Narayangarh Branch, Pokhara Branch, Butwal Branch, Bhairahawa Branch, Nepalgunj Branch, Birtamod Branch.

## Board of Directors of NIBL

1.	Prithivi B Pande	Chairman and Chief Executive Director
2.	Deepak Man Sherchan	Director
3.	Prajanya Rajbhandari	Director
4.	Rajesh Rajkarnikar	Director "Representative – Rastriya Beema Sansthan"
5.	Dhurba Prasad Bhandari	Director "Representative- Rastriya Banijya Bank"
6.	Surendra Bahadur Singh	Director " Public Share holders"
7.	Damodar Prasad Sharma Pandey	Director "Independent director"
8.	Jitendra Basnyat	Company Secretary and Senior General Manager

### 1.2.3 Himalayan Bank Limited (HBL)

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits. It is the first commercial bank of Nepal with maximum share holding by the Nepalese private sector. Besides commercial activities, the Bank also offers industrial and merchant banking.

Himalayan Bank at present has five branches in Kathmandu Valley namely Thamel, New Road, Maharajgunj, Pulchowk (Patan) and Suryavinayak(moved from Nagarkot). Besides, it has nine branches outside Kathmandu valley namely Banepa, Tandi, Bharatpur, Birgunj, Hetauda, Bhairawa, Biratnagar, Pokhara and Dharan. The bank is also operating a counter in the premise of the Royal Palace. The Bank has a very aggressive plan of establishing more branches in different parts of the Kingdom in near future.

Himalayan Bank's policy is to extend quality and personalized service to its customers as promptly as possible. All customers are treated with utmost courtesy as valued clients. The Bank, as far as possible, offers tailor made facilities to its clients, based on the unique needs and requirements. To extend more efficient services to its customers, Himalayan Bank has been adopting innovative and latest banking technology. This has not only helped the Bank to constantly improve its service level but has also kept it prepared for future adaptation of new technology..

Himalayan Bank is committed to be a "BANKING WITH A DIFFERENCE"

### **Board of Directors of Himalayan Bank Limited**

Mr. Manoj B. Shrestha	Chairman
Mr. Prem Prakash Khetan	Second Vice Chairman
Dr. Ramesh K. Bhattarai	Director
Mr. Prachanda B. Shrestha	Director
Mr. Bijaya B. Shrestha	Director
Mr. Himalaya S. Rana	Chief Advisor
Mr. Amar S. Rana	Alternate Director
Mr. Tulu Islam	Alternate Director
Mrs. Ranjana Shrestha	Alternate Director
Mr. Laxman Maskey	Alternate Director
Mr. Surendra Silwal	Alternate Director
Mr. Kishor Chandra Bade Shrestha	Alternate Director
Mr. Gyem Raj Adhikari	Alternate Director

To depict the performance of any firm financial analysis is essential. Past performance is often a good indicator of future performance. Therefore, all parties are interested to know the trend of past variable such as sales, expenses, net income, cash flow and return on investment and so on... Financial analysis is the process of critical judgment of detail accounting information given in the financial statement.

[HMG,Nepal," Economic survey, 1994/95, Ministry of Finance HMG Nepal]

Financial analysis is the process of determining the significant operation and financial characteristics of a firm from accounting data. It shows the relationship between the various component which can be found in balance sheet and profit and loss statement. The analyze statement contain those information which is useful for management, shareholder, creditors, investors, depositors etc.

### **1.3 Focus of the study**

This study confines comparative analysis of financial performance among NBL, NIBL and HBL. Financial analysis covers analysis and other portfolios of JVBs. Financial analysis is the process of determining the significant operating and financial characteristic of a firm from accounting data and financial statements. Financial ratio

analysis is a widely used tool of financial analysis and its performance. The goal of such analysis is to determine the efficiency and the performance of the firm's management as reflected in the financial records and reports. Besides financial analysis emphasizing profitability the study is focus on financial position analysis, income and expenditure analysis, correlation analysis and trend analysis of NBL, NIBL and HBL. Financial ratio identifies the financial strength and weaknesses of sample banks with the help of basis financial statement namely balance sheet and P/L accounts. It measures the Bank's liquidity, leverage, activity and profitability in rational way.

#### **1.4 Statement of the Problem**

As we know Nepal is developing country and its economy is much depends on the agriculture. Most of the industries are based on the agriculture which provide employment opportunities and assist in improving national economy. Poverty has been a main problem in the country. Therefore, public enterprises are established but most of the public enterprises are not able to run in profit. Even though the government has given the subsidy to run public enterprises, they are not able to contribute to society at desirable rate.

This research will highlight the problems relating with banking sector with respect to three sample commercial banks they are Nabil Bank Limited, Nepal Investment Bank Limited and Himalayan Bank Limited. The sample banks which are choosing for the studies have achieved success in terms of market share and profitability. However it cannot always predict that these banks will continue to maintain profitability and stability of earning. Thus the management of bank should evaluate financial performance of the banks to prepare the sound financial policies.

Ratio analysis is powerful tools for evaluating the financial analysis. It is also a process of determining and interpreting numerical relationship with the help of financial statement. Management use effective strategies through financial tools and analysis for achieving optimal goal. Financial analysis satisfies the interest of common stock holders, equity investors, creditor and management of the banks.

Although all sample banks are able to earn profit and dividend to shareholders, they are facing throat cut competition between them or with other commercial banks.



Therefore some question of problem arises in these sample banks, which are as follows:

- a) To what extents these banks are able to raised and maintain their profitability?
- b) Whether sample banks are more effective and efficient mobilization of fund for better financial performance?
- c) Is there any stability in various ratio policies of the sample banks?
- d) Do financial ratios indicate any strength and weakness of the banks?

### **1.5 Objectives of the Study**

The main objectives of this study are to analysis, examine and interpret the financial position of NBL, NIBL and HBL with the help of ratio analysis and other portfolio. In addition the study tries to evaluate the efficiency and progress of the sample banks comparatively.

The specific objective of the study will be pointed out as follows:

- a) To analysis the financial performance of sample banks in terms of liquidity, profitability, growth, leverage and capital adequacy.
- b) To identify relationship between net profit with respect to deposit, loan and advances and investment.
- c) To analysis the trend of total deposit, loans and advances, total investment, net profit of the selected banks.

### **1.6 Significance of the Study**

Economic development and financial development go side by side and the need of financial institutions availing varieties of banking services to fulfill commerce, trade, industry and agriculture needs of their country is of crucial important in Nepal.

In banking world, Nepal is still in its infant stage although the numbers of financial institution have been increasing. Many commercial banks, finance and insurance

companies have opened up within a few years. The competition in the financial sector in banking industry is ever increasing. However, there have been few commercial banks creating to banking need of the country. The success and failure of such financial institutions would be responsible for disparity of the economy.

Financial analysis play vital role in the management decision. Every organization has to analyze its financial performance. In this way this study is very useable and valuable to major parties interested in the reference to the policy making bodies. This study is important for the following groups and individuals.

- ☞ Further researcher
- ☞ University students who are new generation
- ☞ Financial managers
- ☞ Government
- ☞ NGO's and INGO's
- ☞ Shareholders and creditors
- ☞ Stockbrokers

## **1.7 Limitations of the Study**

This study is simply for partial fulfillment of the requirement of Master in Business Studies (MBS). However there are some limitations, which narrowed the generalization. This study will be limited by following factors:

- a) The study deals with only three banks but it may not applicable to other banks.
- b) The whole study is based on secondary data collected from the respective companies and web sites on internet. As far as the output concerned, any research based on secondary data is not far from limitations due to inherent character.
- c) The study concerns only a periods of 5 years i.e. from 2003 A.D. to 2007 A.D. therefore the conclusion is concern with only above period.
- d) Time and budget limitation

## **1.8 Structure of the Study**

The study will be divided into five chapters. They are as follows:

### Chapter 1: Introduction

Introduction chapter covers background of the study, statement of the problem, objectives of the Study, limitations of the Study and structure of the study.

### Chapter 2: Review of Literature

This chapter deals with different article, books and relevant thesis related to financial analysis.

### Chapter 3: Research Methodology

This chapter is concern with research question, research design, sources of data, population and sampling, data collection procedures and data analysis procedures. In data analysis there are two parts. One is financial analysis where different ratio analysis concern with financial performance is study. Another is statistical analysis where different statistical tools like trend line analysis, correlation analysis and simple regression analysis are mention.

### Chapter 4: Presentation and Analysis

In this chapter different part of ratio analysis are analyze like liquidity ratio, profitability ratio, assets management ratio and growth ratio. Statistical analysis and interpretations of data where study analyze the trend analysis, correlation analysis between different variable terms like total deposit, investment, net profit and loan advances.

### Chapter 5: Summary, Conclusion and Recommendation

In this chapter summary of whole chapter and different results find in data analysis and recommendation to bank for nation development are included.

# **CHAPTER 2**

## **REVIEW OF LITERATURE**

Review of literature means reviewing research studies or other relevant proposition in the related area of the study so that the past studies, their conclusion and deficiencies may be known and further research can be conducted. This chapter will help to check the chances of duplication in the present study. Thus the gap between the previous research and current research can fill out.

### **2.1 Conceptual Review of the Study**

#### **2.1.1 Financial Performance Analysis**

Traditionally, banks act as financial intermediaries to channel funds from surplus units to deficit units. Unlike other non-banking financial companies, commercial banks do not produce any physical goods. They produce loans and financial innovations to facilitate trade transactions. Because of special role they play in the economy, concerned authorities heavily regulate them. An analysis of banks financial statements is different from that of other companies due to the special nature of assets and liabilities. [Paudel N.P. 2053 B.S.]

Balance sheet profit and loss account and the accompanying notes are the most widely aspects of financial statements of the bank. The bank's balance sheet includes financial claims as liabilities in the form of deposit and as assets in the form of loans. Fixed assets appear in small portion out 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 investment and paid in deposit liabilities are major components of profit and loss account. The other sources of income are fee, commission and discounts, foreign exchange income, dividend on investment, other service charge etc.

The users of financial statements of bank require relevant, reliable and comparative information to evaluate the financial performance and position and hence make economic decision regarding the bank. According to 'Commercial Bank Acts 1974' the audited balance sheet and profit and loss account must be published in the leading national newspaper for the information of general public.

Most of the users of financial statements seek to assess the bank's overall performance. Following factors affect the evaluation of bank overall performance.

- The structure of balance sheet and profit and loss account.
- Operating efficiency and internal management system.
- Managerial decisions taken by the top management regarding interest rate, lending policies exchange rates etc.
- Environment changes such as changes in Technology, Government, Competition, Economy etc.

### **2.1.2 General Concept of Financial Analysis**

Every business organization is established with a view of earning profit. Bank is also established with the objectives of maximizing the profit. Profit is necessary for long term existence of business. An investor always invests in that area where profit is maximum. Financial statement is the indicator of business performance that whether business is profitable or not. Financial statement analysis is helpful to the decision maker for finding out favorable or unfavorable situation of a business concern. Financial statement analysis is important not only for the firm's managers but also for the firm's investors and creditors. Internally, financial managers use the information provided by financial analysis to help make financing and investment decisions to maximize the firm's value. Externally, stockholders and creditors use financial statement analysis to evaluate the attractiveness of the firm as an investment by examining its ability to meet its current and expected financial obligations. Financial analysis reflects the financial position of a firm, which is the process of determining the operational and financial characteristics of a firm. Financial analysis also includes consideration of the strategies and economic development. Financial analysis is the main indicator of success or failure of the company. The main function of financial analysis is the pinpointing of the strengths and weaknesses of a business undertaking by regrouping and analysis of figures contained in financial statements, by making comparison 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 and budgeting procedures.

Financial analysis is the process of determining financial strengths and weakness of company by establishing strategic relationship between the components of analysis balance sheet and other operative data. [Pandey I.M.]

According to the Hampton” Financial analysis is used primarily to gain insight in to operating and financial problems conform the firms, with respect to these problems, we must be careful to distinguish between the cause of problem and symptom of it”. It is thus an attempt to direct the financial statements in to their components on the basis of purpose in hand and establish relationship as between these components on the one hand as between individual components and totals of these items on the other. Along 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.

[Hampton J.J., OP. Cit,p 99]

Weston, Besley and Brigham have stated,” Financial statement analysis involves a comparison of analysis firm’s performance with that of other firms in the same line of business which often 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 the strength and correct its weakness.

[Weston J.F., Besley S. and Brigham E.F. 1996, p78 ]

Financial statement analysis is largely analysis study of relationship among the various financial factors in analysis business as disclosed by the single set of statement and analysis study of the trend of these factors as shown in analysis serous of statement.

[Myer J.N. 1961, p4]

Financial analysis is process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet, which represents analysis snapshot of the firm’s financial position analysis at moment in time and next, income statement, that depots analysis summary of the firm’s profitability overtime.

[Vanhorn, J.C.Watchowicz, J.M.1997, p120]

Financial analysis is to analysis the achieved statements to see if the results meet the objectives of the firm, to identify problems, if any in the past of present and/or likely to be in the future and to provide recommendation to solve the problems.

[Pradhan Surendra 2000, p120]

“It is the process of determining the significant operating and financial statements. The goal of such analysis is to determining the efficiency and performance of the firm’s management, as reflected in the financial records and reports.”

[Hampton J.J.1998, p98]

“It is both analysis and judgmental process that helps answer questions that have been poses. Therefore, it is means to end. Apart from the specific analysis answer, the solutions to financial problems and issues depend significantly on the views of the parties involved in the related importance of the issue and on the nature and reliability of the information available.”

[Helfert E.A.1992, p2]

### **2.1.3 Objectives of Financial Analysis**

Financial analysis enables us to explore various facts related to the past performance of business and predict about the potential for achieving expected results. Major objective of analysis of financial statement is to assess various factors in relation to the business firm

- a. The present and future earning capacity or profitability of the concern
- b. The operational efficiency of the concern as a whole and of its various parts or department.
- c. The short term and long term solvency of the concern.
- d. The comparative study regarding to one form with another firm.
- e. The possibility of developments in the future making, future forecasts and preparing budgets.
- f. The financial stability of business concerns the real meaning and significance of financial data.
- g. The long term liquidity of its fund.

### **2.1.4 Needs of Financial Analysis**

The need for the analysis of financial statement arises in order to address the following question:

- a. How was the firm doing in past? Was there any problem? If so in what areas?
- b. How it is doing at present? Is it doing better compared to the past performance, competitors and industry average? Is there any problem at present? If so, in what areas?
- c. What about the future? Is there any likely problem on the way in the future? What will its position be in the future?
- d. What are the expected results of recommendations? Are there improvements?

### **2.1.5 Limitations of Financial Analysis**

Financial Analysis is of great significance for investor, creditors, management, economist and other parties having interest in business. It helps managements to evaluate its efficiency in past performance and take decisions relating to the future. However, it is not free from drawbacks. Its limitations are listed below:

#### **a. Historical nature:**

The basic nature of financial analysis is historical. Past can never be a precise and infallible index of the future and can never be perfectly helpful for the future forecast and planning.

#### **b. No substitute for judgment:**

Analysis of financial analysis is a tool to be used by expert analyst to evaluate the financial performance of a firm. That's why it may lead to faulty conclusion if used by unskilled analyst.

#### **c. Reliability of figures:**

Reliability of analysis depends on reliability of the figures of the financial statements under inspection. The entire working of analysis will be vitiated by manipulation in the



income statement, window dressing in the balance sheet, questionable procedures adopted by the accountant for the valuation of fixed assets and such other facts.

**d. Result may have different interpretation:**

Different users may differently interpret the result derived from the analysis. For example, a high current ratio may suit the banker but it may be the index of insufficiency of the management due to under- utilization of fund.

**e. Change in accounting methods**

Analysis will be effective if the figures derived from the financial statements are comparable. Due to change in accounting methods, the figures of current period may have no comparable base and then the whole exercise of analysis will be useless.

**f. Selection of appropriate tool**

There are different tools of analysis available to the analyst. The tools to be used in a particular situation depend on skill, training, intelligence and expertise of the analyst. If wrong tools are used, it may give misleading results and may lead to wrong conclusion, which may be harmful to the interest of business.

### **2.1.6 Technique of Financial Analysis**

The fundamental of the analytical technique is to simplify or reduce the data under review to understandable terms. There are various tools and techniques of financial statement analysis, each of which is used according to purpose for which the analysis is carried out. The widely used technique is as follows:

- Ratio Analysis
- Statement of changes in financial position
- Cash flow statement

Among them ratio analysis is used by most companies. Therefore in this study we will discuss only about ratio analysis.

#### ***Ratio analysis***

Ratio analysis is one of the important and mostly used financial analysis tools. Ratio analysis is analysis of numerical relationship between financial factors of financial statements. Ratios express a logical relationship between financial elements. It is computed by dividing one element/item/variable by another. Financial ratio analysis

is designed to determine the relative strengths and weakness of business operations. It also provides framework for financial planning and control. Financial managers need the information provided by analysis both to evaluate the firm's past performance and to map future plans. Ratio analysis is widely used but no one ratio gives exact picture.

A ratio is an expression of the quantitative relationship between numbers.

[Wixon, Kell and Bedford]

Ratio analysis is a technique of analysis and interpretation of financial statement evaluate the performance of an organization by creating the ratio from the figures of different accounts consisting in balance sheet and income statement is known as ratio analysis.

[Dangol R.M.]

Ratio analysis involves comparison for a useful interpretation of the financial statement. Ratio is the quantitative relationship between items. A ratio is define as and indicated quotient of two mathematical expressions and is the relationship between two or more thing.

[Van Horn and James C.]

Ratio analysis is an important way to state meaningful relationship between components of financial statement. Ratios are guided or shortcuts that one useful in evaluation the financial position and operations of a company and in comparing then to previous year or to other business concerns. The term ratio refers to the numerical or quantitative relationship between two variables. The rational of ratio analysis lies in the fact that it makes related information comparable.

[Khan M.Y. and Jain P.K.]

Ratio analysis is a powerful tool of financial analysis, which helps in identifying strength and weakness of business concerns. It is a important way to state meaningful relationships between components of financial statements. The primary purpose of ratio is to point out area for further investigation. Ratio analysis has been a major tools used in the interpretation and evaluation of financial statements since late 1800.

Ratio analysis involves basic understands of comparison to a useful interpretation of the financial statements. A single ratio by itself does not indicate favorable or unfavorable condition of a firm unless it is compared to some appropriate standard. Selection of a proper standard of comparison is a most important element of the ratio analysis. Ratio analysis provides guides specially in spotting trends toward better or poor performance and in finding out significant deviation from any average or relatively applicable standard.

Ratio analysis is widely used but no one ratio gives exact picture. In other hand ratio by them is not conclusion, as they are only means and not and end. Ratio analysis is in conceivable that accounting into ratio.

A single ratio it self does not indicate favorable or unfavorable condition. It should be compared with some standard. As

- ) Time serious analysis
- ) Cross- sectional analysis
- ) Industry analysis
- ) Perform analysis

[Pandey I.M.]

Among the large number of financial ratio existing they have been categorized into following groups:

- ❖ Liquidity Ratio
  - Current Ratio
  - Cash and Bank Balance to Total Deposit Ratio
  - Cash and Bank Balance to Current Assets Ratio
  
- ❖ Activity Ratio
  - Loan and Advances to Total Deposit Ratio
  - Loan and Advances to Fixed Deposit Ratio
  - Loan and Advances to Total Working Fund Ratio
  - Investment on Government Securities to Total Working Fund Ratio
  - Investment on Government Securities to Total Working Fund Ratio

- ❖ Profitability Ratio
  - Net Profit to Total Assets Ratio
  - Net Profit to Total Deposit Ratio
  - Net Profit to Net Worth Ratio
  - Total Interest Earned to Total Working Fund Ratio
  - Total Interest Paid to Total Working Fund Ratio
  
- ❖ Leverage Ratio
  - Debt-Asset Ratio
  - Debt-Equity Ratio
  
- ❖ Capital Adequacy Ratio
  - Shareholders Fund to Total Deposit Ratio
  - Shareholders Fund to Total Assets Ratio

## **2.2 Review of Related Studies**

### **2.2.1 Review of Journal**

**Mr. N.P. Poudel**, in the journal entitled, "Financial Statement Analysis: An Approach to Evaluate Bank's Performance" which was published NRB Samachar (An annual publication -2053) is reviews as follows:

According to Mr. Poudel, Balance sheet, Profit and loss a/c and the accompanying notes are the most useful aspects of the banks. It needs to understand the major characteristics of bank's balance sheet and profit and loss a/c. 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 account forms a small portion of the total assets. Financial innovations, which are generally contingent in nature, are considered as off- balance sheet item.

Interest received on loans and advances and investment and paid on deposit liabilities 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 statement 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 bank's

financial statement has been expressly laid down in the concerned act. Commercial banking act 1974 requires the audited balance sheet and profit and loss account to be published in the leading newspaper for the information of general public.

According to Mr. Poudel, the principle objectives of analyzing financial statement are to identifying Liquidity, Profitability and Solvency. Most of users of the financial statements are interest in assessing the bank's overall performance which is affected by the following factors:

- ) The structure of Balance Sheet and Profit and Loss Account.
- ) Operating efficiency and internal management system.
- ) Managerial decision taken by top management regarding interest rate, exchange rate, lending policies etc.
- ) Environmental changes (Technology, government, Competition and Economy.)

The other factors to be considered in analyzing the financial statement of bank are to assess the capital adequacy ratio and liquidity position. In the line of adequacy of bank is assessed on the basis of risk weighted assets, It indicates a bank's strength and solvency. Bank facing with capital adequacy problem may increase capital or reduce assets or reallocate the existing assets structure in other to maintain the desired level of capital base.

Liquidity is measured by the speed with which a bank's assets can be converted into cash to meet deposit withdrawals and other current obligations. It is also important in view of survival and growth of a bank.

**Dr. M.K. Shrestha**, in the journal entitled," commercial Bank's Comparative Performance Evaluation", which was published in Karmachari Sanchay Kosh Publicaiton,2047 is review as follows:

The journal stresses on a proper risk management with appropriate classification of loans under performing and non performing category. Researcher further clarify that adequate provisioning is the surest way to get relief from sinking loan after careful consideration of portfolio risk. A clear out criteria is necessary to treat interest

suspense account and it is advisable that all interest unpaid for more than six month need to be treated as unearned income. Regarding risk management of banks Dr. Shrestha's other suggestion are as follows:

- Any customer having overdue loan of two years or more in his account should not be given other loan facilities.
- Strong provisioning or reservation is required in restructuring portfolio relating to overdue loans.
- All credits including overdrafts should be given a maturity date and should be subjected to revision at that date and consequently categorize as good, substandard or doubtful loans.
- Financial credit worthiness of the borrower must be evaluated properly before granting the loans.

The above journals focus in the various aspects of the bank's economic environment. Mr.N.P. Poudel's work stresses in effective way of evaluating the financial performance and Dr. Sherstha's suggestions are focused towards proper risk management. Whatsoever , aspects of the bank the above journals target, they all have to be combinable assessed and kept in strict consideration for effective and efficient financial performance of the banks in the Nepalese economy.

### **2.2.2 Review of Article**

**Mr. Upendra Kumar Poudel** in the article, "Present Condition of Financial companies" has presented with compared to the commercial bank, the interest rate is relatively high that is provided and accepted by finance companies. The financial companies should not be confined only in the valley. They should extend their services to the rural sectors of hill and tarai to reduce regional imbalance. The collection of deposit and loan investment done by the commercial banks also, to sustain themselves in the environment of competitions, they should introduce novel technology and equipment's to collect deposits and investments .They should learn from the drawbacks, failure and success of commercial banks to effectively maintain as alternative status.

**Mr. Krishna Pradhan** in the article, "Transaction Analysis of Financial Companies in Nepal." has concluded that the finance companies are centered in the city as like commercial banks. If this trends remains, the central bank is to consider novel

strategy. However, financial and banking transaction don't take place in zero, it favors of financial intermediaries. The emergence of closure of financial companies in market economy in common sense. But keeping in mind, the social and economic structure of our country, we should not turn a deaf ear to regional balance.

**Mr. R.L. Shrestha** in the article "Capital Adequacy of Bank in the Nepalese Context" has suggested that the banks deal in highly risky transactions to maintain strong capital base. He concluded that the capital base should neither be too much leading to inefficient allocation of scarce resources nor so weak degree of risk associated with them are subject to changes country wish, bank wish and time period wide.

**Mr. D.P. Poudel** gives more emphasis on financial performance of financial companies in the article "An Overview Financial Companies of Nepal". He had written that at the time 1996, the ratio of capital funds to deposits has been increasing over the time but on top of this , it is substantially below than the authorize level of deposit mobilization, which is ten times of the capital base. Never the less, some of the finance companies have even mobilized the deposits by more than ten times of their capital base by violating the regulatory norms issued by NRB. The credit/ deposit ratio has remained quite high leaving the room for doubt about the quantity of loan especially in the absence of repayment schedule. The loan diversification has been improved however, during a short span of time. As such, the hire purchase housing and term loans are the major sectors, which all together received more than 95% of the total loan and advances in mid July 1996. Because of the mushrooming growth of the number of finance companies, the average sources of funds for each company are natural to decline. Since the varying factor, it is too early to evaluate the performance of financial companies in Nepal but equally important factor is that the regulatory and supervisory authority should keep close eyes to monitor their activities.

### **2.2.3 Review of Past Thesis**

**Mr. Lekh Nath Ghimire** in the thesis "A comparative study of Financial Performance of HBL and NSBIBL" was prepared with the objective of analyzing and interpreting the financial performance. The major uncovered facts of this research was that the overall liquidity, earning and growth position of BHL was stranger than that of NSBIBL's capital adequacy, quality of assets as well as turnover position was found

to be superior to that of HBL. HBL was more efficient in creating in comparison to NSBIBL. Corrective analysis revealed the facts that NSBIBL was able to utilize its resources more efficiently and profitably. Income and operating expenses were in increasing trend and were dominated by interest income of both the banks.

**Mr. Bikram Chandra Gurung** in the study entitled with "A financial study of joint venture bank: A comparative study of Nepal Grindlays bank limited and Nepal Indosuez Bank Limited." has found that profitability records of both the banks have registered an increasing trend during the first half of the study period and have decreased thereafter. He found that the liquidity, profitability and dividend payout ratio of both the banks seem to be favorable and both the banks have been able to manage satisfactory level of capital adequacy ratio in the subsequent years, which is well above the required adequacy norm. He also recommended that both the banks are required to maintain improved capital structure by increasing equity base i.e. issuing more capital, expanding general reserve and retaining more earnings and wide range of fluctuation in the cash/bank to deposit ratio of both the bank should be stabilized after proper diagnosis of the root cause. He had suggested further that both banks should try hard to earn operational profit by increasing their operational efficiencies, mobilizing resource more efficiently or by minimizing operating expenses as far as possible or the both. He has focused mainly on return on deposit of NGBL and NABIL in his study.

**Mr. Shree Ram Ghimire** in the thesis entitled, "A study of financial performance of finance companies in Nepal" concludes that Nepalese finance companies face several problems related to fund mobilization and investment. They work with traditional approach. Finance companies have to revitalize their role require encouraging environment to be innovative and diversify their business to other depending only on time bound fixed deposit that can not always with the long term lending maturity structure. Financial companies continue to have a gradual diversification of their functions by shifting a considerable portion of their assets. In this way he give force to reallocation the funds and diversify such funds innovative and higher profitable area.



**Mr. R. Jha** with the thesis in a topic of "A comparative analysis of financial performance of the Himalayan Bank Limited (HBL), Nepal Arab Bank Limited (NABIL), Nepal Investment Bank Limited (NIBL) and Nepal Grindlays Bank Limited (NGBL) " has examined the comparative strength and weakness of four competitive Joint Venture Bank (JVBS). He has studied the operational aspects of these JVBS taking into account the products they offer. According to his study, NIBL had better results in case of the profitability except return on net worth. Similarly, it had better liquidity, credit deposit and capital adequacy position as compared to HBL, NABIL and NGBL. NGBL holds highest rank regarding performing assets ratio and other indicators like D/P ratio and EPS. All the selected JVBS are extremely levered, though NIBL and NABIL had relatively lower ratios. Trend analysis showed, NABIL's growth in terms of PBT, loans and advances and total deposits has been increasing rapidly that of remaining three selected JVBS.

**Mr. Deepak Joshi** in the thesis "A study on Commercial Banks of Nepal with Special Reference to Financial Analysis of Rastriya Banijya Bank" has concluded that liquidity position of the bank has maintained low- liquidity than required. Gradual increase in the amount of funded debt and highly geared capital structure seem to be negative performance for the bank moreover, return on assets is not satisfactory. The research suggests that the bank should invest its resources in more productive sectors and equity financing should be emphasized.

**Mr. Bishnu Dev Pandey** has conducted another study to analyze and evaluate the financial position of HBL with title of "A Study of Financial Analysis on HBL". In his research, he has concluded that overall liquidity and capital structure position of the bank is not satisfactory. Overall profitability condition was highly appreciable profit generating capability through loans and advances appeared satisfactory. Trend of deposit collection showed that the bank was in a higher risk with respect to saving deposit as against the fixed deposit.

**Sangita Shakya** in the thesis "Comparative analysis of Financial Performance of selected JVBS, A case study of NGBL and HBL" has familiar with comparative strength and weakness and their ability through the analysis of liquidity ratios. The major findings drawn from the study are HBL is more efficient in case of liquidity as

well as it is more levered than NGBL where as HBL is in better condition from the aspect of capital adequacy, activity and profitability ratios. Study showed positive correlation between loans and advances to total debts of both banks. According to the trend analysis, Profit before tax of NGBL has been increasing at the higher rate than that of HBL.

**Diness Raj Shakya** in the thesis “Financial Analysis of JVBs in Nepal” he found that higher debt equity ratio, inadequate investment on priority sector. Highly invested on government securities and debenture, bonds, lower profit margin due to higher operating cost and higher interest expenses in both banks of NABL and NGBL. On the other EPS, DPS are increasing each year. Liquidity position of the bank is satisfactory. Return ratios are in flotation trend where ROA, ROE of NABIL is higher than that of NGBL. NGBL’s profit ability is more satisfactory than that of NABL.

**Mr. Delhi Raj Dulal** in the thesis “Financial Performance of Commercial Banks in Nepal” has found HBL has better efficiency than SCBNL. HBL has been successfully utilized their total deposits in the form of extending loan and advance for profit generating purpose on compare to SCBNL on an average. He had concluded that return on total assets ratio in case of SCBNL is found better performance by utilizing overall resources but the generated profit is found lower for the overall resources in both the joint venture banks. In terms of return on capital employed of SCBNL has better position than HBL bank .SCBNL has utilized in efficient its capital fund. He also found that short term solvency position of both the banks is found below than normal standard though his study period. HBL has sufficient cash bank balance to cover its total deposits in comparison to SCBNL. He concluded that SCBNL seems much better in terms of offering dividend to its shareholders as compared with HBL. The major expenses for both the banks are interest payment. HBL is paying more interest and commission than SCBNL comparatively. It indicates that it has more outsiders’ funds. Similarly office –operating expenses of SCBNL is found higher than HBL. The staff expenses and provision for staffs banks paid by SCBNL is found also higher than HBL though out his study period.

## 2.3 Research Gap

Commercial Bank Invest its deposit in different profitable sector according to the directives and circulars of the Nepal Rastra Bank and guidelines and policy of their own bank. Financial analysis statement has to prepare according to direction of NRB. Nepal Rastra Bank's policy and guidance are changing according time. So, the up to dated study over the change of time frame is major concern for the researcher and concerned organization as well as industry as a whole. This study covers the more recent financial data and analysis is done with in the latest guidelines and curriculum of Nepal Rastra Bank.

No research has been undertaken regarding the comparative analysis of financial analysis between the Himalayan Bank, Nepal Investment Bank and Everest Bank. Some researcher has done the comparative studies of other joint venture bank. But with in this bank, study is not found. Financial analysis is the major function of every commercial bank for evaluating the financial performance .Therefore it is the major concern of stakeholders to know the situation of the bank.

NBL, NIBL and HBL are the leading joint venture commercial banks of the country having the huge market share and its investment a activities and these banks has significant impact on developing the economy of the country. Every year the financial performance is changing according to the environment of the country. Hence, this study fulfills the prevailing research gap about the in depth analysis of the Financial performance which is the major concern of the shareholders and stakeholders.

## **CHAPTER 3**

# **RESEARCH METHODOLOGY**

Research methodology is necessary for each research work. Research methodology is the way to solve the research problems systematically. The research methodology considers the logic behind the methods used in the context of research study and explains why particular method or technique is used. It also highlights about how the research problem has been defined, what data have been collected, what particular method has been adopted.

### **3.1 Research Design**

“A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.” Research design is a plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances. To achieve the objective of the study, descriptive and analytical research designs will be used. Some statistical and accounting tools will be applied to evaluate financial performance of the Banks.

### **3.2 Natures and Sources of Data**

Generally this study is base on secondary data. The data relating to investment, deposit, loan and advances and profit are directly obtained from the balance sheet and profit and loss account of the concerned bank’s annual reports published in their respective annual general meetings and website [www.nepalstockexchange.com](http://www.nepalstockexchange.com) and relevant bank’s website. In addition to that some of the relevant data will also collect from the non bank financial statistics published by the non bank regulation department of Nepal Rastra Bank.

### **3.3 Population and Sampling Design**

It is not possible to study all the data related with all bank of Nepal. There are altogether 25 listed Commercial Banks in our country and their stocks are traded actively in stock market. So the financial analysis of listed three banks is being compared with that average of the same, which are selected from population. From the above listed commercial banks are considered as population.

The selected samples are as follows:

- a) Nabil Bank Limited (NBL)
- b) Nepal Investment Bank Limited (NIBL)
- c) Himalayan Bank Limited (HBL)

### **3.4 Data Collection Procedure**

As explain before, the main sources of secondary data are the annual reports of the banks published in their respective annual general meetings and website [www.nepalstockexchange.com](http://www.nepalstockexchange.com) and relevant bank's website. In addition to that some of the relevant data will also collect from the non bank financial statistics published by the non bank regulation department of Nepal Rastra Bank.

### **3.5 Data Analysis Procedure**

To achieve the objectives of the study, various accounting, statistical and financial tools have been used in this study. The analysis of data is done according to pattern of data available. With the available tools and resources statistical tools such as Karl Pearson's coefficient of correlation, simple and multiple regressions analysis as well as corresponding hypothesis etc is use in the study. Similarly some strong accounting and financial tools such as ratio analysis and trend line analysis are also apply in this study.

The various calculated results obtained through financial and statistic tools are tabulated under different headings. Then they are compared with each other to interpret the results.

#### **3.5.1 Financial Tools**

There are various financial tools and technique each of which is used according to their purpose carried out. Among them ratio analysis is used by most companies. Therefore in this study we discuss about ratio analysis.

##### **3.5.1.1 Ratio Analysis**

Ratio analysis is powerful tool of financial analysis, which helps in identifying financial strengths and weakness of business concerns. The relationship between two accounting figures expressed mathematically is known as a financial ratio." Ratio analysis is used to compare a firm's financial performance and status to that of other

itself over time.” From the help of ratio analysis, the qualitative judgment can be done regarding financial performance of a firm.

In this study, following ratios are calculated and analyzed.

### **3.5.1.1.1 Liquidity Ratios**

As name denotes the liquidity refers to the ratio between liquid assets and liability. Liquidity ratio measures the ability of firm to meet its current obligations. In fact, analysis of liquidity needs the preparation of cash budgets and cash funds, but liquidity ratio, by establishing a relationship between cash and other current assets to current obligation, provide a guide measure of liquidity. Liquidity ratios give insight into the present cash solvency of the firm and its ability to remain solvent of adversities. It is the comparison between the short term obligation and the short firm resources. In case bank, liquidity management is widely used to analyze liquidity position of banks. If a company does not maintain sufficient liquidity then it will result in baa credit ratings, less creditors, confidence, eventually may less to bankruptcy. Thus the company should endeavor to maintain proper balance between sufficient liquidity and unnecessary liquidity for the survival and for avoiding risk.

A bank should ensure that it does not suffer from lack of liquidity and it does not have excess liquidity. Both conditions of liquidity are unfavorable for a bank.

Banks can experience lack of liquidity when cash outflows (due to deposit, withdraws, loans, etc) exceed cash inflows (new deposits loan repayments etc). They can resolve any cash deficiency either by creating additional liabilities or by selling assets. To analyze the ability of banks, the following ratios are calculated.

#### **3.5.1.1.1.1 Current Ratio**

The current ratio is the ratio of total current assets to total current liabilities. It is calculated by dividing current assets by current liabilities, which is presented as follows:

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

Current assets those assets which can be converted into cash bank balance within analysis accounting period such as cash bank balance, investment in treasury bill, money at call or placement, loans, receivable and prepaid expenses .etc.

Current Liabilities refers to the short- term maturing obligations. This includes all deposit liabilities, intra bank reconciliations account, bills payable, tax provision, staff bonus, dividend payable overdrafts, provisions and accrued expenses.

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

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of liquid fund with the bank to make immediate payment to the depositors. This ratio is computed by dividing cash and bank balances by total deposit. This can be presented as follows:

$$\text{Cash and Bank Balance to Total Deposit Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

Cash and bank balance includes cash on hand, foreign cash on hand, cheques and other cash items, balance with domestic banks, balance held in foreign banks and other financial institutions. The total deposits include current deposits, fixed deposits, investment in other financial institution, money at call and short deposit and other deposits. A high ratio indicates the greater ability to meet their deposits liability and vice versa. Moreover, too high ratio is unfit, as capital will be tied-up and opportunity cost will be higher.

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

Since cash and bank balance is the most liquid assets, a financial analyst may examine the ratio of cash and balance to current assets. This ratio shows the percentage of readily available fund with in the banks. It is calculated by dividing cash and bank balance by current assets, which is as follows:

$$\text{Cash and Bank Balance to Current Assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

A high ratio indicates the sound ability to meet their daily cash requirements of their customer deposits and vice versa. Bother higher and lower ratios are not desirable. The reason is that if a bank maintain higher ratio of cash, it has to pay interest on deposits but couldn't invest its cash or current assets in a profitable area so it may lost opportunity to earn something. In the opposites, if a bank maintain low ratio of

cash, it may fail to make the payment for presented cheques by its customer. So, sufficient and appropriate cash reserve should be maintained properly.

### **3.5.1.1.2 Assets Management Ratios (Activity Ratios)**

Traditionally, asset and investment management ratios have been called activity ratios or turnover ratios. What ever designation, the idea is to measure how effectively the firm utilized the investments and the economic resources at its command. Investments are made in order to produce profitable sales. Achieving profitable sales, therefore involves making sound investments. At the practical level, this involves comparisons between the sales and the investment in various assets accounts. The methodology postulates an optimal relationship between sales and the various types of asset investment.

This ratio evaluates the efficiency with which the firm managers and utilizes its assets. They indicate the speed with which assets are being converted or turned over. Thus, these ratios are used to measure the banks ability to utilize their available resources. Various activity ratios are used to predict the effectiveness of asset utilization. Selected ratios for this research are follows:

#### **3.5.1.1.2.1 Loan and Advances to Total Deposit Ratio**

This ratio measures the extent to which the banks are successful to utilized the outsider's fund (total deposit) for the profit generating purpose on the loans and advances. Generally, a high ratio reflects higher efficiency to the utilization of fund and vice-versa. It can be calculated by dividing the amount of loans and advances by the amount of total deposits, which is given below:

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

Here loan and advances refers to total of loan, advances and overdraft and total deposits refer to total of all kinds of deposits.

#### **3.5.1.1.2.2 Loan and Advances to Fixed Deposit Ratio**

This ratio indicates how many times the amount is used in loans and advances in comparison to fixed deposits. Fixed deposits are the main sources of deposit of bank and are high interest bearing obligation whereas loans and advances are the major



sources of investment to generate income for the commercial banks. This ratio is calculated by dividing the amount of loans and advances by fixed deposits that is given below:

$$\text{Loan and Advances to Fixed Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Fixed Deposit}}$$

### 3.5.1.1.2.3 Loan and Advances to Total Working Fund Ratio

Loan and advances is the major components in the total working fund, which indicates the ability of banks are successful in mobilizing their loan and advances on the working fund ratio for the purpose of the income generation. This ratio is computed by dividing loans and advances by total working fund .This are stated as below:

$$\text{Loan and Advances to Total Working Fund Ratio} = \frac{\text{Loan and Advances}}{\text{Total Working Fund}}$$

Here Total working fund includes all assets of on balance sheet items. In other words, this includes current assets. net fixed assets, loans for development bonds and other investment in share, debenture and other etc. A high ratio indicates a better mobilization of fund as loan and advances and vice - versa.

### 3.5.1.1.2.4 Investment on Government Securities to Total Deposit Ratio

Investment is one of the major forms of credit created to earn income. This implies the utilization of firm's deposit on investment in government securities and share, debenture of the other companies and banks. This ratio measure the extent to which the bank are successful in mobilizing total investment on the total deposits, the amount of deposits should be soundly investment in the bank has to put only provide interest on its deposits but also has to declared a handsome dividend to its owners and share holders. This ratio can be calculated by dividing total investment by total deposit. This ratio is mention as below:

$$\text{Investment on Government Securities to Total Deposit Ratio} = \frac{\text{Investment on Government Securities}}{\text{Total Deposit}}$$

Investment consists of investment of government securities, investment on debenture and bonds, share in subsidiary companies, share in other companies and other investment. A high ratio that the bank's efficiency is more investing on its deposit and low indicates in ability to put its deposits for the lending activities.

#### **3.5.1.1.2.5 Investment on Government Securities to Total Working Fund Ratio**

The ratio measure to what extent, Banks are successful in mobilizing their total working fund on different types of government securities to grow income. All the deposits of banks should not be utilized as loans and advances and other from liquidity as well as company's security point of view. That's why some of the investments should be diversified into such kind of investments that has lower risk in companies to loans. Higher the ratio result, better the mobilization of fund as investment on government securities and vice versa. This ratio is calculated by dividing investment on government securities by working fund. This can be stated as:

$$\text{Investment on Govt. Securities to Total Working Fund Ratio} = \frac{\text{Investment on Government Securities}}{\text{Total Working Fund}}$$

#### **3.5.1.1.3 Profitability Ratios**

Profit is the different between total revenue and total expenses over a period of time. Profit is the ultimate out put of a commercial bank and it will have no future if it fails to make sufficient profits. Therefore, the financial manager continuously evaluates the efficiency of the banks in terms of profits. Profitability shows the overall efficiency of the business concerns. The relation of the return of the firm to either its sales or equity of its assets is known as profitability ratio. Profit is necessary to survive in any business field for its successful operation and further expansion. It measures management's overall effectiveness as shown by the return generated on sales and investment. Higher the profitability ratio, better the financial performance of the banks and vice- versa. Profitability ratio can be calculated by following different ratio:

##### **3.5.1.1.3.1 Net Profit to Total Assets**

Net profit refers the profit after interest and taxes. It is also known as return on total assets (ROA). This ratio evaluates the efficiency of company in utilizing and mobilizing of assets and its survival. It is useful for measurement of the profitability of all financial resources invested in the bank assets. It also provides the foundation necessary for company to deliver a good return on equity. Higher return on assets

(ROA) indicates higher efficiency in utilization of total assets and vice-versa. ROA is calculated by dividing the amount of net profit by the total assets.

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

#### **3.5.1.1.3.2 Net Profit to Total Deposit Ratio**

Net profit to total deposit ratio evaluated whether management has been capable to mobilizes and utilize the deposit. It also helps to known the overall performance and generation of profit of Bank. This ratio is most important to identify whether the organization well efficient or not in mobilizing its total deposits. So that corrective action could be taken. Higher ratio indicates better utilization of deposit and vice-versa. Here net profit is profit after taxes and total deposit means total amount of deposit in various account i.e. saving, current, fixed and other .The return on total deposit ratio can be computed by dividing net profit by total deposit. This can be express as follows:

$$\text{Net Profit to Total Deposit Ratio} = \frac{\text{Net Profit}}{\text{Total Deposit}}$$

#### **3.5.1.1.3.3 Net Profit to Net Worth Ratio**

Net worth or shareholders equity refers to the owners claim on the assets of the bank. It can be found by deducting total liabilities from total assets (excluding intangible assets and accumulated losses.) This ratio measures the profit earned by the commercial banks by utilizing owner's equity and there by generating return to satisfy the owners. This ratio indicates sound management and efficiency and wealth maximization of the banks, which in turn is the wealth maximization of the banks. It is calculated by dividing net profit by net worth, which is express as follows.

$$\text{Net Profit to Net Worth Ratio} = \frac{\text{Net Profit}}{\text{Net Worth}}$$

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

The ratio shows the earning capacity of a bank on its total assets (working fund). This ratio exhibits the extent on which banks are successful in mobilizing their working funds to generate income as much as possible. The higher ratio will indicate the high earning power of the banks on its total assets. Total interest earned is calculated by adding the total income from loans, advances, cash, credit, overdrafts and government securities etc. This ratio is calculated by dividing net profit by total working fund.

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

#### **3.5.1.1.3.5 Total Interest Paid to Total Working Fund Ratio**

The ratio is used to measure the percentage of total interest expenses against the total assets. Higher the ratio, higher will be the indication of interest expenses on total assets and vice-versa. Total interest expenses consists the expenses on the deposits, loan and advances, borrowing and other deposits. The ratio is calculated as follows.

$$\text{Total Interest Paid To Total Working Fund Ratio} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

#### **3.5.1.1.4 Leverage Ratios**

Leverage ratios have a number of implications. First, creditors look at equity, or owner supplied funds, as a cushion or base for the use of debt. If owners provide only a small proportion of total financing, the risk of the enterprise are borne mainly by the creditors. Second, by raising funds through debt the owners gain the benefits of achieving control of the firm with a limited commitment. Third, the use of debt with a fixed interest rate magnifies both the gains and losses to the owners. Fourth, the uses of debt with a fixed interest cost and with a specified maturity increase the risk that the firm may both be able to meet its obligations.

In practice, leverage is approached in two ways. One approach examines balance sheet ratios and determines the extent to which borrowed funds have been used to finance the firm. The other approach measures the risks of debt by income statement ratios designed to determine the number of times fixed charges are covered by operating profits. These sets of ratios are complementary, and most analysts examine both.

This ratio is also called solvency ratio or capital structure ratio. A firm should have strong short- term as well as long -term financial position. To judge the term financial position of the firm, these ratios helps to measures the financial contribution of owners and creditors comparatively. These ratios indicate the situation of the capital structure, which is calculated to measure the company's ability of using debt for benefit of shareholders. Long- term creditors like debenture holders, financial institutions etc. are more interested to the firm's long term financial health, debt serving capacity and strength and weakness of the concerns. This ratio may be calculated from the balance sheet items to determine the proportion of debt in total financing. In summary debt ratio tell us the relative proportions of capital of contribution by creditors and by owners.

#### **3.5.1.1.4.1 Debt Assets Ratio**

This ratio exhibits the relationships between creditors fund and owners capital. This ratio shows the proportion of outside fund used in financial total assets. It also provides security / financial safety to the outsider's i.e. potential shareholders, depositor or investors. Higher debt ratio indicates higher financial risk as well as increasing claims of outsiders in total assets and lower ratio indicates lower financial risk as well as decreasing claims of outsiders over the total assets of the firm. Generally 1:2 ratios are considered good but however no hard and fast rule is prescribed. This implies a finance company success in exploiting debt to more profitable areas. This ratio is represents as follows.

$$\text{Debt Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

#### **3.5.1.1.4.2 Debt Equity Ratio**

Debt equity ratio examines the relative claims of creditors and owners against the firm assets. Alternatively, the debt equity ratio indicates the combinations of debt capital and equity capital fund to the investment .The ratio is computed by using following formula:

$$\text{Debt Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

#### **3.5.1.1.5 Capital Adequacy Ratios**

The capital adequacy ratio is used to measure the strength of the capital adequacy of the available capital .It is measured by the capital (Paid up capital + free reserves) to the total assets explain the strength of the capital base of commercial banks. A high or low capital adequacy ratio is undesirable items of lower return or lowered solvency respectively. Therefore appropriate capital adequacy is needed but it is a controversial matter. According to NRB's prescription bank has to keep capital adequacy ratio. NRB's standard of capital adequacy ratio is changing over the time period. The capital adequacy is measured by analyzing following ratio:

##### **3.5.1.1.5.1 Shareholder's Fund to Total Deposit Ratio**

Shareholder's fund to total deposit ratio shows how well bank are maintain sufficient amount as shareholder's fund is comparison to the amount of the total deposit. This ratio is calculated by shareholder's fund divided by total deposit, which is presented as follows:

$$\text{Shareholder's Fund to Total Deposit Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Deposit}}$$

##### **3.5.1.1.5.2 Shareholder's Fund to Total Assets Ratio**

This ratio is concerned with the sufficiency of shareholders fund against the total assets. It is very essential for every financial institution to have a balance of required percentage of total assets at shareholders fund, i.e. capital fund. Generally this ratio measures the relative claims of owners of the bank over its assets. .A high ratio indicates that out of total assets shareholders have more controlled, owner command and vice -versa. This ratio is calculated by dividing shareholder's fund by total assets which is presented as follows:

$$\text{Shareholders Fund to Total Assets Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Assets}}$$

### 3.5.1.1.6 Market Value Ratio / Growth Ratio

Market value ratio represents how well the banks are maintaining their economic and financial position. The ratios can be calculated by dividing the last period divided by the first period divided, then by referring to the computed interest tables. Alternatively, it is calculated by using the following formula,

$$FV = PV (1 + r)^n$$

Where,

FV = Future Value

PV= Present Value

r = rate interest

n= no. of year

A high ratio generally indicates better performance and vice-versa. To examine and analyzed the expansion analysis growth of company. Following growth ratio are calculated in this study.

#### 3.5.1.1.6.1 Net Profit

Net Profit is the main indicator of financial position of any business organization. Net profit is essential for its survival and growth and to maintain capital adequacy through profit retention. This indicator is computed by subtracting total expenditure including tax from operating income and interest. It is also called net profit after tax and interest.

$$NP = OI - (TE + IP + T)$$

Where,

NP = Net Profit after Tax and Interest.

OI = Operating Income

TE = Total Expenditure

IP = Interest Paid

T = Taxes

### 3.5.1.1.6.2 Earning Per Share (EPS)

The earning per share exhibits that the owner is theoretical entitled to get from company. EPS is also identifying to measure the profitability of the shareholders investment. It simply shows that the profitability of bank on a per share basis. This ratio can be calculated by dividing net profit after interest and taxes and less preference dividend by the total number of equity shares outstanding of bank. It is calculated by using following formula.

$$EPS = \frac{NPAIT - PD}{n}$$

Where,

EPS = Earning Per Share

NPAIT = Net Profit after Interest and Taxes

PD = Preference Dividend

n = Number of Equity Shares

### 3.5.1.1.6.3 Dividend Per Share (DPS)

Bank pay certain amount of net profit as dividend to its shareholders under its' policy. The term dividend refers to distributed earning to the shareholders of the bank in return to their investment. Generally, dividend implies that portion of net profit, which is allocated to shareholders as their return in term of cash or share. The difference fund between EPS and DPS is retaining in the company as retain earning. It is calculated total dividend by number of share.

$$DPS = \frac{TDD}{n}$$

Where,

DPS = Dividend Per Share

TDD = Total Distributed Dividend

n = Number of Common Share Outstanding



### 3.5.2 Statistical Tools

Various statistical tools related to this study will draw out to make the conclusion more reliable according to the available financial data. For this study following statistical tools are used.

#### 3.5.2.1 Arithmetic Mean or Average

The average value is a single value with in the range of the data that is used to represent all of the values in the series. Since an average is somewhere with in the range of that data, it is also called a measure of central value. Since average represents the entire data, its value lies somewhere in between the two average. Among them is use the arithmetic mean which is more popular to denote particular type of average. It is obtain dividing sum of obtain observations by the number of items which is presented as follows.

$$\bar{X} = \frac{\sum x}{N}$$

Where,

$\bar{X}$  = Arithmetic Mean

$\sum x$  = Summation for Total Values of the Variable / Observation

N = Number of Items

#### 3.5.2.2 Standard Deviation

The standard deviation is the most important and widely used measure of studying dispersion. It is also known as root mean square deviation for the reason that the square root of the mean of the standard deviation from the arithmetic mean. It is also denoted by the small Greek letter  $\sigma$  (Sigma). The standard deviation measures the absolute dispersion or variability of a distribution. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a serious, a large standard deviation means just the opposite. Hence, standard deviation is extremely useful in judging the representative of the mean.

Symbolically,

$$\sigma = \sqrt{\frac{\sum d^2}{n}}$$

Where,

$\dagger$  = Standard Deviation

$d^2$  = Sum of Squares of the Deviation Measured from the Arithmetic Average

$n$  = Numbers of Item

### 3.5.2.3 Co-efficient of Variation (C.V)

The co-efficient of variation is the corresponding relative measure of dispersion, comparable across distribution, which is defines as the ratio of the standard deviation to the mean expressed in percentage. It is used in such problems where we want to compare the variability of two or more than two series. The series for which the co-efficient of variation is greater is said to be more variable or conversely less consistent, less uniform, less stable or less homogeneous. On the other hand, the series for which co- efficient of variation is less is said to be less variable or more consistent, more uniform, more stable or more homogenous.

We can denotes this by following formula,

$$CV X \frac{\dagger}{\bar{x}} | 100$$

Where,

CV = Co-efficient of Variation

$\dagger$  = Standard Deviation

$\bar{X}$  = Mean / Average

### 3.5.2.4 Co-efficient of Correlation (r)

Correlation is the statistical tool that we can use to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1. When  $r = +1$ , it means there is perfect relationship between two variables and vice-versa. When  $r = 0$ , it means there is no relationship between two variables. The Pearson's1 formula is:

$$r X \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

Where,

r	=	Co-efficient of Correlation
x	=	Independent Variable
y	=	Dependent Variable
N	=	Number of Periods

### 3.5.2.5 Probable Error of the Co-efficient of Correlation

After the calculation of co-efficient of correlation the next thing is to find out extent to which it is dependable. For this purpose the probable error of the coefficient of correlation is calculated. If the probable error is added to and subtracted from the co-efficient of correlation it would give two such limits within which we can reasonably accept the value of co- efficient of correlation to vary. The formula for finding out the probable of error of the Karl Pearson's co-efficient of correlation is:

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

Where,

P.E.r	=	Probable Error of Co-efficient of Correlation
r	=	Co-efficient of Correlation
n	=	Number of Pairs of Observations

In order to conclude whether co-efficient of correlation is significant or not. The following points should be kept in mind.

- ) If the co-efficient of correlations is less than its probable error, it is not at all significant.
- ) If the co-efficient of correlations is more than six times of probable error, it is definitely significant.
- ) If the probable error is not much and if the coefficient of correlation is 0.5 or more it is generally to be significant.

### 3.5.2.6 Co-efficient of Determination ( $R^2$ )

The Co-efficient of determination is the measure of the degree of linear association or correlation between two variables, one of which happens to be independent and other being dependent variable. In other words, co-efficient of determination

measures the percentage of total variation in dependent variable explained by independent variable. The co-efficient of determination can have value ranging from zero which simply means that all the data points in the scatter diagram fall exactly on the regression line. Co-efficient of determination is the square of the co-efficient of correlation.

Symbolically,

$$R^2 = (r)^2$$

Where,

$R^2$  = Co-efficient of Determination

$R$  = Co-efficient of Correlation

### **3.5.2.7 Simple Regression Analysis**

Regression is one of 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. In other word, it is that tools with the helps of which unknown value of one variable can be estimated on the basis of known value of the variable

Sometimes, the correlation between two variables may be insufficient to determine a reliable estimation equation. Yet, if we add the data from more independent variables, we may be able to determine an estimating equation that describes the relationship with greater accuracy. In regression analysis, we use independent variables utilizing more of the information available to us to estimate the dependent variable. . In this study the researcher uses simple regression equation.

### **3.5.2.8 Test of Hypothesis**

The method of statistics which help in arriving at the criterion for such decision is called test of hypothesis or statistical decision making. A hypothesis is analysis assumption that make about the population parameter. Alternatively, a hypothesis is a conjectural statement of the relationship between two or more variables. Hypothesis statement should be able to show the relationship between variables.

The Test of hypothesis is a process of testing of significance regarding the parameter of the population on the basis of the sample drawn from the population. The computed value of the statistics may differ from the hypothetical value of parameter due to sampling fluctuation. If the difference is small, it has arisen due to sampling fluctuations. Hence the difference is considered to be insignificant and the hypothesis is accepted. If the difference is large, it has not arisen due to sampling fluctuations but it is due to some other reasons. Hence the difference is considered to be significant but it is due to some other reasons. Hence the difference is considered to be significant and the hypothesis is rejected. Thus the test of hypothesis discloses whether the difference between the computed statistic and hypothetical parameter is significant or not.

There are different types of hypothesis, among them t-test is to test the validity of our assumption, if sample size is less than 30, t-test is used. For applying t-test in the context of small sample, the 't' value is calculated first and compared with the table value of 't' at a certain level of significance for value of 't' exceeds the table value (say 0.05) we infer that the difference is significant at 5% level. But if 't' is less than the concerning table value of the 't' the difference is not treated as significant.

The t – statistic is calculated by following formula under Ho:

$$T = \frac{r}{\sqrt{1-r^2}} \sqrt{n-2}$$

### 3.5.2.9 Trend Line Analysis

Trend line analysis describes the average relationship between series where the one series related to time and other series to the value of the variable. It is generally shows that the line of the best fit or straight line is obtained or not. The line of the best fit describes the changes in a given series accompanying a unit change in time. Another word, it gives the best possible mean values of dependent variable for a given value of independent variable.

For calculation of the "Line of the best fit", following equation should be kept in mind.

$$Y_c = a + bx$$

Where,

$Y_c$  = the estimated value of Y for given value of x obtained from the line of regression of Y on X

a = "Y- intercept" / mean of Y value

b = "slope of line" / rate of change

x = the variable in time series analysis represent time

In order to determine the value of the constants a and b the following two normal equations are to be solved.

$$Y = Na + b X \quad \text{and} \quad XY = a X + b X^2$$

Where;

N= Number of Years for with the date are given

Here X stands for the time variations and Y for the variables related to time. Naturally, if we take the middle year or the mid – point of the two years as the starting point, X will be equal to 0 and the two equations will then be

$$Y = N a \quad \text{and} \quad XY = b x^2$$

By transformation, we; can write

$$a = \frac{Y}{N} \quad \text{and} \quad b = \frac{XY}{X^2}$$

The term best fit is interpreted in accordance with the principle of least squares which consists in minimizing the sum of squares of the residual of the errors of estimates i.e. the deviation between the given observed value of the variable and their corresponding estimated values as given by the line of best fit.

This topic will be used to forecast the ratios of Total deposit, Total Loan and Advances, Total Investment and Net Profit of the banks for next five years on the base of past five years. The analysis is done under limited factors which are as follows:

- ) The economy will remain unchanged as of present the stage.
- ) Banks will run as of present position.
- ) The guidelines by NRB for Banks will remain unchanged.
- ) The forecast will be true only when the limitations of least square method are carried out.
- ) The main assumption is that other factors are constant.

# CHAPTER 4

## PRESENTATION AND ANALYSIS OF DATA

In this chapter data of sample banks are presented and analyzed according to the objectives set in the introduction chapter. To make a data more realistic and complete qualitative and quantitative analysis is done through different financial ratio and statistical analysis. However there are many ratios but due to some sort coming and constraints, only selected ratios have been taken for analyzing the strength and weakness of the sample banks.

This chapter also helps for presenting a major finding, proper recommendation for researcher which needs to define in next chapter. In this way analysis effort is made to make proper linkage of ever chapter.

In other to find out the strength and weakness and financial performance of the sample banks various ratios and variable have been calculated that are as follows:

### **4.1 Presentation and Analysis of Data**

#### **4.1.1 Ratios Analysis**

Ratio analysis is a powerful tool of financial analysis, which helps in identifying strength and weakness of business concerns. Ratios analysis is the expression of the relationship between the mutually independent figures. It is an important way to state meaningful relationships between components of financial statements. It shows the quantitative relation between two variables. Simple it is calculated as dividing on variable by another variable. The primary purpose of ratio is to point out area for further investigation. Ratio analysis has been a major tools used in the interpretation and evaluation of financial statements.

There are various types of financial ratio which are used by different field for different purpose, such as creditors, investors, financial institutions and management of the firm. In this analysis following ratio are analysis and interpret for the past five year 2003 AD to 2007 AD for different banks.

##### **4.1.1.1 Liquidity Ratios**

As name denotes the liquidity refers to the ratio between liquid assets and liability. Liquidity ratio measures the ability of firm to meet its current obligations Banks should

maintain its satisfactory liquidity position to satisfy the short-term credit needs of the community, to meet demands for deposits, withdrawals, pay maturity obligation in time and convert non-cash assets into cash to satisfy immediate needs without loss to bank consequent impact in long run profit. Liquidity ratio measures the short-run solvency of the firm.

The liquidity positions of the banks are comparatively studied through following ratios:

#### 4.1.1.1.1 Current Ratio

Current ratio indicates the ability of the company to meet its current obligation. This is the board measure of liquidity position of the banks. In another words, it measures the availability for current assets for meeting current liabilities. This ratio is also known as working capital. Following table shows the comparative current ratio for five years.

Table 1: Current Ratio

(Rs. in million)

Fiscal Year	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan I Bank Limited		
	Current Assets	Current Liabilities	Ratio (in times)	Current Assets	Current Liabilities	Ratio (in times)	Current Assets	Current Liabilities	Ratio (in times)
2002/03	13868.30	15135.43	0.9163	7467.30	8359.46	0.8933	16881.45	22259.94	0.7584
2003/04	14244.03	15153.80	0.9400	11103.33	12506.95	0.8878	18495.85	23390.87	0.7907
2004/05	14971.80	15420.82	0.9709	13936.94	15078.84	0.9243	21228.89	26302.94	0.8071
2005/06	18133.82	20352.56	0.8910	17889.28	19900.84	0.8989	23153.11	27694.21	0.8360
2006/07	22829.54	25095.29	0.9097	23555.96	25699.13	0.9166	27446.52	31372.64	0.8749
Mean			0.9256			0.9042			0.8134
S.D.			0.0308			0.0156			0.0444
C.V.(%)			3.3283			1.7255			5.4541

[Sources: Annual Report of Concerned Bank, Refer Appendix -1]

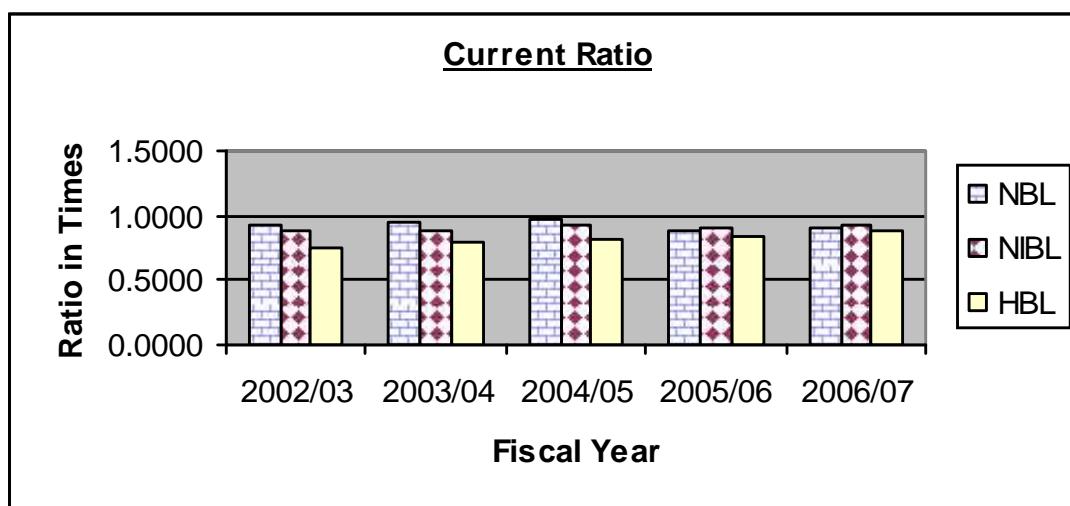
Table 1 indicates the current ratios of the sampled banks. The ratio of NBL is in fluctuating order. From fiscal year 2002/03 to 2006/07 it is in increasing order thereafter ratio is decreasing in fiscal year 2005/06 and increasing in 2006/2007. The highest ratio is registered in 2004/05 which is 0.9709 and lowest ratio is registered in 2005/06 which is 0.8910. Similarly ratio of NIBL is in fluctuating order through out the study period. The highest ratio of NIBL is 0.9243 in fiscal year 2004/05 and lowest ratio is registered in 2003/2004 which is 0.8878. In the same way HBL's ratio is in increasing order. In 2002/03 it has lowest ratio 0.7584 and 2006/07 it has highest ratio 0.8749. Since mean ratios of NBL found to be highest than NIBL and HBL from which we can conclude that NBL is successful to meet their current obligation. Even though NIBL and HBL have failed to maintain the current obligation they are not



failed in earning the profit. From point of view of working policy they have taken the aggressive policy.

As concern with liquidity and consistency NIBL seems to be in better position than NBL & HBL which shows by the lowest C.V. (1.7255 %) among the sample banks NBL and HBL are failed to maintain the consistency in the liquidity.

Figure - 1



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

This ratio measures the percentage of liquid fund with the bank to make immediate payment to the depositors. The main purpose of this ratio is to examine the bank's liquidity capacity on the basis of cash and bank balance. The following table shows the cash and bank balance to total deposit ratio of selected sample banks.

Table 2: Cash and Bank Balance to Total Deposit Ratio

(Rs. in million)

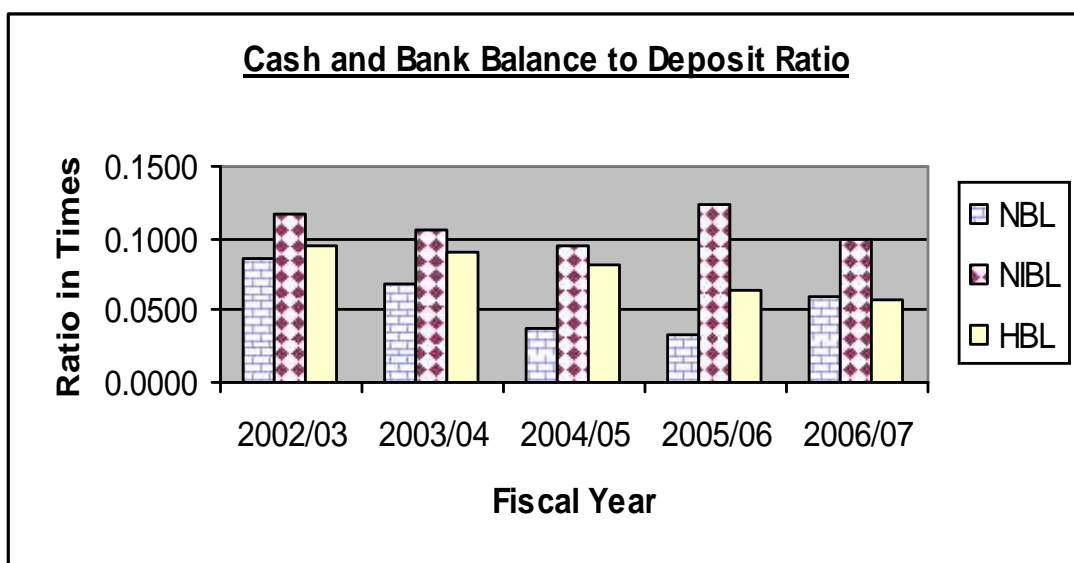
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Cash & Bank Bal.	Total Deposit	Ratio (in times)	Cash & Bank Bal.	Total Deposit	Ratio (in times)	Cash & Bank Bal.	Total Deposit	Ratio (in times)
2002/03	1144.77	13447.66	0.0851	926.53	7922.35	0.1170	1979.21	21007.37	0.0942
2003/04	970.49	14119.03	0.0687	1226.92	11524.68	0.1065	2001.18	22010.33	0.0909
2004/05	559.38	14586.61	0.0383	1340.48	14254.57	0.0940	2014.47	24814.01	0.0811
2005/06	630.23	19347.40	0.0326	2336.52	18927.31	0.1234	1717.35	26490.85	0.0648
2006/07	1399.83	23342.29	0.0600	2441.51	24488.84	0.0997	1757.34	30048.42	0.0584
Mean			0.0570			0.1081			0.0779
S.D.			0.0217			0.0121			0.0158
C.V. (%)			38.0890			11.1871			20.2263

[Sources: Annual Report of Concerned Bank, Refer Appendix -2]

Table 2 shows the fluctuation on cash and bank balance to total deposit ratio of Nabil Bank and Investment Bank but Himalayan Bank is in decreasing order. During study of five years period, the ratio of NBL is highest in 2002/03 which is 0.0851 and lowest in 2005/06 which is 0.0326. Similarly NIBL has highest ratio in 2005/06 and lowest in 2004/05 which is 0.1234 and 0.0940 respectively. HBL is ranged between 0.05848 in 2006/07 and 0.0942 in 2002/03. It is found that NIBL has maintained the highest mean ratio which is 0.1081 than other NBL and HBL. Which shows that NIBL has successful in maintains the higher cash and bank balance to total deposit ratio. But it does not mean that it has invested in profitable sector. It actually means that NBL are successful in meeting the daily cash requirement.

NIBL has maintains the higher cash and bank balance to total deposit ratio as well as it has better position in consistency which is shown by lowest C.V. (11.1871%), they have a consistency in utilizing the cash balance among the other sample banks. In comparison, HBL mean ratio is 0.0158 and C.V. is 20.2263 % which indicate the higher cash balance and lower consistency. NBL mean ratio is 0.0570 and C.V. is 38.0890 % which indicate the lower cash balance and lower consistency. Holding cash and bank balance can have a negative impact on the goodwill and reputation of the bank to fulfill the demand of the profit holder and lower cash balance can have a negative impact on the customer. Therefore banks should maintain the enough liquidity.

Figure -2



#### 4.1.1.1.3 Cash and Bank Balance to Current Assets Ratio.

Cash and bank balance to total deposit ratio shows the percents of readily available fund with in the banks. A high ratio indicates the sound ability to meet their daily cash requirements of their customer deposits and vice versa.

Table 3: Cash and Bank Balance to Current Assets Ratio

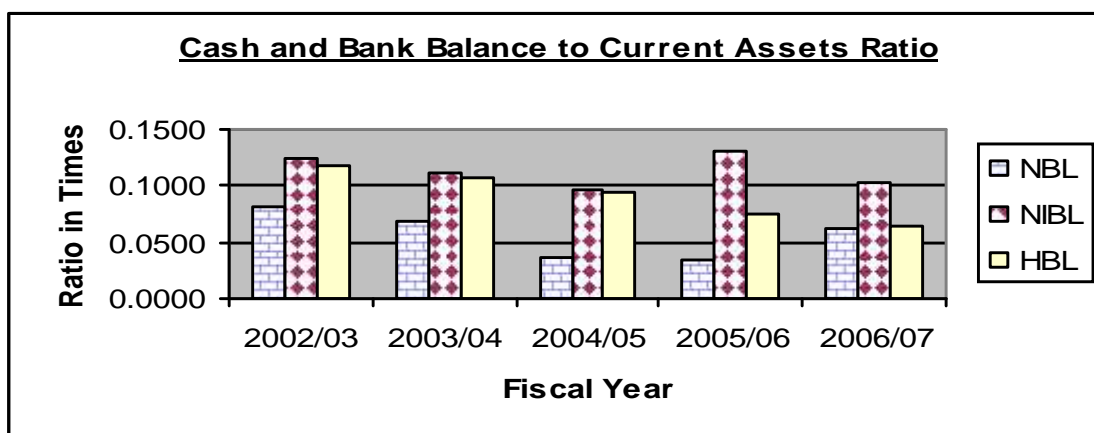
(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Cash & Bank Bal.	Current Assets	Ratio (in times)	Cash & Bank Bal.	Current Assets	Ratio (in times)	Cash & Bank Bal.	Current Assets	Ratio (in times)
2002/03	1144.77	13868.30	0.0825	926.53	7467.30	0.1241	1979.21	16881.45	0.1172
2003/04	970.49	14244.03	0.0681	1226.92	11103.34	0.1105	2001.18	18495.85	0.1082
2004/05	559.38	14971.80	0.0374	1340.48	13936.94	0.0962	2014.47	21228.89	0.0949
2005/06	630.23	18133.82	0.0348	2336.52	17889.28	0.1306	1717.35	23153.11	0.0742
2006/07	1399.83	22829.54	0.0613	2441.51	23555.96	0.1036	1757.34	27446.52	0.0640
Mean			0.0568			0.1130			0.0917
S.D.			0.0205			0.0142			0.0224
C.V. (%)			36.0185			12.5882			24.4293

[Sources: Annual Report of Concerned Bank, Refer Appendix -3]

Table 3 shows that the ratio of NBL is ranged between the 0.0348 in 2005/06 and 0.0825 in 2002/03 with mean ratio of 0.0568, NIBL is ranged between the 0.0962 in 2004/05 and 0.1306 in 2005/06 with mean ratio of 0.1130 and HBL is ranged between 0.0640 in 2006/07 and 0.1172 in 2002/03 with mean ratio of 0.0917. Since, the mean ratio of NIBL is higher than the average of all sample banks. It supports the conclusion is that, NIBL has been successful in maintaining its higher cash and bank balance to current assets ratio, but it doesn't mean that it has mobilized its more funds in profitable sectors. It actually means that NIBL can meet its daily cash requirement. In contrast NIBL has a lowest mean ratio because it may have invested their fund in more productive sectors. NIBL has lowest C.V. (12.5882%) which means they are successful in maintaining a stability of cash and bank balance in comparison to other sample banks.

Figure -3



#### 4.1.1. 2 Activity Ratio/ Assets Management Ratios

Activity Ratio/ Assets Management Ratios indicate the speed with which assets are being converted or turned over. Thus these ratios are used to measure the banks ability to utilize their available resources. Asset management ratio predicts how efficiently banks manage the resources at its command. The following asset management ratios are used in this study for comparison of the banks.

##### 4.1.1.2.1 Loan and Advance to Total Deposit Ratio

This ratio measures the extent to which the Banks are successful to mobilize the total deposits on loans and advances for the purpose of income generation. The following table exhibits the ratio of loans and advances to total deposits of the Banks throughout the study period.

Table 4: Loan and Advances to Total Deposit Ratio

(Rs. in million)

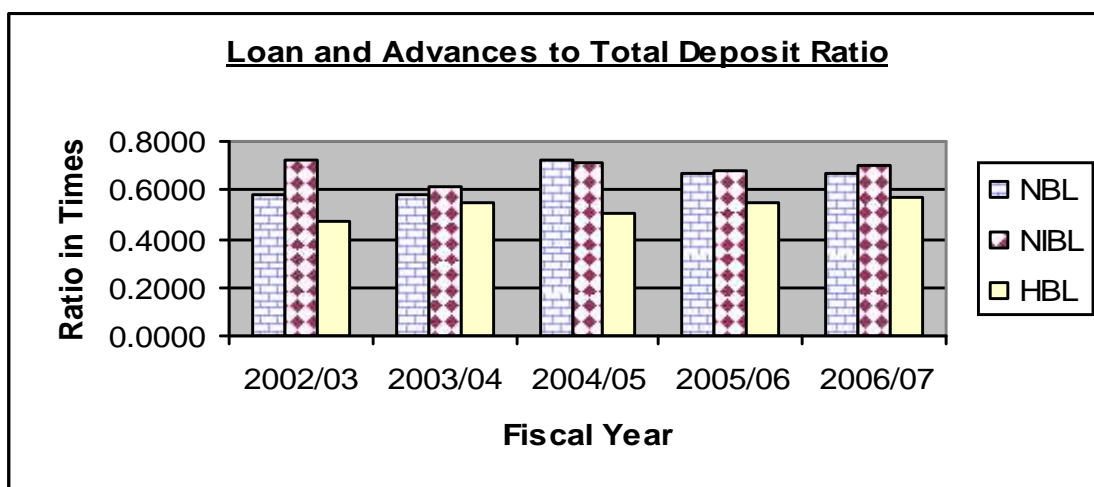
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Loan & Advances	Total Deposit	Ratio (in times)	Loan & Advances	Total Deposit	Ratio (in times)	Loan & Advances	Total Deposit	Ratio (in times)
2002/03	7755.95	13447.66	0.5768	5772.14	7922.75	0.7286	10001.85	21007.37	0.4761
2003/04	8189.99	14119.03	0.5801	7130.13	11524.68	0.6187	11951.87	22010.33	0.5430
2004/05	10586.17	14586.61	0.7257	10126.06	14254.57	0.7104	12424.52	24814.01	0.5007
2005/06	12922.54	19347.40	0.6679	12776.21	18927.31	0.6750	14642.56	26490.85	0.5527
2006/07	15545.78	23342.29	0.6660	17286.42	24488.84	0.7059	16998.00	30048.42	0.5657
Mean			0.6433			0.6877			0.5277
S.D.			0.0639			0.0431			0.0377
C.V. (%)			9.9371			6.2705			7.1508

[Sources: Annual Report of Concerned Bank, Refer Appendix -4]

Table 4 reveals the fluctuation of ratio during the study period of five years of sample banks. In fiscal year 2002/03 and 2004/05 NBL has registered the lowest ratio (0.5768) and highest ratio (0.7257) respectively with mean ratio of 0.6433. Similarly NIBL has registered the highest ratio (0.7286) in year (2002/03) and lowest ratio (0.6187) in year 2003/04 with mean ratio of 0.6877, which shows that they are successful in mobilizing the loan and advances to profitable sector with respect to total deposit. HBL has registered the lowest (0.4761) and highest (0.5657) ratio in fiscal year 2002/03 and 2005/06 respectively with highest mean ratio 0.5277, which is lowest among the sample banks.

As concerned with the consistency of NBL is failed to maintain the consistency in comparison to NIBL and HBL because they have a higher C.V. 9.9371%. NIBL has a lowest C.V. of 6.2705 %, thus they are able to maintain the consistency. In case of HBL they have a C.V. of 7.1508 which shows that they are able to maintain the stability in investing through loan and advance to some extent.

Figure - 4



#### 4.1.1. 2. 2 Loan and Advance to Fixed Deposit Ratio

This ratio measures the effectiveness of mobilizing loan and advance in respect with fixed deposit. Fixed deposits are high interest bearing obligation whereas as loan and advances are the major sources of investment to generate income for the commercial banks. The following table displays the ratio of loan and advances to fixed deposit ratios of sample banks.

Table 5: Loan and Advances to Fixed Deposit Ratio

(Rs. in million)

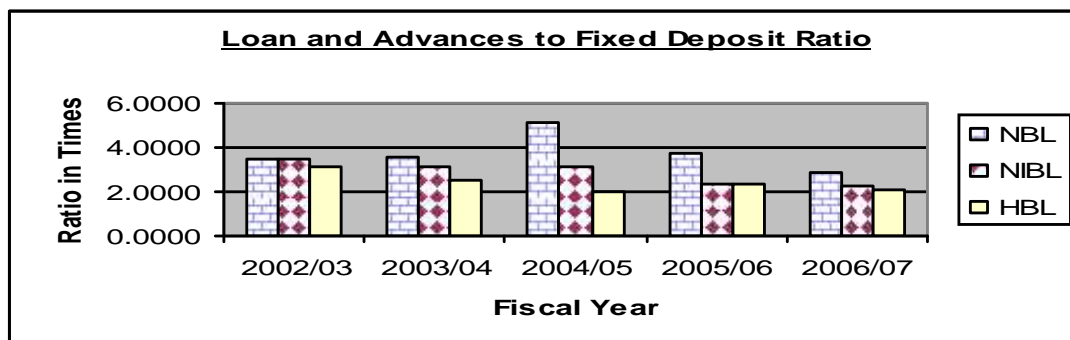
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Loan & Advances	Fixed Deposit	Ratio (in times)	Loan & Advances	Fixed Deposit	Ratio (in times)	Loan & Advances	Fixed Deposit	Ratio (in times)
2002/03	7755.95	2252.55	3.4432	5772.14	1672.82	3.4505	10001.85	3205.37	3.1203
2003/04	8189.99	2310.57	3.5446	7130.13	2294.70	3.1072	11951.87	4710.18	2.5375
2004/05	10586.17	2078.54	5.0931	10126.06	3212.27	3.1523	12424.52	6107.43	2.0343
2005/06	12922.54	3449.09	3.7467	12776.21	5412.97	2.3603	14642.56	6350.20	2.3058
2006/07	15545.78	5435.19	2.8602	17286.42	7516.69	2.2997	16998.00	8201.13	2.0726
Mean			3.7375			2.8740			2.4141
S.D.			0.8263			0.5143			0.4434
C.V. (%)			22.1084			17.8939			18.3683

[Sources: Annual Report of Concerned Bank, Refer Appendix -5]

Table 5 shows that all sample banks has fluctuation ratio throughout the study period. NBL has increasing order of ratio from fiscal year 2002/03 to 2004/05 and then decreasing order from 2005/06. The highest ratio (5.0931) registered by NBL is in year 2004/05 and lowest ratio (2.8602) registered in year 2006/07. NIBL has a fluctuating ratio ranged between the 2.2997 and 3.4505 in year 2006/07 and 2002/03 respectively. Similarly, HBL has registered the highest ratio 3.1203 in year 2002/03 and lowest ratio 2.0343 in year 2004/05. The mean ratio of NBL, NIBL and HBL are 3.7375, 2.8740 and 2.4141 respectively.

Thus above table clearly indicate that loans and advances are being effectively and properly utilized by NBL and NIBL with respect to fixed deposit, Whereas HBL seems to be less effective in utilizing the loan and advance in comparison to sample banks. Among sample banks NIBL is able to success in maintaining the stability in investing in loan and advances with respect to fixed deposit, which is indicate by lowest C.V. 17.8939%.

Figure - 5



#### 4.1.1.2.3 Loan and Advance to Total Working Fund Ratio

This ratio exhibits the extent to which the banks are successful in mobilizing their total assets (working fund) on loans and advances for the purpose of income generation. The following are the ratios of different sample banks that have been calculated in the study period:

Table 6: Loan and Advances to Total Working Fund Ratio

(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Loan & Advances	Working Fund	Ratio (in times)	Loan & Advances	Working Fund	Ratio (in times)	Loan & Advances	Working Fund	Ratio (in times)
2002/03	7755.95	16562.62	0.4683	5772.14	9014.24	0.6403	10001.85	23355.23	0.4282
2003/04	8189.99	16745.48	0.4891	7130.13	13255.50	0.5379	11951.87	24762.02	0.4827
2004/05	10586.17	17186.33	0.6160	10126.06	16274.06	0.6222	12424.52	27844.69	0.4462
2005/06	12922.54	22329.97	0.5787	12776.21	21330.14	0.5990	14642.56	29460.39	0.4970
2006/07	15545.78	27253.39	0.5704	17286.42	27590.84	0.6265	16998.00	33519.14	0.5071
Mean			0.5445			0.6052			0.4723
S.D.			0.0629			0.0405			0.0337
C.V. (%)			11.5533			6.6850			7.1434

[Sources: Annual Report of Concerned Bank, Refer Appendix -6]

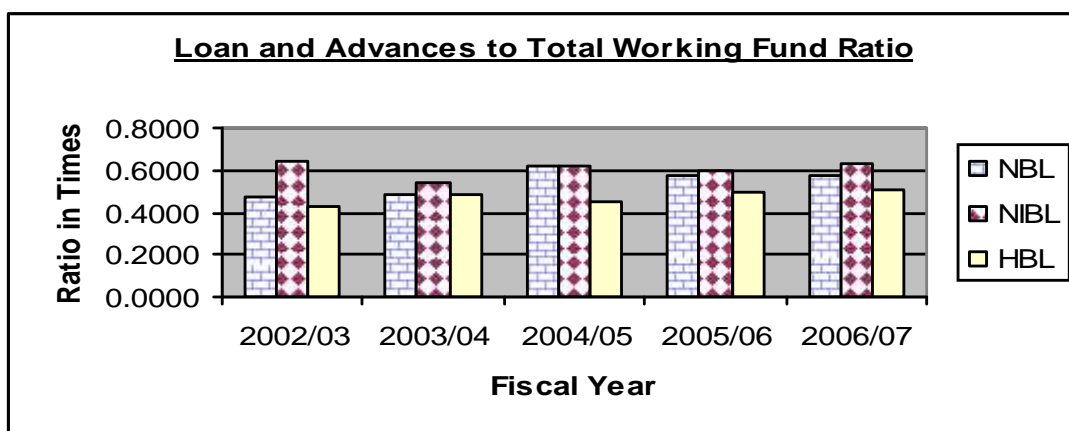
Table 6 reveals that fluctuations in ratio are found during the study period. The ratios of NBL are in increasing trend from 0.4683 in 2002/03 to 0.6160 in 2004/05 with mean ratio of 0.5445. The highest ratio (0.6403) and lowest ratio (0.5379) recorded by NIBL is in year 2002/03 and 2003/04 with mean ratio of 0.6052, which is highest mean ratio among sample banks. Similarly, HBL's ratio is ranged between 0.4282 and 0.5071 in year 2002/03 and 2006/07 respectively.

Therefore NIBL is successful to maintain the higher mean ratio whereas HBL has lowest mean ratio among the sample banks. It means the NBL and NIBL are successful in mobilizing the loan and advance with respect to the total assets (working fund). NIBL are found to be best investor among the sample banks, since it has a higher mean ratio. HBL are failed to maintain the average ratio which indicate that they are not very much successful in mobilizing the loan and advance in compare with sample banks.

Since, NIBL has lowest C.V. 6.6850%, they are able to maintain the consistency in investing in loan and advances from its working fund. HBL also able to maintain

stability to some extent but NBL are failed in comparison to NIBL and HBL. The C.V. of NBL and HBL are 11.5533% and 7.1434% respectively.

Figure - 6



#### 4.1.1.2.4 Investment on Government Securities to Total Deposit Ratio

The main purpose of this ratio is to measure successfulness in mobilizing the deposit in investment on government securities. The investment on government securities to total deposit ratio of different banks in the study period are mentioned in the following table:

Table 7: Investment on Govt. Securities to Total Deposit Ratio

(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Invest. on Govt. Sec.	Total Deposit	Ratio (in times)	Invest. on Govt. Sec.	Total Deposit	Ratio (in times)	Invest. on Govt. Sec.	Total Deposit	Ratio (in times)
2002/03	3588.77	13447.66	0.2669	400.00	7922.75	0.0505	3998.87	21007.37	0.1904
2003/04	3672.63	14119.03	0.2601	2001.10	11524.68	0.1736	3431.73	22010.33	0.1559
2004/05	2413.94	14586.61	0.1655	1948.50	14254.57	0.1367	5469.73	24814.01	0.2204
2005/06	2301.46	19347.40	0.1190	2522.30	18927.31	0.1333	5144.31	26490.85	0.1942
2006/07	4808.35	23342.29	0.2060	3256.40	24488.84	0.1330	6454.87	30048.42	0.2148
Mean			0.2035			0.1254			0.1951
S.D.			0.0629			0.0452			0.0254
C.V. (%)			30.9061			36.0706			13.0375

[Sources: Annual Report of Concerned Bank, Refer Appendix -7]

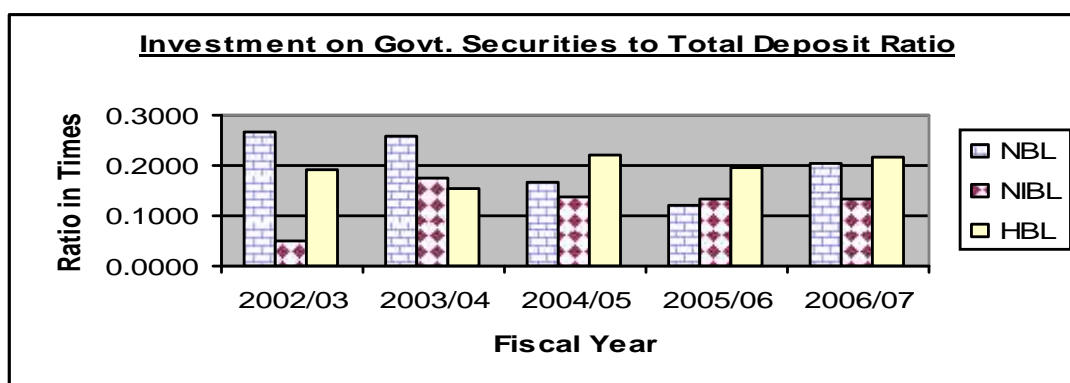
Table 7 reflects that NBL's ratio is decreasing till 2005/06 then increase in 2006/07. Highest ratio (0.2669) registered by HBL is in 2002/03 and lowest ratio (0.1190) is in 2005/06 with mean ratio of 0.2035 which is highest among sample banks. The ratio of NIBL is in fluctuating order which is ranged from 0.0505 in fiscal year 2002/03 and 0.1736 in year 2003/04. The mean ratio of NIBL is 0.1254 which is lowest among sample banks. The mean ratio (0.1951) is registered by HBL with fluctuating ratio



which is ranged from 0.1559 to 0.2204 in year 2003/04 to 2004/05 respectively. Among sample banks NBL is successful in mobilizing the deposit, since it has a higher mean ratio. But NIBL has a lower mean ratio; they are less successful to utilize the deposit in investment on government securities in compare with sample banks. Similarly, HBL is also successful in mobilizing the deposit in investment on government securities.

As Concern with Consistency, NBL and NIBL are failed to maintain the consistency since they have higher C.V. Among sample banks HBL are able to maintain the consistency in mobilization of investment on government securities, which is shown by the lowest CV. (13.0375%).

Figure - 7



#### 4.1.1.2.5 Investment on Government Securities to Total Working Fund Ratio

The investment on govt. securities to total assets ratios of different companies over the study period is presented in the following table below

Table 8: Investment on Govt. Securities to Total Working Fund Ratio

(Rs. in million)

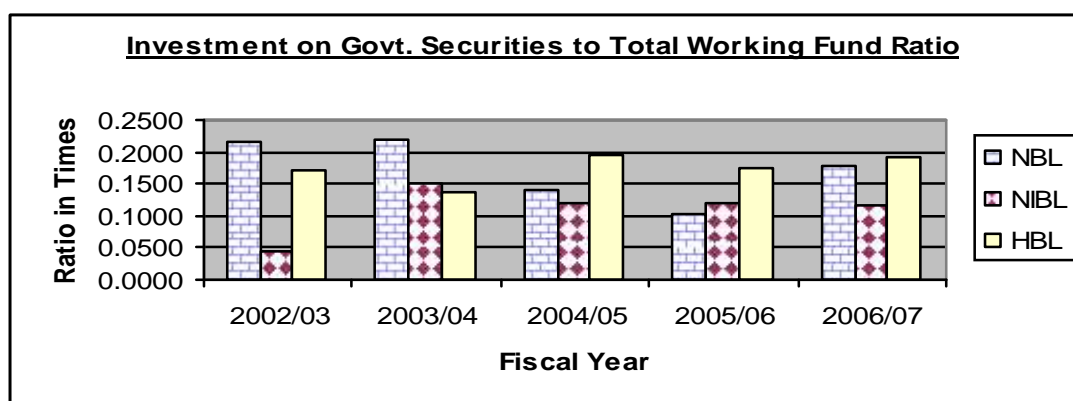
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Invest. on Govt. Sec.	Working Fund	Ratio (in times)	Invest. on Govt. Sec.	Working Fund	Ratio (in times)	Invest. on Govt. Sec.	Working Fund	Ratio (in times)
2002/03	3588.77	16562.62	0.2167	400.00	9014.24	0.0444	3998.87	23355.23	0.1712
2003/04	3672.63	16745.48	0.2193	2001.10	13255.50	0.1510	3431.73	24762.02	0.1386
2004/05	2413.94	17186.33	0.1405	1948.50	16274.06	0.1197	5469.73	27844.69	0.1964
2005/06	2301.46	22329.97	0.1031	2522.30	21330.14	0.1183	5144.31	29460.39	0.1746
2006/07	4808.35	27253.39	0.1764	3256.40	27590.84	0.1180	6454.87	33519.14	0.1926
Mean			0.1712			0.1103			0.1747
S.D.			0.0500			0.0394			0.0230
C.V. (%)			29.2052			35.7370			13.1418

[Sources: Annual Report of Concerned Bank, Refer Appendix -8]

Table 8 reveals that NBL has in fluctuating order in ratio. It has lower ratio (0.1031) in 2005/06 and Higher (0.2193) in 2003/04 with mean ratio of 0.1712. NIBL has increasing order of ratio up to 2003/04 and thereafter ratios are in decreasing order. The ratio is registered as highest ratio in year 2003/04 which is 0.1510 and lowest ratio is 0.0444 in year 2002/03 with mean ratio of 0.1103 which is lowest among sample banks. HBL has also fluctuating order of ratio. The ratio is ranged between 0.1386 and 0.1964 with mean ratio of 0.1747 which is highest among sample banks. This shows that they are successful in mobilizing the investment to the government securities with compare to NBL and NIBL.

The C.V. of NBL, NIBL and HBL are 29.2052%, 35.7370% and 13.1418% which shows that HBL has more consistency than NBL and NIBL since they have a lowest C.V. which means that HBL is more efficient in using government securities. Whereas NBL and NIBL are fail to maintain a consistency in investing in government securities.

Figure - 8



#### 4.1.1.3 Profitability Ratios

The main objective of a bank is to make profit providing different types of services to its customers. Profit is the different between total revenue and total expenses over a period of time. Profit is necessary to survive in any business field for its successful operation and further expansion. Profit is the ultimate out put of a commercial bank and it will have no future if it fails to make sufficient profits. Therefore, the financial manager continuously evaluates the efficiency of the banks in terms of profits. Profitability shows the overall efficiency of the business concerns. To meet those objectives likewise a good liquidity position, meet fixed interest obligation, overcome the future contingencies, grab the investment opportunities, business expansions etc., they must earn sufficient profit. It is an obvious that profitability ratios are the

best indicators of overall efficiency. In this study, mainly those ratios are presented which are related with profit as well as fund mobilization.

Profit measures management's overall effectiveness as shown by the return generated on sales and investment. The relation of the return of the firm to either its sales or equity of its assets is known as profitability ratio. Higher the profitability ratio betters the financial performance of the banks and vice-versa. The following are profitability ratios those are relevant in this study.

#### 4.1.1.3.1 Net Profit to Total Assets Ratio

This ratio is also known as return on total assets (ROA). This ratio is a measuring tool of profitability with respect to each financial resources investment of the assets. If Bank's working fund (total assets) is well managed and utilized efficiently, return on such assets will be higher and vice versa. The following comparative table shows the return on total assets ratio of different Banks recorded over the study period.

Table 9: Net Profit to Total Assets Ratio

(Rs. in million)

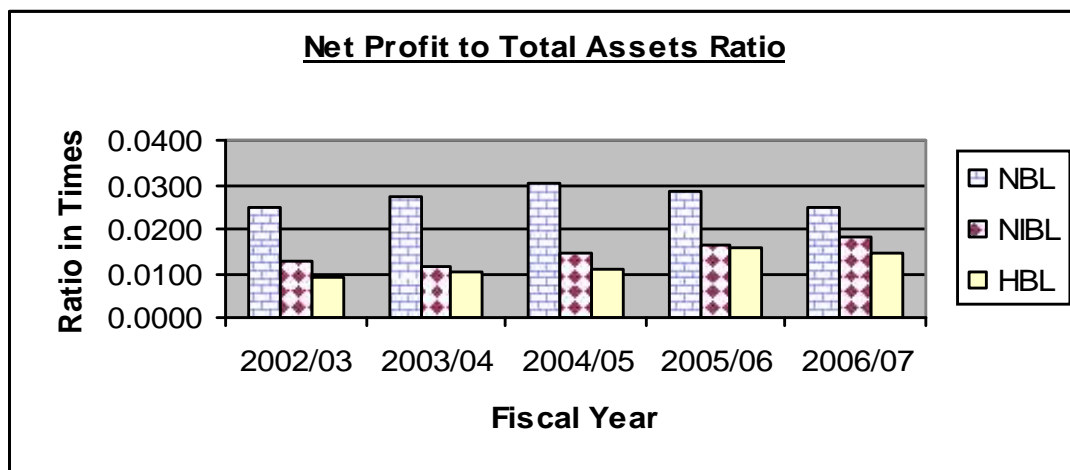
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Net Profit	Total Assets	Ratio (in times)	Net Profit	Total Assets	Ratio (in times)	Net Profit	Total Assets	Ratio (in times)
2002/03	416.24	16562.62	0.0251	116.82	9014.24	0.0130	212.12	23355.23	0.0091
2003/04	455.31	16745.48	0.0272	152.67	13255.50	0.0115	263.05	24762.02	0.0106
2004/05	518.63	17186.33	0.0302	232.15	16274.06	0.0143	308.28	27844.69	0.0111
2005/06	635.26	22329.97	0.0284	350.54	21330.14	0.0164	457.46	29460.39	0.0155
2006/07	673.96	27253.39	0.0247	501.39	27590.84	0.0182	491.82	33519.14	0.0147
Mean			0.0271			0.0147			0.0122
S.D.			0.0023			0.0027			0.0028
C.V. (%)			8.4016			18.1674			22.7053

[Sources: Annual Report of Concerned Bank, Refer Appendix -9]

Table 9 shows that all banks have fluctuating ratio. The ratio of NBL is ranged between 0.0247 and 0.0302 in year 2006/07 and 2004/05 respectively with mean ratio 0.0271. NBL has a highest mean ratio with 0.0271 which determined that NBL are successful in earning the net profit with efficient utilization of total assets with compare to NIBL and HBL. Similarly, NIBL has recorded a highest ratio in 2006/07 which is 0.0182 and lowest ratio is 0.0115 in year 2003/04. Since HBL has lowest mean ratio (0.0122) with ranged between 0.0091 to 0.0155. It is less successful in utilizing the total assets for earning the net profit in compare to sample banks.

But as concern with consistency, NBL are able to maintain the consistency in profit which is shown by lowest CV (8.4016%) among the sample banks. NIBL and HBL have a greater variation in earning the profit on total working fund. The CV of these banks is 18.1674 % and 22.7053 %.

Figure - 9



#### 4.1.1.3.2 Net profit to Total Deposit Ratio.

This ratio is the mirror for banks overall financial performance as well as its success in profit generating, the reason being that the deposits made by its customer's is the major sources of earning of the joint venture banks as the earning is made by the efficiency and effective utilization of these deposits. The following table reveals the percentage of net profit to total deposit of sample banks.

Table 10 : Net Profit to Total Deposit Ratio

(Rs. in million)

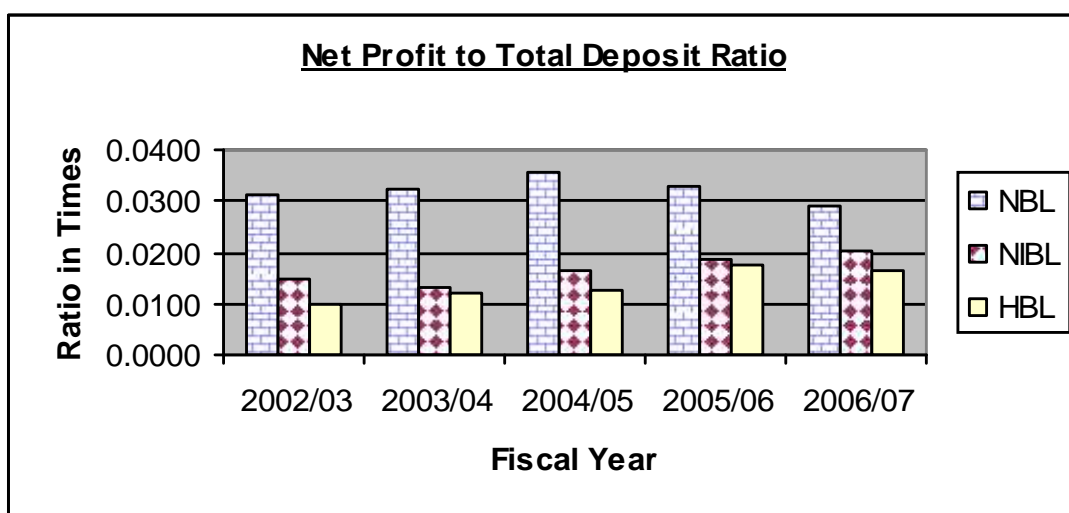
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Net Profit	Total Deposit	Ratio (in times)	Net Profit	Total Deposit	Ratio (in times)	Net Profit	Total Deposit	Ratio (in times)
2002/03	416.24	13447.66	0.0310	116.82	7922.75	0.0147	212.12	21007.37	0.0101
2003/04	455.31	14119.03	0.0322	152.67	11524.68	0.0132	263.05	22010.33	0.0120
2004/05	518.63	14586.61	0.0356	232.15	14254.57	0.0163	308.28	24814.01	0.0124
2005/06	635.26	19347.40	0.0328	350.54	18927.31	0.0185	457.46	26490.85	0.0173
2006/07	673.96	23342.29	0.0289	501.39	24488.84	0.0205	491.82	30048.42	0.0164
Mean			0.0321			0.0167			0.0136
S.D.			0.0025			0.0029			0.0031
C.V. (%)			7.6691			17.3696			22.4745

[Sources: Annual Report of Concerned Bank, Refer Appendix -10]

Table 10 reveals the net profit to total deposit ratio is in fluctuating situation of all sample banks. The ratio of NBL has ranged between 0.0289 in 2006/07 to 0.0356 in 2004/05 with mean ratio of 0.0321 which is highest ratio among the sample banks. The highest and lowest ratios recorded by NIBL are 0.0205 and 0.0132 in year 2006/07 and 2003/04 respectively. Similarly, highest ratio for HBL has recorded in year 2005/06 (0.0173) and lowest ratio in year 2002/03 (0.0101) with mean ratio of 0.0136 which is lowest mean ratio among the sample banks. The above statement indicates that NBL has better performance in utilizing of total deposit to earn a higher profit than other sample banks. Similarly, HBL has not better performance in comparison to NBL and NIBL since they has low mean ratio i.e. 0.0136.

As far as consistency level NBL is successful in maintaining consistency in mobilizing total deposit to earn the profit. This is shown by lowest CV of NBL i.e. 7.6691 % than NIBL (17.3696%) and HBL (22.4745%).

Figure - 10



#### 4.1.1.3.3 Net Profit to Net Worth Ratio

Net Worth or shareholders equity refers to the owners claim on the assets of the bank. It can be found by deducting total liabilities from total assets. This ratio is used to measure the successfulness of earning the profit with respect to the shareholder's equity. The following table presents the net profit to net worth ratio of sample banks.

Table 11 : Net Profit to Net Worth Ratio

(Rs. in million)

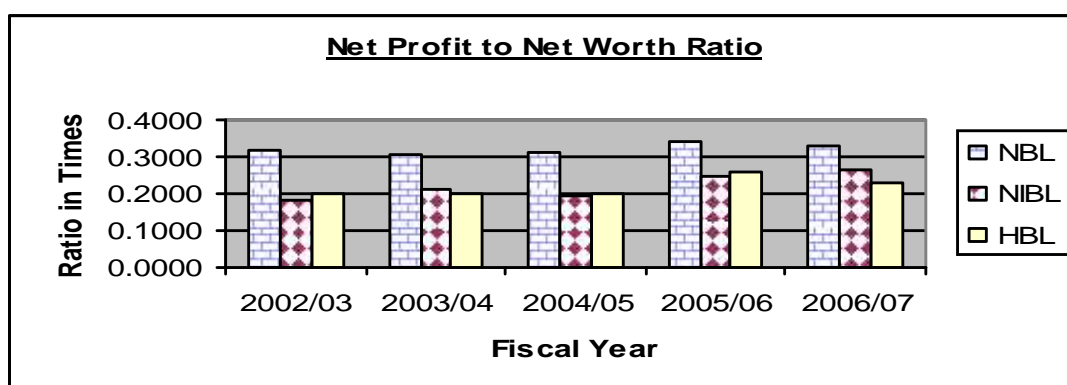
Banks									
Fiscal Year	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Net Profit	Net Worth	Ratio (in times)	Net Profit	Net Worth	Ratio (in times)	Net Profit	Net Worth	Ratio (in times)
2002/03	416.24	1314.18	0.3167	116.82	638.53	0.1830	212.12	1063.14	0.1995
2003/04	455.31	1480.88	0.3075	152.67	729.05	0.2094	263.05	1324.16	0.1987
2004/05	518.63	1657.63	0.3129	232.15	1180.17	0.1967	308.28	1541.75	0.2000
2005/06	635.26	1874.99	0.3388	350.54	1415.43	0.2477	457.46	1766.18	0.2590
2006/07	673.96	2057.05	0.3276	501.39	1878.11	0.2670	491.82	2146.5	0.2291
Mean			0.3207			0.2207			0.2173
S.D.			0.0125			0.0353			0.0267
C.V. (%)			3.9079			16.0090			12.2740

[Sources: Annual Report of Concerned Bank, Refer Appendix -11]

Table 11 reveals the net profit to total deposit ratio are in fluctuating situation for all banks. The ratio of NBL has ranged between 0.3075 in 2003/04 to 0.3388 in 2005/06 with mean ratio of 0.3207 which is highest ratio among the sample banks. The highest and lowest ratios recorded by NIBL are 0.2670 and 0.1830 in year 2006/07 and 2002/03 respectively. Similarly, highest ratio for HBL has recorded in year 2005/06 (0.2590) and lowest ratio in year 2003/04 (0.1987) with mean ratio of 0.2173 which is lowest mean ratio among sample banks. The above statement indicates that NBL has better performance in utilizing of total deposit to earn a higher profit than other sample banks. Similarly, HBL has not better performance in comparison to NBL and NIBL since they has low mean ratio.

As far as consistency level. NBL is successful in maintaining consistency in mobilizing total deposit to earn the profit. This is shown by lowest CV of NBL i.e. 3.9079 %. In contrast NIBL and HBL are less effective to maintain the consistency which is shown by highest CV 16.0090% and 12.2740% respectively.

Figure - 11



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

The ratio shows the earning capacity of a Bank on its total assets (working fund). This ratio exhibits the extent on which banks are successful in mobilizing their working funds to generate income as much as possible. The higher ratio will indicate the high earning power of the banks on its total assets. The following table shows the comparative ratios of Banks for the different periods.

Table 12 : Total Interest Earned to Total Working Fund Ratio

(Rs. in million)

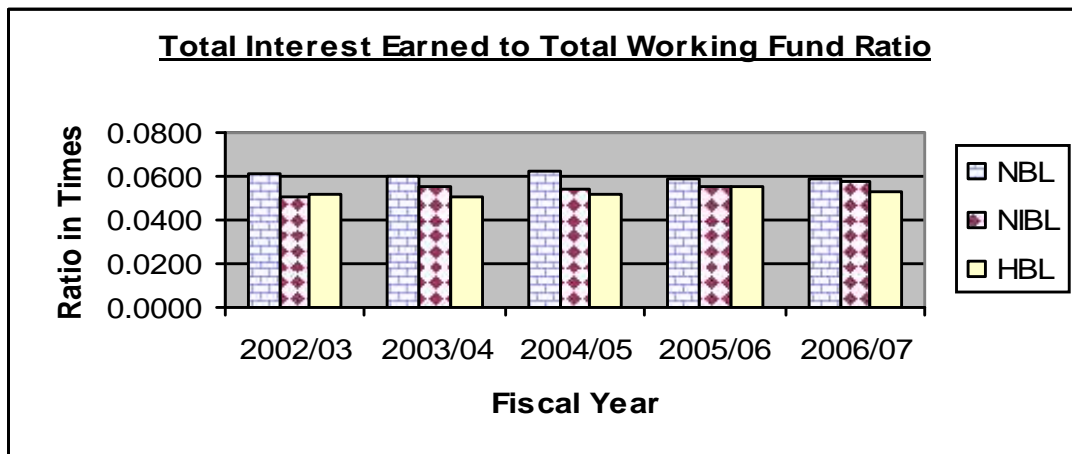
Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Interest Earned	Working Fund	Ratio (in times)	Interest Earned	Working Fund	Ratio (in times)	Interest Earned	Working Fund	Ratio (in times)
2002/03	1017.87	16562.62	0.0615	459.51	9014.24	0.0510	1201.23	23355.23	0.0514
2003/04	1001.62	16745.48	0.0598	731.40	13255.50	0.0552	1245.9	24762.02	0.0503
2004/05	1068.75	17186.33	0.0622	886.80	16274.06	0.0545	1446.47	27844.69	0.0519
2005/06	1310.00	22329.97	0.0587	1172.75	21330.14	0.0550	1626.47	29460.39	0.0552
2006/07	1587.76	27253.39	0.0583	1584.99	27590.84	0.0574	1775.58	33519.14	0.0530
Mean			0.0601			0.0546			0.0524
S.D.			0.0017			0.0023			0.0019
C.V. (%)			2.8490			4.2671			3.5339

[Sources: Annual Report of Concerned Bank, Refer Appendix -12]

Table 12 reveals the total interest earned to total working fund ratio. The entire ratios are in the fluctuating trend throughout the study period. It determined that all sample banks have fluctuating trend of earning the interest every year. The highest ratio of NBL is 0.0622 in year 2004/05 and lowest ratio is 0.0583 in year 2006/07 with highest mean ratio of 0.0601. The ratio of NBL has ranged between 0.0510 in year 2002/03 to 0.0574 in year 2006/07 with mean ratio of 0.0546. Similarly, HBL also has a fluctuating trend. The ratio is ranged between 0.0503 to 0.0552 in year 2003/04 to 2005/06 respectively.

The mean ratio shows that all sample banks are successful in earning the interest on total working fund. Among them NBL found to be a leader in earning a interest with compare to NIBL and HBL. Since NBL has a lowest C.V. (2.8490%) they have a consistency in earning a interest by mobilizing a total working fund effectively. The highest C.V. is found in NIBL with 4.2671% which shows a greater variability in earning an interest.

Figure - 12



#### 4.1.1.3.5 Total Interest Paid to Total Working Fund Ratio

Interest earning is the major source of a commercial bank. The ratio is used to measure the percentage of total interest expenses against the total assets. The following are the comparative ratio figures of Banks recorded in different periods.

Table 13 : Total Interest Paid to Total Working Fund Ratio

(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Interest Paid	Working Fund	Ratio (in times)	Interest Paid	Working Fund	Ratio (in times)	Interest Paid	Working Fund	Ratio (in times)
2002/03	317.35	16562.62	0.0192	189.21	9014.24	0.0210	554.13	23355.23	0.0237
2003/04	282.95	16745.48	0.0169	326.20	13255.50	0.0246	491.54	24762.02	0.0199
2004/05	243.54	17186.33	0.0142	354.55	16274.06	0.0218	561.96	27844.69	0.0202
2005/06	357.16	22329.97	0.0160	490.95	21330.14	0.0230	648.84	29460.39	0.0220
2006/07	555.71	27253.39	0.0204	685.53	27590.84	0.0248	767.41	33519.14	0.0229
Mean			0.0173			0.0230			0.0217
S.D.			0.0025			0.0017			0.0017
C.V. (%)			14.3372			7.3593			7.7542

[Sources: Annual Report of Concerned Bank, Refer Appendix -13]

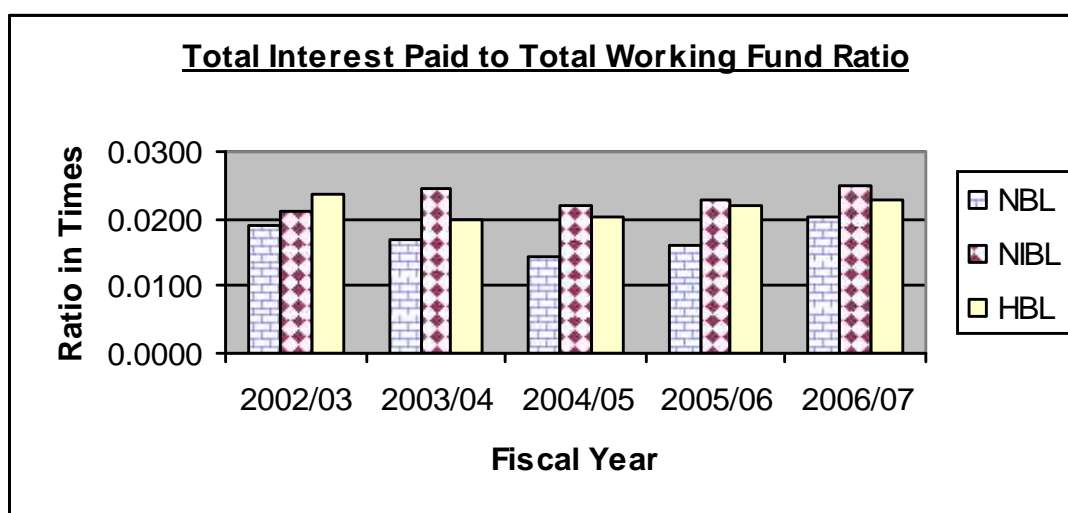
Table 13 shows the comparative analysis of total interest paid to total working fund. All the ratios are in fluctuating trend. The highest and lowest ratio of NBL are 0.0204 and 0.0142 in fiscal year 2006/07 and 2004/05 respectively with mean ratio of 0.0173 which is lowest mean ratio among sample banks. The highest and lowest ratios of NIBL are 0.0248 and 0.0210 with mean ratio of 0.0230. Similarly, HBL has a fluctuating ratio which is ranged between 0.0199 in 2003/04 and 0.0237 in 2002/03.



The above definition determined that NIBL has paid a higher interest on working fund in compare to NBL and HBL which is shown by highest mean ratio.

NIBL has consistency in interest paid because C.V. of NIBL is lowest among sample banks which is 7.3593%. The C.V. NBL and HBL are 14.3372 % and 7.7542 % respectively.

Figure - 13



#### 4.1.1.4 Leverage Ratios

A firm should have strong short- term as well as long -term financial position. Like other ratios, leverage ratio is also very necessarily important tool in measuring financial performance of any institution. This ratio reveals the proportion of funds used by the institution either from the creditor's side or form owner side. In order to maintain healthy financial position any institutions need to maintain proper proportion of debt & equity. These ratios indicate the situation of the capital structure, which is calculated to measure the company's ability of using debt for benefit of shareholders. Long- term creditors like debenture holders, financial institutions etc. are more interested to the firm's long term financial health, debt serving capacity and strength and weakness of the concerns. This ratio may be calculated from the balance sheet items to determine the proportion of debt in total financing. In summary debt ratio tell us the relative proportions of capital of contribution by creditors and by owners.

Leverage ratio is also called solvency ratio or capital structure ratio. There are various tools in order to measure leverage of the institution among them. Debt Asset ratio & Debt Equity ratio has been used.

#### 4.1.1.4.1 Debt-Asset Ratio

It measures proportion of the creditor's funds used by the institution to acquire the assets. The increased proportion of debt indicated the risky ness or burden to the institution. The debt is considering more risky and cheap source of financing. Risky in the sense that the debt financing needs regular payment of interest in any condition of economic. The debt asset ratios of sample banks are as below:

Table 14 : Debt- Asset Ratio

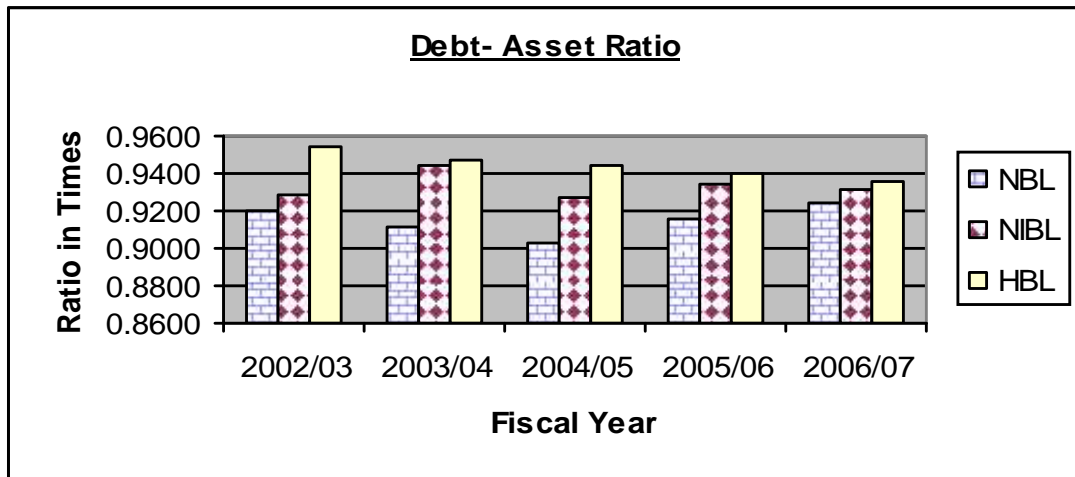
(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Total Debt	Total Assets	Ratio (in times)	Total Debt	Total Assets	Ratio (in times)	Total Debt	Total Assets	Ratio (in times)
2002/03	15248.44	16562.62	0.9207	8375.71	9014.24	0.9292	22292.09	23355.23	0.9545
2003/04	15264.60	16745.48	0.9116	12526.45	13255.50	0.9450	23437.86	24762.02	0.9465
2004/05	15528.7	17186.33	0.9035	15093.89	16274.06	0.9275	26302.94	27844.69	0.9446
2005/06	20454.98	22329.97	0.9160	19914.71	21330.14	0.9336	27694.21	29460.39	0.9400
2006/07	25196.34	27253.39	0.9245	25712.73	27590.84	0.9319	31372.64	33519.14	0.9360
Mean			0.9153			0.9334			0.9443
S.D.			0.0082			0.0069			0.0070
C.V. (%)			0.8914			0.7379			0.7418

[Sources: Annual Report of Concerned Bank, Refer Appendix -14]

Table 14 shows that debt financing ratio of all sample banks are high. The ratio of NBL and NIBL are fluctuating and HBL's ratio is in decreasing trend. The highest ratio of NBL is 0.9245 in 2006/07 and lowest is 0.9035 with mean ratio of 0.9153 which is lowest mean ratio among the sample banks. The ratio of NIBL is ranged between 0.9275 and 0.9450 in year 2004/05 and 2003/04 respectively. Similarly, HBL have highest ratio in year 0.9545 in year 2002/03 and lowest ratio in year 0.9360 in year 2006/07 with mean ratio of 0.9443. HBL has a highest mean ratio with 0.9443 among sample banks. The C.V. of NBL, NIBL and HBL are 0.8914%, 0.7379% and 0.7418%. Above statement conclude that the debt financing of NBL in assets is lowest and highest in HBL. Therefore HBL is utilizing a highest debt among the sample banks. Even though NIBL use less proportion of debt financing with compare to HBL, NIBL successful in maintaining a consistency which is shown by lowest C.V. (0.7379) among sample banks.

Figure - 14



#### 4.1.1.4.2 Debt-Equity Ratio

The Debt Equity ratio implies the debt equity proportion used by the institution. High Debt Equity ratio indicated more used of money from creditors side and vice versa. High Debt Equity ratio considered good if the institution is able have higher return than the cost paid on debt.

Table 15 : Debt- Equity Ratio

(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Total Debt	Total Equity	Ratio (in times)	Total Debt	Total Equity	Ratio (in times)	Total Debt	Total Equity	Ratio (in times)
2002/03	15248.44	1314.18	11.6030	8375.71	638.53	13.1172	22292.09	1063.14	20.9682
2003/04	15264.60	1480.88	10.3078	12526.45	729.05	17.1819	23437.86	1324.16	17.7002
2004/05	15528.7	1657.63	9.3680	15093.89	1180.17	12.7896	26302.94	1541.75	17.0604
2005/06	20454.98	1874.99	10.9094	19914.71	1415.43	14.0697	27694.21	1766.18	15.6803
2006/07	25196.34	2057.05	12.2488	25712.73	1878.11	13.6907	31372.64	2146.5	14.6157
Mean			10.8874			14.1698			17.2050
S.D.			1.1192			1.7554			2.4216
C.V. (%)			10.2797			12.3880			14.0750

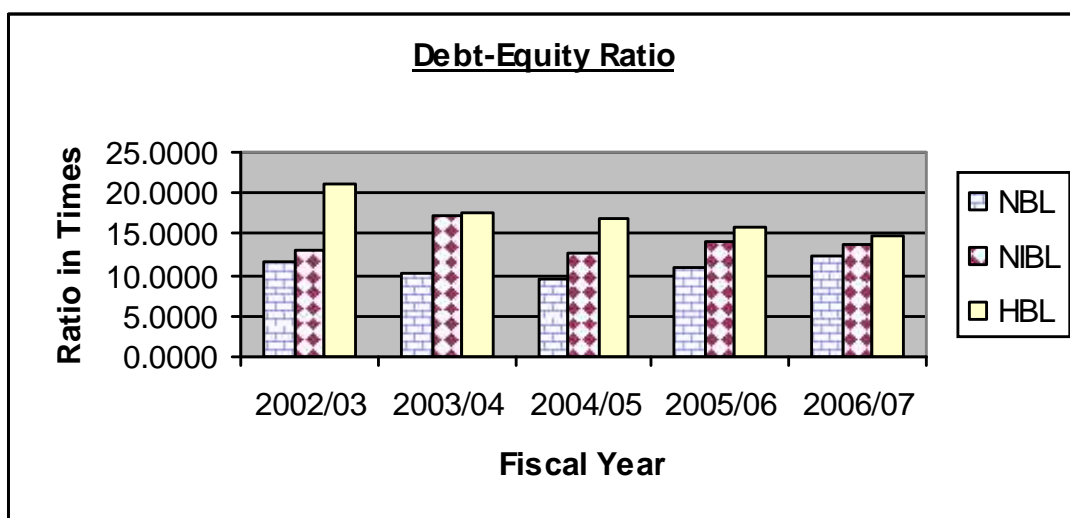
[Sources: Annual Report of Concerned Bank, Refer Appendix -15]

Table 15 shows that the ratio of NBL is in fluctuating mode. The highest ratio is recorded in year 2006/07 (12.2488) and lowest ratio is recorded in year 2004/05 (9.3680) with mean ratio of 10.8874 which is lowest among the sample banks. It declared that NBL has lowest debt cost and higher investment from equity fund. In the same way the ratio of NIBL is also in fluctuating trend. It has ratio ranged

between 12.7896 (2004/05) to 17.1819 (2003/04) with mean ratio of 14.1698. The ratio of HBL is in decreasing mode. The ratio is ranged between 14.6157 in year 2006/07 to 20.9682 in year 2002/03 with highest mean ratio 17.2050. Since highest mean ratio is recorded by HBL, they have more investment from debt than equity fund which cost a higher than equity. Higher debt investment brings a higher cost to the banks.

The C.V. of NBL, NIBL and HBL are 10.2797%, 12.3880% and 14.0750%. Therefore NBL has lowest C.V. which defined that NBL has consistency in debt-equity ratio. NIBL also has maintained stability to some extent. But HBL is not very successful as NIBL and NBL to maintain a consistency.

Figure - 15



#### 4.1.1.5 Capital Adequacy Ratios

Capital Adequacy ratio indicates strength of capital base of the institution. Capital refers to paid up capital, general reserve and unpaid profit. A high or low capital adequacy ratio is undesirable items of lower return or lowered solvency respectively. Therefore appropriate capital adequacy is needed but it is a controversial matter. The capital adequacy ratios of the sampled banks are as follows:

##### 4.1.1.5.1 Shareholder's Fund to Total Deposit Ratio

Shareholder's fund to total deposit ratio shows how well bank are maintain sufficient amount as shareholder's fund is comparison to the amount of the total deposit.

Table 16 : Shareholder's Fund to Total Deposit Ratio

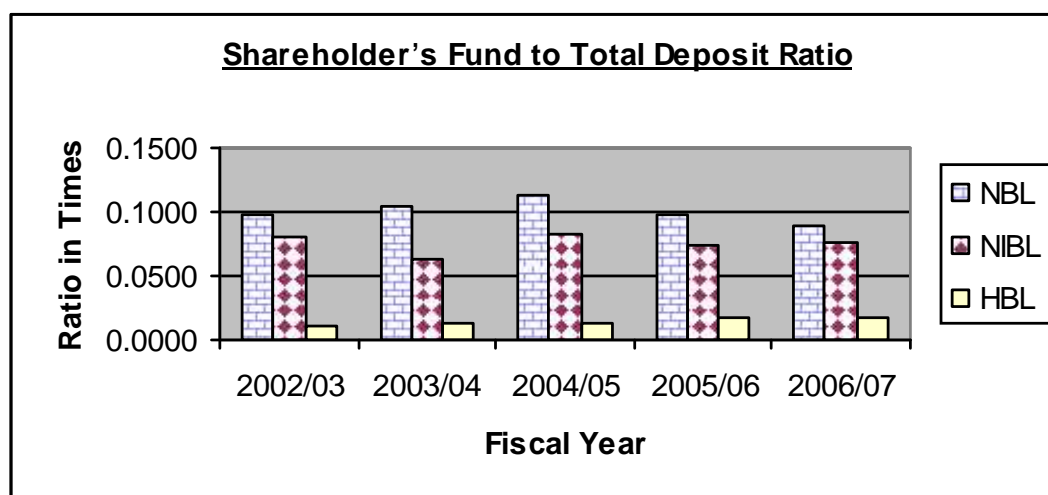
(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Net Worth	Total Deposit	Ratio (in times)	Net Worth	Total Deposit	Ratio (in times)	Net Profit	Total Deposit	Ratio (in times)
2002/03	1314.18	13447.66	0.0977	638.53	7922.75	0.0806	212.12	21007.37	0.0101
2003/04	1480.88	14119.03	0.1049	729.05	11524.68	0.0633	263.05	22010.33	0.0120
2004/05	1657.63	14586.61	0.1136	1180.17	14254.57	0.0828	308.28	24814.01	0.0124
2005/06	1874.99	19347.40	0.0969	1415.43	18927.31	0.0748	457.46	26490.85	0.0173
2006/07	2057.05	23342.29	0.0881	1878.11	24488.84	0.0767	491.82	30048.42	0.0164
Mean			0.1003			0.0756			0.0136
S.D.			0.0096			0.0076			0.0031
C.V. (%)			9.5321			10.0448			22.4745

Table 16 shows the capital adequacy ratio of all sample banks are fluctuating. The highest ratio of NBL is registered in year 2004/05 (0.1136) and lowest ratio is registered in year 2006/07 (0.0881). Similarly, the highest ratio and lowest ratio of NIBL are in year 2004/05 (0.0828) and 2003/04 (0.0633). The ratio of HBL is ranged between the 0.0101 in year 2002/03 to 0.0173 (2005/06). The mean ratio of NBL, NIBL and HBL are 0.1003, 0.0756 and 0.0136. The highest and lowest mean ratio is registered by NBL and HBL respectively. Since, NBL has highest mean ratio which indicates that capital base of bank is strongest among sample banks.

In the same way C.V. of NBL, NIBL and HBL are 9.5321%, 10.0448% and 22.4745%. Therefore stability in capital strength is found in only NBL. HBL has less consistency in maintaining a capital strength which is indicated by highest C.V. among sample banks.

Figure - 16



#### 4.1.1.5.2 Shareholder's Fund to Total Assets Ratio

This ratio is concerned with the sufficiency of shareholders fund against the total assets. Generally this ratio measures the relative claims of owners of the bank over its assets. A high ratio indicates that out of total assets shareholders have more controlled, owner command and vice-versa.

Table 17 : Shareholder's Fund to Total Assets Ratio

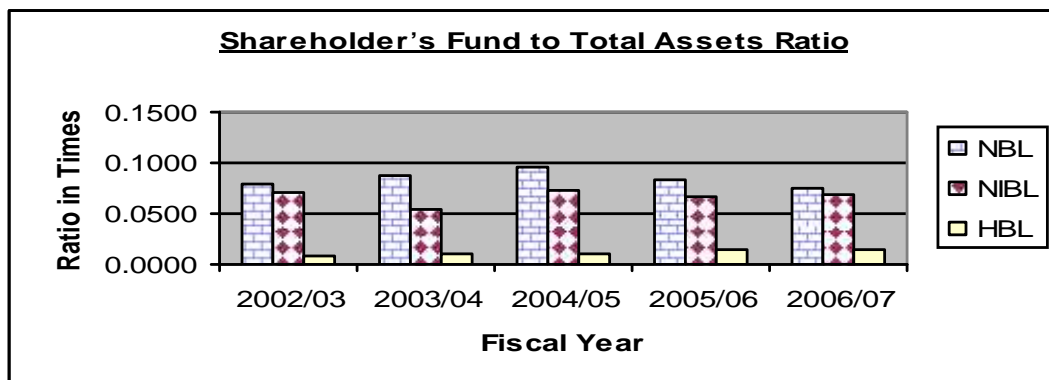
(Rs. in million)

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Net Worth	Total Assets	Ratio (in times)	Net Worth	Total Assets	Ratio (in times)	Net Profit	Total Assets	Ratio (in times)
2002/03	1314.18	16562.62	0.0793	638.53	9014.24	0.0708	212.12	23355.23	0.0091
2003/04	1480.88	16745.48	0.0884	729.05	13255.50	0.0550	263.05	24762.02	0.0106
2004/05	1657.63	17186.33	0.0965	1180.17	16274.06	0.0725	308.28	27844.69	0.0111
2005/06	1874.99	22329.97	0.0840	1415.43	21330.14	0.0664	457.46	29460.39	0.0155
2006/07	2057.05	27253.39	0.0755	1878.11	27590.84	0.0681	491.82	33519.14	0.0147
Mean			0.0847			0.0666			0.0122
S.D.			0.0082			0.0069			0.0028
C.V. (%)			9.6284			10.3484			22.7053

[Sources: Annual Report of Concerned Bank, Refer Appendix -17]

Table 17 shows that the control over total assets by shareholder's fund is high in NBL which is shows by highest mean ratio. The ratio of NBL is ranged between 0.0755 in year 2006/07 to 0.0965 in year 2004/05 with mean ratio of 0.0847. Similarly, ratio of NIBL is in fluctuating trend. The ratio is ranged between 0.0550 (2003/04) to 0.0708 (2002/03) with mean ratio 0.0666. Therefore NIBL has less control over assets by shareholder's fund in compare to other sample banks. The ratio of HBL is in increasing trend from 2002/03 year and decreasing in 2006/07. The highest and lowest ratio is 0.0155 in 2005/06 and 0.0091 in 2002/03 respectively with mean ratio of 0.0122. Since NBL has lowest C.V. (9.6284%) it has more consistency than NIBL and HBL whose C.V. are 10.3484% and 22.7053% respectively.

Figure - 17



#### 4.1.1.6 Growth Ratio of Net Profit, Earning Per Share and Dividend Per Share

Table 18: Growth Ratio of Net Profit, Earning Per Share and Dividend Per Share Ratio

<b>Banks</b>									
	<b>Nabil Bank Limited</b>			<b>Nepal Investment Bank Limited</b>			<b>Himalayan Bank Limited</b>		
	<b>Fiscal Year</b>	<b>Fiscal Year</b>	<b>Growth Rate</b>	<b>Fiscal Year</b>	<b>Fiscal Year</b>	<b>Growth Rate</b>	<b>Fiscal Year</b>	<b>Fiscal Year</b>	<b>Growth Rate</b>
	<b>2002/03</b>	<b>2006/07</b>	<b>(in %)</b>	<b>2002/03</b>	<b>2006/07</b>	<b>(in %)</b>	<b>2002/03</b>	<b>2006/07</b>	<b>(in %)</b>
Net Profit	416.24	673.96	10.12	116.82	501.39	33.82	212.12	491.82	18.32
EPS	84.66	137.08	10.12	39.56	62.57	9.60	49.25	60.66	4.26
DPS	50.00	140.00	22.87	20.00	30.00	8.45	25.00	40.00	9.86

[Sources: Annual Report of Concerned Bank]

Table 18 shows that growth ratio for the study period in NBL remained 10.12%, 10.12%, and 22.87 % respectively for Net profit, EPS and DPS where as in NIBL these appeared 33.82%, 9.60% and 8.45% correspondingly. Similarly, HBL's growth ratio of Net Profit, EPS and DPS are 18.32%, 4.26% and 9.86% respectively.

The above results shows that NIBL is found to be best from point of view of net profit, since they has highest growth rate among sample banks. NBL is less successful than NIBL and HBL in increasing a net profit. HBL also has satisfied growth rate of net profit. In the same way NBL has a highest growth rate in EPS among sample banks. This defined that their EPS are higher than HBL and NIBL. Since NBL's growth rate of EPS is in positive it has increasing trend of EPS. Similarly, NIBL and HBL also have a positive growth rate which makes a conclusion of increment in EPS of banks. NBL has highest positive growth rate of DPS among sample banks. This defined that NBL has distribute the much dividend than NIBL and HBL. Similarly NIBL and HBL has also positive growth rate. NIBL, HBL has also distributed dividend but lower than NBL

## 4.1.2 Statistical Analysis

This chapter includes some statistical analysis such as Karl Pearson's coefficient of correlation, simple regression analysis and trend line analysis, which are used to analyze the data to achieve the objective of the study.

### 4.1.2.1 Coefficient of Correlation Analysis (r)

This tool is used to predict the relationship between deposits and loans & advances, net profit and outside assets and deposits and total investment. Under this study, Karl Pearson's coefficient of correlation is being used.

#### 4.1.2.1.1 Coefficient of Correlation between deposits and loans & advances

Deposit is the main tool for developing the banking performance of the banks. Likewise loans and advances are the key part to mobilize the collected deposits. The coefficient of correlation between deposits and loans & advances measures the degree of relationship between these two variables. For this study, deposit is taken as independent variable (x) and loans & advances are dependent variables (y). The purpose of computing 'r' between these two variables is to justify whether deposits are significantly used as loans and advances in proper way or not.

Table 19: Coefficient of Correlation between Deposits and Loan & Advance

(Rs.in million)

Banks						
	Nabil Bank Limited		Nepal Investment Bank Limited		Himalayan Bank Limited	
Fiscal Year	Total Deposit (x)	Loan & Advances (y)	Total Deposit (x)	Loan & Advances (y)	Total Deposit (x)	Loan & Advances (y)
2002/03	13447.66	7755.95	7922.75	5772.14	21007.37	10001.85
2003/04	14119.03	8189.99	11524.68	7130.13	22010.33	11951.87
2004/05	14586.61	10586.17	14254.57	10126.06	24814.01	12424.52
2005/06	19347.40	12922.54	18927.31	12776.21	26490.85	14642.56
2006/07	23342.29	15545.78	24488.84	17286.42	30048.42	16998.00
r	0.9672		0.9940		0.9745	
r <sup>2</sup>	0.9354		0.9880		0.9497	
PE.r	0.0195		0.0036		0.0152	
6PE.r	0.1168		0.0218		0.0910	
Level of Significant	Significant		Significant		Significant	

[Sources: Annual Report of Concerned Bank, Refer Appendix -18]



The coefficient of correlation (r) for all the sampled banks found to be almost '1' which indicates there is proportion relationship between the deposits & loan & advance for all the banks. While testing 6P.E.r for all sample banks found to be significant as the r value for all the banks are greater than 6P.E.r which implies that there found to be perfect correlation between the deposits and loan & advances. It shows that the loan and advances is depends upon the deposit and all sample banks are successful in mobilizing the deposit to loan and advances efficiently.

#### 4.1.2.1.2 Coefficient of Correlation between deposits and Investment

Investment is also a measures part of banks to mobilize the collected deposit. By investing in different profitable area like shares and debenture, government securities banks maximize the profit. Therefore it is important to study the relation between the deposit and investment. For this analysis deposit is taken as independent variable (x) and investment (y) is taken as dependent variable. This analysis measures the degree of relationship between these two variables. Besides this, it will justify whether the deposits are significantly used in proper way or not and whether there is any relationship in between these two components. The following table exhibits the coefficient of correlation (r) between deposits and total investment, coefficient of determination (r<sup>2</sup>), probable error P.E.r.

Table 20 : Coefficient of Correlation between Deposits and Investment

(Rs. in million)

Fiscal Year	Banks					
	Nabil Bank Limited		Nepal Investment Bank Limited		Himalayan Bank Limited	
	Total Deposit (x)	Investment (y)	Total Deposit (x)	Investment (y)	Total Deposit (x)	Investment (y)
2002/03	13447.66	3588.77	7922.75	400.00	21007.37	3998.87
2003/04	14119.03	3672.63	11524.68	2001.10	22010.33	3431.73
2004/05	14586.61	2413.94	14254.57	1948.50	24814.01	5469.73
2005/06	19347.40	2301.46	18927.31	2522.30	26490.85	5144.31
2006/07	23342.29	4808.35	24488.84	3256.40	30048.42	6454.87
r	0.4136		0.9305		0.9244	
r <sup>2</sup>	0.1711		0.8659		0.8545	
PE.r	0.2500		0.0404		0.0439	
6PE.r	1.5002		0.2427		0.2633	
Level of Significant	Insignificant		Significant		Significant	

[Sources: Annual Report of Concerned Bank, Refer Appendix -19]

The coefficient of correlation for all the sampled banks are found to be positive which indicates that there is positive and perfect relationship between the deposits & investments for all the sample banks. While testing 6P.E.r for Nabil banks, it is found to be Insignificant as the r value of Nabil bank is smaller than 6P.E.r. This shows that the bank is unsuccessful to use the deposit in proper way. In case of NIBL and HBL, it is found to be significant as r value is greater than 6P.E.r. This shows that NIBL and HBL are successful investment with respect to deposit. These bank's investment is depends upon the deposit.

#### 4.1.2.1.3 Coefficient of Correlation between Investment & Net profit

Following table shows the relation between the investment and net profit. As we say in above investment is done in different profitable area to maximize the profit. Net profit is the key to survive the banks. Without profit banks cannot sustain in the market. Therefore it is necessary to measures the degree of relationship between these two variable. For this study, Investment (x) is taken as independent variable and net profit (y) is taken as dependent variable. The following table shows the coefficient of correlation between(r), coefficient of determinants ( $r^2$ ) and probable error P.E.r on investment and net profit of banks.

Table 21 : Coefficient of Correlation between Investment and Net Profit

(Rs.in million)

Banks						
	Nabil Bank Limited		Nepal Investment Bank Limited		Himalayan Bank Limited	
Fiscal Year	Investment (x)	Net Profit (y)	Investment (x)	Net Profit (y)	Investment (x)	Net Profit (y)
2002/03	3588.77	416.24	400.00	116.82	3998.87	212.12
2003/04	3672.63	455.31	2001.10	152.67	3431.73	263.05
2004/05	2413.94	518.63	1948.50	232.15	5469.73	308.28
2005/06	2301.46	635.26	2522.30	350.54	5144.31	457.46
2006/07	4808.35	673.96	3256.40	501.39	6454.87	491.82
r	0.1270		0.8785		0.8077	
$r^2$	0.0161		0.7718		0.6524	
PE.r	0.2968		0.0688		0.1048	
6PE.r	1.7807		0.4131		0.6290	
Level of Significant	Insignificant		Significant		Significant	

[Sources: Annual Report of Concerned Bank, Refer Appendix -20]

The coefficient of correlation for all the sampled banks found to be almost '1' which indicates that there is proportion relationship between the investment & net profit for

all the sample banks. While testing 6P.E.r for NIBL and HBL found to be significant as the r value of these banks are greater than 6P.E.r which implies there is perfect correlation between the Investment and net profit. While testing 6P.E.r for NBL found to be insignificant as the r value of the bank is smaller than 6P.E.r which implies that NBL is weak in earning the net profit through the investment whereas NIBL and HBL are successful to earn net profit by mobilizing the deposit to the investment.

#### 4.1.2.1.4 Coefficient of Correlation between Loan and advances & Net profit

Loan and advances also plays a vital role in earning the profit. By mobilizing the deposit in loan & advances banks earns the profit. So, it is necessary to study the relation between these two variable loan & advances and net profit. Following table shows the coefficient of correlation(r), coefficient of determinants ( $r^2$ ) and probable error PE.r of loan & advances and net profit of sample banks. For this study loan and advances (x) is taken as independent variable and net profit (y) is taken as dependent variable

Table 22 : Coefficient of Correlation between Loan and Advances and Net Profit

(Rs.in million)

Fiscal Year	Banks					
	Nabil Bank Limited		Nepal Investment Bank Limited		Himalayan Bank Limited	
	Loan & Advances (x)	Net Profit (y)	Loan & Advances (x)	Net Profit (y)	Loan & Advances (x)	Net Profit (y)
2002/03	7755.95	416.24	5772.14	116.82	10001.85	212.12
2003/04	8189.99	455.31	7130.13	152.67	11951.87	263.05
2004/05	10586.17	518.63	10126.06	232.15	12424.52	308.28
2005/06	12922.54	635.26	12776.21	350.54	14642.56	457.46
2006/07	15545.78	673.96	17286.42	501.39	16998.00	491.82
r	0.9832		0.9967		0.9695	
$r^2$	0.9668		0.9934		0.9399	
PE.r	0.0100		0.0020		0.0181	
6PE.r	0.0602		0.0120		0.1088	
Level of Significant	Significant		Significant		Significant	

[Sources: Annual Report of Concerned Bank, Refer Appendix -21]

The coefficient of correlation for all the sampled banks found to be almost '1' which indicates there is proportion relationship between the loan & advance and net profit for all the banks. While testing 6P.E.r for all sample banks found to be significant as the r value for all the banks are greater than 6P.E.r which implies that there found to

be perfect correlation between the Loan & advance and net profit. It shows that all sample banks are successful in earning the net profit by mobilizing the loan and advances.

#### 4.1.2.2 Simple Regression Analysis

Regression Analysis is useful tool in statistical analysis which shows how the variables are related. In regression analysis one variable is considered to be unknown and other to be known variable. From the known variable we can estimate the value of unknown variable. So, Regression is said to be measures of average relationship between two or more variables in terms of the original units of the data. For the study we confined to only two variables and this kind of regression is called simple regression. "Simple" because there is only one independent variable and liner" because the relationship between the independent and dependent variable is assumed to be linear.

##### 4.1.2.2.1 Regression Analysis between Net Profit and Total Deposit

The main point of this analysis is to determine the relation between net profit and total deposit. Obviously, it seems that as total deposit increases the net profit of the banks need to increase. So, in this analysis net profit is considered to be dependent variable and total deposit as independent variable. The relation between net profit and total deposit can be present mathematically as below:

$$N.P. = a + b T.D.$$

Where,

N.P. = Net Profit

T.D. = Total Deposit

Table 23: Regression Analysis between Net Profit and Total Deposit

S.No.	Banks	Intercept (a)	Regression Coefficient (b)	r	T-stat
1	Nabil Bank Limited	116.4682	0.0250	0.9503	5.29 *
2	Nepal Investment Bank Limited	-100.894	0.0241	0.9920	13.58 *
3	Himalayan Bank Limited	-454.5470	0.0322	0.9538	5.5 *

[Sources: Annual Report of Concerned Bank, Refer Appendix -22]

Note: \* represents that results are significant at 5 percent level of significant

Table 23 exhibits the estimation of net profit on the basis of the total deposit. The regression coefficient of net profit and total deposit for all the sampled banks are positive which determine that increase in the total deposit ultimately increases Net Profit for each sampled banks. The coefficient correlation found to be almost near by “1”. The coefficient correlation found to be highest in case of NIBL almost near by ‘1’ which indicates proportionate change in net profit as increase or decrease in Total Deposit for the bank. In case of t-test variables of all sample bank was significance at 5% level of significant. This shows that there was high correlation between net profit and total deposit in case of all sample banks.

#### 4.1.2.2.2 Regression Analysis between Net Profit and Loan & Advances

This analysis determines the relation between net profit and loan & advances. As loan & advances increases the net profit of the banks need to increase. So, in this analysis net profit is considered to be dependent variable and loan & Advances as independent variable. The relation between net profit and loan & deposit can be present mathematically as below:

$$N.P. = a + b LA$$

Where,

N.P. = Net Profit

L.A. = Loan & Advances

Table 24: Regression Analysis between Net Profit and Loan & Advances

S.No.	Banks	Intercept (a)	Regression Coefficient (b)	r	T-stat
1	Nabil Bank Limited	116.4682	0.0250	0.9832	9.34 *
2	Nepal Investment Bank Limited	-100.894	0.0241	0.9967	21.23 *
3	Himalayan Bank Limited	-454.5470	0.0322	0.9695	6.85 *

[Sources: Annual Report of Concerned Bank, Refer Appendix -23]

Note: \* represents that results are significant at 5 percent level of significant

Table 24 gives a competitive result of regression analysis for all sample banks. Regression coefficient of net profit and loan and advances for all the sampled banks are positive which determine that increase in the loan and advances ultimately increases net profit for each sampled banks. The coefficient correlation found to be highest in case of NIBL almost near by ‘1’ which indicates proportionate change in

net profit as increase or decrease in loan and advances for the bank. HBL has registered the lowest correlation (r) between loan and advances and net profit in respect to other sampled banks.

While testing the hypothesis on the basis of t-test the variables of all sample banks are got significance at 5% level. This shows that there was high correlation between net profit and loan and advances of all sample banks.

#### 4.1.2.2.3 Regression Analysis between Net profit and Investment

This analysis determines the relation between net profit and Investment. As Investment increases the net profit of the banks need to increase. So, in this analysis net profit is considered to be dependent variable and Investment as independent variable. The relation between net profit and Investment can be present mathematically as below:

$$N.P. = a + b I$$

Where,

N.P. = Net Profit

I. = Investment

Table 25: Regression Analysis between Net Profit and Investment

S.No.	Banks	Intercept (a)	Regression Coefficient (b)	r	T-stat
1	Nabil Bank Limited	493.7282	0.0137	0.1270	0.22
2	Nepal Investment Bank Limited	4.5261	0.1314	0.8785	3.19 *
3	Himalayan Bank Limited	-56.7649	0.0823	0.8077	2.37

[Sources: Annual Report of Concerned Bank, Refer Appendix -24]

Note: i) \* represents that results are significant at 5 percent level of significant.

Table 25 represents the regression analysis between the net profit and investment. The regression coefficient of net profit and investment for all the sampled banks are positive which indicate that increase in the investment ultimately increases net profit for each sampled banks. The coefficient correlation found to be highest in case of NIBL almost near by '1' which indicates proportionate change in net profit as increase or decrease in investment for the bank. NBL has registered lowest correlation (r) in respect to other sampled banks.

Since NIBL has higher calculated value than t-test table value it has got significant at 5 % level while testing the Hypothesis. The other two sample banks didn't get the significance between net profit and investment. This represents that there is a high correlation between the net profit and Investment for NIBL and low correlation for NBL and HBL.

#### **4.1.2.3. Trend Line Analysis**

Among the various methods of determining trend of time series, the most popular and mathematical method is the least square method. Using this method of least square in the study, it has been tried to analyze the trend of prospective net profit in future by analyzing the trend of past net profit of the banks. Banks utilized the deposit by releasing investment in loan and advances in different profitable area for maximizing the profit. A bank can invest in shares & debenture, government securities and provide the loan and advances under different scheme.

This topic will be used to forecast the ratios of Total deposit, Total Loan and Advances, Total Investment and Net Profit of the banks for next five years on the base of past five years. The analysis is done under limited factors which are as follows:

- ) The economy will remain unchanged as of present the stage.
- ) Banks will run as of present position.
- ) The guidelines by NRB for Banks will remain unchanged.
- ) The forecast will be true only when the limitations of least square method are carried out.
- ) The main assumption is that other factors are constant.

#### 4.1.2.3.1 Trend Line Analysis of Total Deposit

The part of this analysis will analyze Total deposit of banks for five years from 2003 to 2007 and projection for next five years i.e. 2008 to 2012. The following table exhibits the trend values of Total deposit of sample banks for 10 years.

Table 26 :Trend Line Analysis of Total Deposit

Year	Trend Values of Total Deposit		
	NBL	NIBL	HBL
2003	11965.08	7316.67	20361.68
2004	14466.84	11370.15	22617.94
2005	16968.60	15423.63	24874.2
2006	19470.36	19477.11	27130.46
2007	21972.12	23530.59	29386.72
2008	24473.88	27584.07	31642.98
2009	26975.64	31637.55	33899.24
2010	29477.40	35691.03	36155.5
1011	31979.16	39744.51	38411.76
2012	34480.92	43797.99	40668.02

[Sources: Annual Report of Concerned Bank, Refer Appendix -25]

Figure - 18

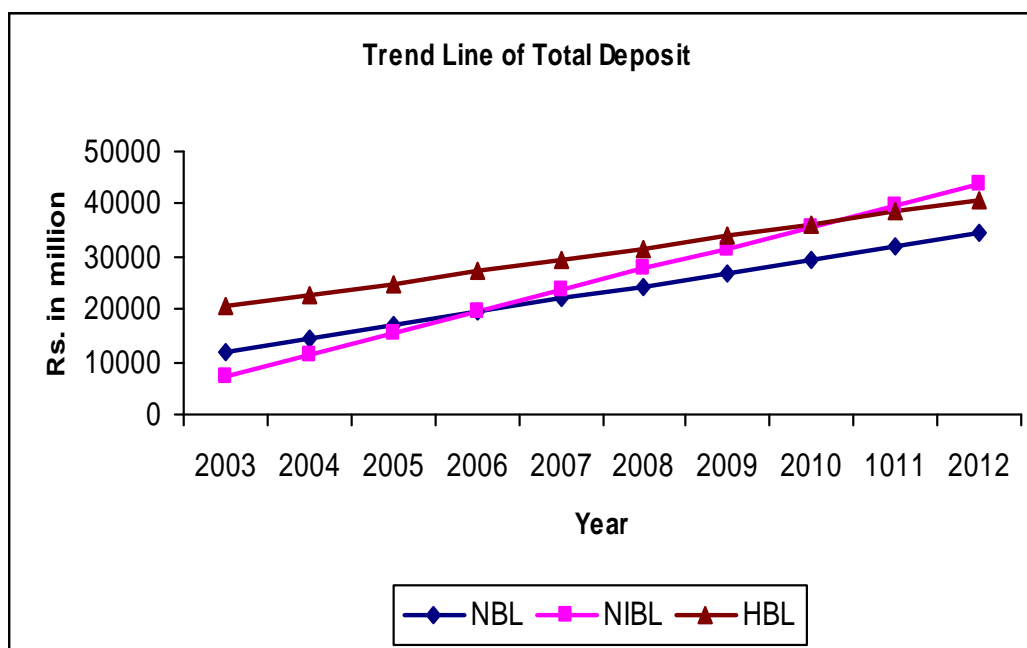


Table 26 exhibits that the trend values of all the sample banks are in increasing trend, which means futures of total deposit of all the sample banks are good. Among the sample banks NIBL has a highest trend of total deposit. It means NIBL is



successful in mobilizing the deposit. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 11965.08, 7316.67 and 20361.68 respectively. It is increase to 34480.92, 43797.99 and 40668.02 for the forecast year 2012.

#### 4.1.2.3.2 Trend Line Analysis of Loan and Advances

The analysis will analyze Loan and Advances of banks for five years from 2003 to 2007 and forecast for following five years i.e. 2008 to 2012. The following table exhibits the trend values of Total deposit of sample banks for 10 years.

Table 27 :Trend Line Analysis of Loan & Advances

Year	Trend Values of Loan & Advances		
	NBL	NIBL	HBL
2003	6937.65	4883.27	9867.16
2004	8968.87	7750.73	11535.46
2005	11000.09	10618.19	13203.76
2006	13031.31	13485.65	14872.06
2007	15062.53	16353.11	16540.36
2008	17093.75	19220.57	18208.66
2009	19124.97	22088.03	19876.96
2010	21156.19	24955.49	21545.26
1011	23187.41	27822.95	23213.56
2012	25218.63	30690.41	24881.86

[Sources: Annual Report of Concerned Bank, Refer Appendix -26]

Figure - 19

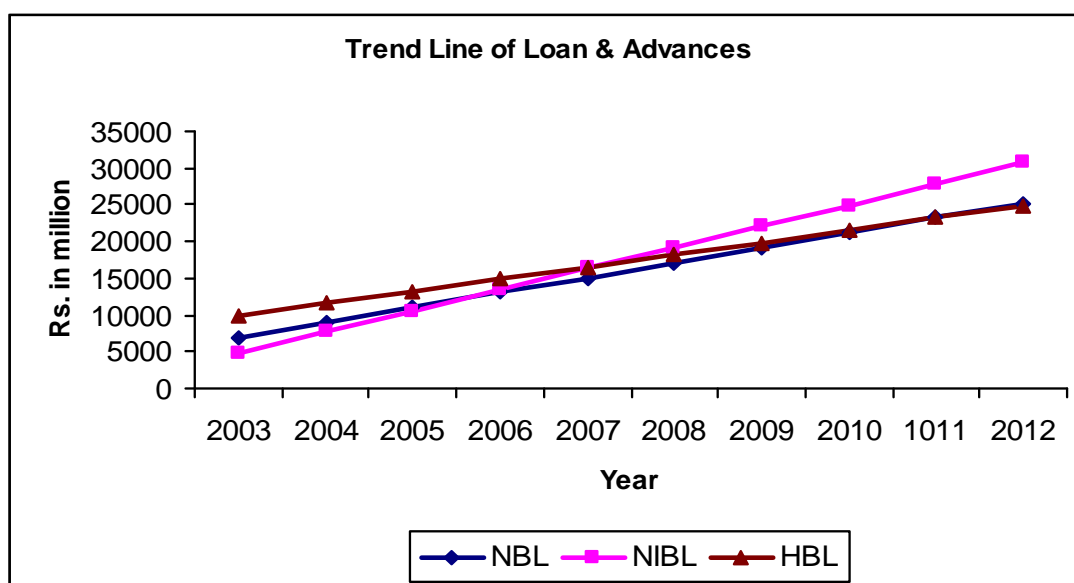


Table 27 exhibits that the trend values of all the sample banks are in increasing trend, which means futures of total Loan and Advances of all the sample banks are good. All the sample banks are successful in mobilizing the Loan and Advances to different productive and profitable sector. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 6937.65, 4883.27 and 9867.16 respectively. It is increase to 25218.63, 30690.41 and 24881.86 for the forecast year 2012.

#### 4.1.2.3.3 Trend Line Analysis of Investment

The following table analyzes the trend values of Investment of sample banks for five years and prediction for next five years.

Table 28 :Trend Line Analysis of Investment

Year	Trend Values of Investments		
	NBL	NIBL	HBL
2003	3143.43	778.86	9867.16
2004	3250.23	1402.26	11535.46
2005	3357.03	2025.66	13203.76
2006	3463.83	2649.06	14872.06
2007	3570.63	3272.46	16540.36
2008	3677.43	3895.86	18208.66
2009	3784.23	4519.26	19876.96
2010	3891.03	5142.66	21545.26
1011	3997.83	5766.06	23213.56
2012	4104.63	6389.46	24881.86

[Sources: Annual Report of Concerned Bank, Refer Appendix -27]

Figure - 20

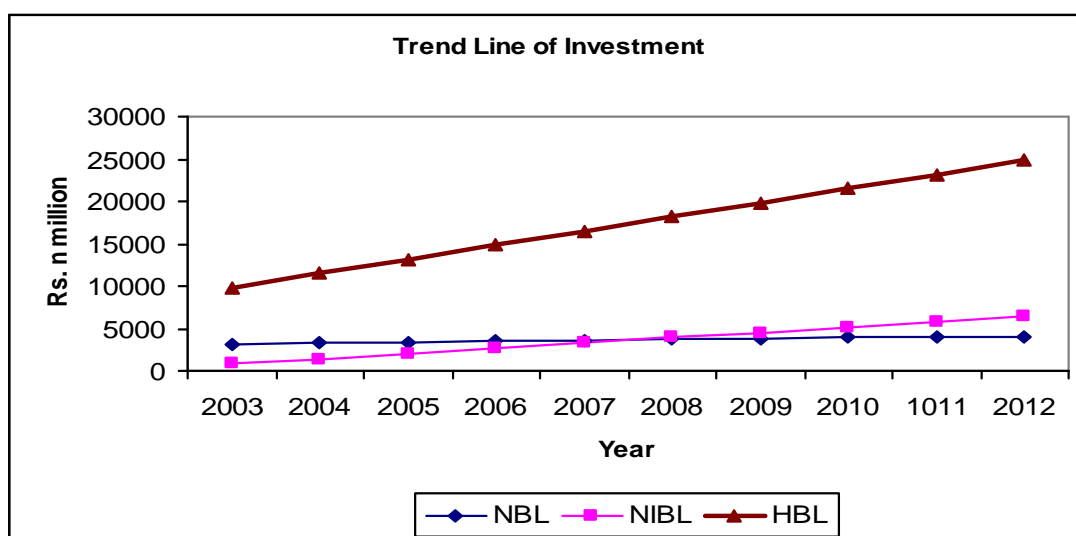


Table 28 exhibits that the trend values of all the sample banks are in increasing trend, which means futures of total deposit of all the sample banks are good. Among the sample banks HBL has a highest trend of Investment. It means HBL is successful in mobilizing the Investment. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 3143.43, 778.86 and 9867.16 respectively. It is increase to 4104.63, 6389.46 and 24881.86 for the forecast year 2012.

#### 4.1.2.3.4 Trend Line Analysis of Net Profit

The following table analyzes the trend values of Net Profit of sample banks for five years and prediction for next five years.

Table 29 :Trend Line Analysis of Net Profit

Year	Trend Values of Net Profits		
	NBL	NIBL	HBL
2003	400.80	77.31	9867.16
2004	470.34	174.01	11535.46
2005	539.88	270.71	13203.76
2006	609.42	367.41	14872.06
2007	678.96	464.11	16540.36
2008	748.50	560.81	18208.66
2009	818.04	657.51	19876.96
2010	887.58	754.21	21545.26
1011	957.12	850.91	23213.56
2012	1026.66	947.61	24881.86

[Sources: Annual Report of Concerned Bank, Refer Appendix -28]

Figure - 21

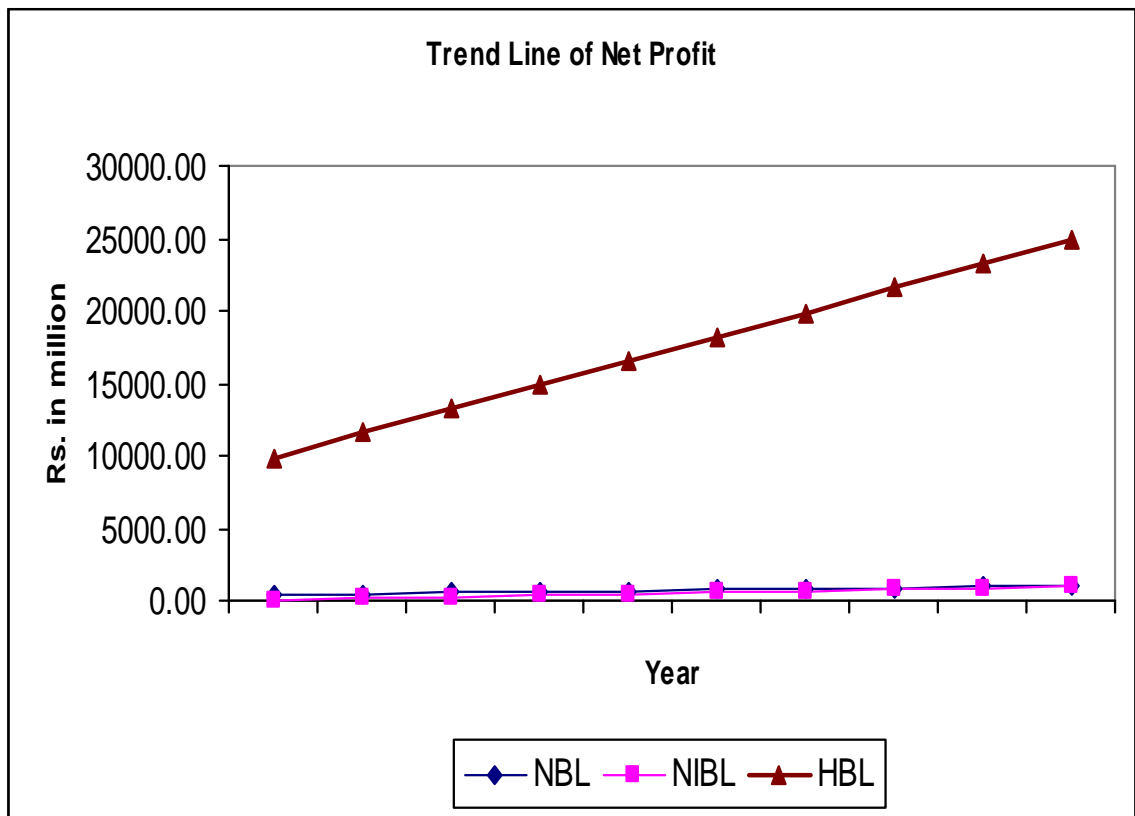


Table 29 exhibits that the trend values of all the sample banks are in increasing trend, which means futures of Net Profit of all the sample banks are good. Among the sample banks HBL has a highest trend of Net Profit. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 400.80, 77.31 and 9867.16 respectively. It is increase to 1026.66, 947.61 and 24881.86 for the forecast year 2012.

## 4.2 Major Finding of the Study

The main findings of the study are carried out on the basis of the analysis of financial data of banks which are as follows:

### 4.2.1 Liquidity Ratio

- ) During the five years study period of three banks the current ratio found to be highly fluctuate. It is well known that the standard current ratio is 2:1. Among sample bank the current ratios of NBL dominate the respective current liabilities which indicate that NBL is capable in paying the current obligation. Therefore NBL has a highest liquidity ratio among sample banks. NIBL and HBL have low current ratio, but it does not mean that they are failed to maintain the liquidity position. From point of view of working policy they are very much aggressive. However average of all banks shows the satisfactory level of current ratio.
  
- ) NIBL found to be in better position to maintain the cash and bank balance ratio among the sample banks. But it does not mean that it has mobilized its more funds in profitable sector. It actually means that it can meet the daily cash requirement to make payments of the customer. NBL has lowest mean ratio which mean it may invest the more fund in the productive sector. HBL has an average mean ratio. All the banks have a fluctuation ratio during study period.

From above results it can said that the liquidity position of NIBL found to be comparatively better than other sample banks. But NBL and HBL also has a satisfactory level of liquidity position due to their aggressive working policy.

### 4.2.2 Assets Management Ratio

- ) The loan and advances to total deposit ratio of all banks found to be at satisfactory level and maintain the good consistency in ratio. However NIBL has a highest mean ratio it shows that NIBL's liquidity position with respect to this ratio is more satisfactory than other sample banks. Apart from that it has a more consistency in ratio than other.

- ) The mean ratio of loan and advances to total deposit ratio all the banks are found to be at satisfactory level. Since NBL has a higher mean ratio, NBL is able to proper utilization of loan and advance with respects to fixed deposit. NIBL and HBL have seemed to less effective in utilizing the loan and advances in compare to NBL.
- ) All the sample banks are successful to mobilize their funds as loan and advances with respect to total assets. But in comparative study for five years for three sample banks HBL has a higher mean ratio, so they are found to be best investor among sample banks. As concern to consistency, almost all banks are failed to maintain the consistent. Among them HBL has maintain the consistency in loan and advances up to some extent.
- ) Among sample banks NBL is successful in mobilizing the deposit in invest on government securities, since it has a higher mean ratio. But NIBL has a lower mean ratio; they are less successful to utilize the deposit in investment on government securities in compare with sample banks. Similarly, HBL is also successful in mobilizing the deposit in investment on Government securities. Among sample banks HBL are able to maintain the consistency in mobilization of investment on government securities.
- ) All sample banks have satisfactory investment on govt. securities to total working fund ratio. Since HBL has a higher mean ratio they are successful in mobilizing the funds in govt. securities. Where as NIBL has a lowest mean ratio which shows that they are failed to invest in govt. securities in past five years. HBL are found to be best as concern with consistency. It has maintained the consistency level up to some extent.

From above finding, it shows that all the sample banks are successful in on-balance sheet utilization as well as off balance sheet operation. Among them NBL found a best in mobilizing the assets to the profitable sector.

### 4.2.3 Profitability Ratio

The following findings are derived from the profitability ratios of sample banks.

- ) All the sample banks are able to earn the profit on total assets. Among them, NBL found to be best, since it has a higher mean ratio than average mean ratio. But as concern to consistency NBL also shows the consistency on earning the profit. In case of another two banks they have lowest earning on total assets and also have lowest consistency in earning the profit.
- ) Net profit to total deposit ratio of NBL is highest among the sample banks whereas HBL have low mean ratios. Similarly NBL have more consistences in ratio.
- ) The mean ratio of net profit to net worth of NBL is highest among the sample banks. Also NBL is found to be best as concern with consistency. It has maintained the best consistency level among the sample banks. NIBL and HBL has lower mean ratio and failed to maintain the consistency.
- ) Even though all sample banks seem to earn the interest on total working fund, NBL has successful in earning the higher interest as well as maintain the consistency in earning. NIBL and HBL are failed to maintain the consistency in earning the interest than NBL.
- ) NBL and HBL seem to be successful to collect its working fund from less expensive sources in comparison to NIBL. Even though NIBL has a higher interest expense they are successful in maintain the stability on expenses of interest

From above finding, we can conclude that NBL has a consistency in earning the profit and expenses on interest and NBL are successful in earning the higher profit with lower interest expenses, where as HBL are average of other comparative banks.

#### **4.2.4 Leverage Ratio**

- ) Debt-assets ratio of the HBL is highest among the sample banks. Whereas NIBL have more consistence in maintaining the ratio. Similarly, NBL has maintained the debt-assets ratio to some extent.
  
- ) Even though HBL is able to maintain the debt-equity ratio than other sample banks but failed to maintain the variability. In part of NIBL they are able to maintain the consistency but they also failed to use the equity fund to creditors. In case of NBL is unable to maintain the debt equity ratio but successes in maintain the variability.

#### **4.2.5 Capital Adequacy Ratio**

- ) The capital adequacy ratio of the NBL is highest among the sample banks. Similarly, HBL has achieved a lowest ratio. NIBL and HBL they both are failed to maintain the variability in comparison to the NBL.
  
- ) NBL has achieved the highest shareholders fund to total assets ratio, which means that they have more assets out of the shareholder's fund. And also NBL is able to maintain the variability. HBL have lowest ratio among the sample banks. NIBL is in average position.

#### **4.2.6 Growth Ratio**

- ) The growth rate of net profit of all sample banks is positive. Among sample banks NIBL have highest growth rate and NBL has lowest growth rate.
  
- ) NBL found to be strongest in comparison to other sample banks in case to growth of earning per share. Whereas HBL found to be lowest growth in earning per share.
  
- ) The growth rate of dividend per share of all sample banks is positive. NIBL has lowest growth rate and NBL has highest growth rate. HBL is in average position.



#### 4.2.7 Coefficient of Correlation

The correlation analysis has pull out the following results.

- ) The Positive correlation between the deposit and loan and advances are found in all sample banks. The correlation between the deposit and loan and advances are perfect as there is significant between them. It means that the all banks provided the loans and advances from its deposit. Banks are successful in mobilizing the deposit as loans and advances.
- ) There is the perfect positive correlation between the deposit and investment in all sample banks. NBL is unsuccessful to use the deposit in proper way .In case of another two banks they have effectively mobilize its deposit on investment. In another word it can be said that Investment is depends upon the deposit.
- ) NIBL and HBL are successful in earn the net profit from it's investment which means that there is a positive correlation between the Investment and net profit. NBL are failed to earn the profit from its deposit since the correlation between the investment and net profit is not significant. It is failed in mobilizing the investment to earn the profit.
- ) All the sample banks are successful in earning the net profit by mobilizing the loan and advances. The correlation between the loan and advances and net profit are found to be positive.

#### 4.2.8 Simple Regression Analysis

- ) Even though all sample banks has a positive regression coefficient. All the sample banks have a high correlation and significance between the net profit and total deposit, while testing the hypothesis. That indicates proportionate change in net profit as increase or decrease in Total Deposits of the bank.
- ) The regression coefficient of net profit and loan and advances for all sample banks are positive. There is a high correlation and significance between the net profit and loan and advances all sample banks, which indicate that if loan and advances increases net profit also increases and vice-versa.

- ) All sample banks has got the positive regression coefficient between the net profit and investment but only NIBL has got the high correlation and significance which represents that if investment is change net profit also change in same ratio. But in case of NBL and HBL there is only slightly changes in net profit is found, even though investment change. This is represents by low correlation and no significance between the net profit and investment.

#### **4.2.9 Trend Line Analysis**

Trend analysis is for past five years for projecting future results. The future trend analysis is done on some basic assumption that will continue in the future. The trend analysis results are as follows:

- ) The trend line of total deposit for all sample banks is in increasing trend. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 11965.08, 7316.67 and 20361.68 respectively. It is increase to 34480.92, 43797.99 and 40668.02 for the forecast year 2012. Among the sample banks NIBL has a highest trend of total deposit. It means NIBL is successful in mobilizing the deposit.
- ) All the sample banks have increasing trend of the loan and advances. Among them NIBL has Highest increasing trend and NBL has lowest increasing trend. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 6937.65, 4883.27 and 9867.16 respectively. It is increase to 25218.63, 30690.41and 24881.86 for the forecast year 2012.
- ) Although all sample banks has increasing trend of the investment HBL has highest increasing trend and NBL has lowest increasing trend. This shows that HBL is successful in mobilizing the investment than other sample banks.
- ) Although all sample banks has increasing trend of Net Profit HBL has highest increasing trend. In fiscal year 2003 the trend values of NBL, NIBL and HBL are 400.80, 77.31 and 9867.16 respectively. It is increase to 1026.66, 947.61and 24881.86 for the forecast year 2012.

## **CHAPTER 5**

# **SUMMARY, CONCLUSION & RECOMMENDATION**

This chapter is a complete suggestive package, which contains summary, conclusion and recommendation. This chapter also highlighted some selected actionable conclusions and recommendation on the basis of the major findings, which are derived from the analysis of NBL, NIBL and HBL. Summary covers the brief explanation to all the chapters of the study and shows the actual facts that have been taken from the analytical section. And the analysis is performed with the help of financial and statistical tools. Conclusions are based on the principal findings of the study representing the strengths and weakness of the performance of the commercial banks. Recommendations are presented in the form of suggestions, which are prepared on the basis of findings.

### **5.1 Summary**

Industrialization is an important factor for achieving the basic objective of a country's economic and social progress. Industrialization not only provides necessary products and services to the community but also create employment opportunities. Industrial development thus has a multiplier effect on the economy. Banking industries been regarded as one of the component of economy. It transfers the scattered funds collected from saving of the public into various productive sectors. Economic activities remains halt in absence of banking industries as it plays the role of catalyst for economic development of the country in the developing country where there prevail unorganized transactions. It helps to enhance economic activities of the country by providing capital funds for the smooth operation of business activities, create employment opportunities, investing agriculture, industry. At present there are altogether 25 commercial banks operating in the country among which NBL and RBB has occupied wide range of the business due to access to most of the corner of the country. Slowly private banks are also initiating to move toward every corner of the country but due to prevailing political crisis they are not being able to meet their objects to reach to every corner of the country. Due to increasing competition banks are forced to innovate new products to their customer and they are also shifting from traditional service procedure to various sophisticated services like ATM card, debit cards, credit card, housing loan, educational loans, vehicle financing.

The NRB has also declare to new commercial bank to have minimum paid up capital Rs. 250 million to operate all over Nepal except Kathmandu valley and Rs. 1,000 billion to operate all over Nepal this is effective form 15<sup>th</sup> May 2002. It also directed commercial banks to invest in the shares and securities of an organization not more than 10 percent paid-up capital of the organization. Likewise, the commercial banks could invest not more than 10 percent in the securities of any one of it's financially self-interest bearing organizations that of not more than 20 percent in case of those financially self-interest bearing organizations. For making investment in the securities like this, the total investment was required to be not more than 30 percent of banks paid-up capital; the investment should be made only in the shares and securities of those organizations which were already listed and were in the process being listed within one year in stock exchange; and the banks could not invest in the shares, securities and hybrid capital instruments in those issued by the banks and financial institutions that took permission from NRB to operate their transactions. If such investment made prior to the issuance of this directive, they required to withdraw within the limit prescribed by this directive as at end of FY 2003/04.

Financial analysis is the process of determining the significant operation and financial characteristics of a firm from accounting data. It shows the relationship between the various component which can be found in balance sheet and profit and loss statement. The analyzed statement contains that information which is useful for management, shareholder, creditors, investors, depositors etc. As in other industries banking industries also need financial analysis, as it is crucial for evaluating and analyzing the performance of the particular company as compare to the other and also from the previous performance of the same company. So, this study almost concentrated in following problems of the sampled banks.

The study covers only three banks NBL, NIBL and HBL among 25 commercial banks. Operating date of these three banks are 16<sup>th</sup> July 1984, 27<sup>th</sup> February 1986 and 18<sup>th</sup> January 1993 respectively. Head office of all sample banks are in Kathmandu. The study completely based on secondary data accumulated from websites. The study is based on five fiscal years from 2002/03 to 2006/07. Therefore the conclusion is concern with only above period. The specific objective of the study will be pointed out as follows:

- a) To analysis the financial performance of sample banks in terms of liquidity, profitability, growth, leverage and capital adequacy.

- b) To identify relationship between net profit with respect to deposit, loan and advances and investment.
- c) To analysis the trend of total deposit, loans and advances, total investment, net profit of the selected banks.

Research Methodology followed to achieve the objective of the study and which constitute Research Design, Source of Date, Population and sample, Data Collection process and Method of Analysis. As it has already mentioned that the procedure has been divided into two parts that is financial analysis and statistical analysis. Both parts have made comparative analysis and their interpretation. There are various tools and technique of financial analysis, each of which is used according to purpose for which the analysis is carried out. The widely technique used is as follows:

- Ratio Analysis
- Statement of changes in financial position
- Cash flow statement

Among them ratio analysis is used by most companies. Therefore in this study we have discussed only about ratio analysis. Under statistical analysis Coefficient of Correlation, Simple regression, Test of Hypothesis and Trend line analysis have been used.

## **5.2 Conclusions**

The overall performance of sample banks found to be satisfactory. All sample banks are not strong in all performance. Some are strong in liquidity position and some are strong in profit making. The analysis of liquidity position of these commercial banks shows different positions. The current ratio measures only total rupees worth of current assets and total rupees of current liabilities, i.e. it indicates the availability of current assets in rupees for everyone rupee of current liability Since mean ratios of NBL found to be highest than NIBL and HBL from which we can conclude that NBL is successful to meet their current obligation. Even though NIBL and HBL have failed to maintain the current obligation they are not failed in earning the profit. From point of view of working policy they have taken the aggressive policy.

The turnover of the commercial banks is the main indication of income generating activity. These ratios are used to judge how efficiently the firm has been using its resources. From the analysis of turnover of banks all the sample banks are

comparatively successful in assets management. Among sample banks NBL found to be comparatively best in mobilizing its assets and deposits in profitable sectors in form of loan and advances, Investment in Government securities and shares & debentures.

The main objective of a bank is to make profit providing different types of services to its customers. Profit is necessary to survive in any business field for its successful operation and further expansion. Profitability shows the overall efficiency of the business concerns. From profitability point of view, NBL found to be better among sample banks because they pay lower interest rate for debt fund and earn higher interest by mobilizing its deposit and assets to different productive and profitable sectors.

Leverage ratio is calculated to measure the long-term financial position of a firm. The analysis of leverage ratio shows that all the sample banks use a high equity fund rather than debt fund. Debt fund need to pay an interest until debt is hold by bank. Therefore debt fund is burden for the bank and it should decrease according to the necessity.

The capital adequacy ratio is used to measure the strength of the capital adequacy of the available capital. The capital base of bank is strongest in NBL, since they have higher capital adequacy ratio. NBL also have more assets from it's shareholder's fund which shows they are strong from point of view of shareholder's fund.

NIBL have highest positive growth rate of net profit among sample banks. NBL is less successful than NIBL and HBL in increasing a net profit. HBL also has satisfied growth rate of net profit. All the sample banks have positive growth rate in EPS and DPS. Although NBL have lowest growth rate of net profit it has highest growth rate in EPS and DPS. This defined that their EPS are higher than HBL and NIBL and also define that NBL has distribute the much dividend than NIBL and HBL.

Deposits are the main tool for developing banking performance of the banks. And investment and loan and advances are keys to mobilize the deposit. All sample banks have a positive relation between the Deposit and Loan & Advances, Deposit and Investment, Investment and Net Profit and also Loan and Advances and Net Profit, which shows by the correlation between these variables. All the sample banks use their deposit use in proper way as Loan and Advances and Investment. Among

them NIBL is best. NBL is weak in earning the net profit through the investment whereas NIBL and HBL are successful to earn net profit by mobilizing the deposit to the investment. Coefficient of correlation between Loan and Advances and Net profit shows that all sample banks are successful in earning the net profit by mobilizing the loan and advances.

The regression analysis shows that increase in Loan and Advances, Deposit and Investment ultimately increases net profit for each sampled banks.

Testing of Hypothesis conclude that there is significance difference Net profit and Total Deposit as well as net profit and Loan and Advances of all the sample banks are 5% level of significance. There is not significant difference between Net Profit and Investment of NBL and HBL but NIBL has significant difference.

The Trend Line Analysis of Deposit, Loan and Advance, Investment and Net Profit shows increasing trend which indicates futures of those variables are bright. Among them NIBL has highest increasing trend in Deposit and Loan and Advances where as HBL has Highest increasing trend in Investment and Net profit. That indicates NIBL is successful in mobilizing the deposit and Loan and Advances Where as HBL has successfully mobilize their Investment.

The overall sample banks is satisfactory however inflation in the current situation came as a major factor in narrowing the scope of operation of these banks. Therefore Nepal Rastra Bank has to play more active role to enhance the operation. The analysis of financial performance shows that all the banks have aggressive policies in investment and lending. Deposits are main tool of investing and all bank's deposit and net profit are in increasing trend.

Strengthening and the institutionalization of the banks are very important to have a meaningful relationship between financial institution and national development through shift of credit to the productive industrial sectors. At the same time the series of reforms such as consolidation of banks, good relationship between financial institution and commercial banks, directing attention to venture capital financing, appropriate risk return trade off by linking credit to timely repayment schedules, avoiding imperfections, allowing flexibility in lending, one window service from NRB, need of a strong supervision and monitoring from NRB, diversify scope of activities to fee based services, allow funds transfer, refinancing facilities for banks, professional

culture within banks, etc. All these are necessary to ensure better future performance of banks that have already been established and growing in Nepal.

Banks have to prove that they are the potential contributors to the national economy ensuring adequate rate of return on investment, efficient and viable agencies for mobilization of savings and its channels into productive sectors and strategically well planned to be competitive with competitors and other agencies and are trust worthy.

### **5.3 Recommendation**

From above finding and analysis it is clear that all banks are not strong in all fields. Some of them are stronger in profit making but failed to maintain the consistency, some are weaker in mobilizing their deposits; few of them have concentrated into very limited diversified investments etc. Therefore the following recommendations should be brought into highlight to overcome inefficiency, weakness and to develop present fund mobilization and investment policy of the banks:

- ) Bank should maintain the liquidity ratio for daily cash transaction. Bank should not invest all the deposit as loan and advances. According to the policy of NRB some percentage should kept in the banks for fulfilling require demand of the customer. The Standard liquidity ratio is 2:1. The depositor may demand the money at time so; bank should be ready at any time. In this research none of sample bank has the standard ratio due to their aggressive working capital policy. Therefore all sample banks should modify their working capital policy to maintain the standard ratio. If sample banks cannot maintain the ratio they may failed to maintain the daily cash transaction.
- ) The Company must apply different development scheme such as deposit, insurance scheme, workers saving scheme and women development scheme through which banks can attract more customers.
- ) HBL have less mobilization of total deposit to loan and advances among sample banks. The purpose of loan and advances is to generate an income for the banks. So, HBL should increase a loan and advances to different productive or profitable sectors. HBL should maintain the consistency.



- ) Fixed deposits are deposited for long period and need to pay higher interest. Therefore fixed deposit can use for long time investment and generate an income for the bank. Since mobilization of fixed deposit by HBL is low among sample banks, they should mobilize its fixed deposit to different productive sector in form of loan and advances or investment etc.
- ) HBL are failed to maintain the average ratio which indicate that they are not very much successful in mobilizing the loan and advance with respect to the total assets. So HBL should try to mobilize the Loan and Advance with respect to Total Assets.
- ) Among sample banks, HBL is less successful in mobilizing its deposit by investing in different productive sectors. Investment is the key to earn a profit. Therefore, they should invest in different productive sectors by utilizing the different types of deposit. Since there consistency level is very high they should maintain stability in total investment.
- ) The overall investment of the Bank should be concentrated on productive sector such as business and industrial loan rather than consumer product such as hire purchase and housing loan. Because industrial and business sector will create the employment opportunity which is necessary for capital formation and economic growth.
- ) NIBL also should increase it's investment toward government securities. And decrease a variation of investment on government securities. Even though Government Securities have low interest rate, they are risk free assets because government securities have marketability and can sell any time when needed.
- ) Profit is a key of success of any business. The bank also cannot survive without the profit. So, they should keep in the mind for profit maximization. But in long term business bank also should be concern with the shareholder's wealth maximization as they are investor of the bank.
- ) HBL is not successful as NIBL and NBL to earn a net profit by utilizing its assets and deposits. So, HBL should invest its deposits and utilize its assets

in different productive and profitable sectors on the basis of portfolio management. The portfolio management of assets basically means allocation of funds into different components of banking assets having different degrees of risk and varying rate of return in such a way that the conflicting goal of maximum yield and minimum risk. So, portfolio condition of each bank should carefully be examined from time to time and attention should be made to maintain equilibrium in the portfolio condition as far as possible keeping the statement in mind that all eggs should not be kept in the same basket. Even though NBL has higher net profit with respect to total assets and deposit, they are failed to maintain stability. Therefore they should decrease a variation level. NIBL also fail to maintain consistency. They should try to maintain consistency level.

- ) NIBL should maintain stability in earning an interest since they have greater variation in earning an interest. Since HBL have low interest earning among the sample banks they should increase an interest earning because it will directly effect to the net profit.
- ) The economic liberalization has made all the bank to determine the own interest rate. But nowadays dew to unhealthy competition the spread between the deposit and lending interest has being higher than Nepal Rastra's Banks policy. If the depositor interest rate is very low then depositor may not interest to deposit their saving. Therefore the spread should be fixed according to the NRB.
- ) NIBL paid a higher interest among sample bank which mean that they used more creditors funds or paid higher interest rate in investment. So, they need to use equity fund rather than debt or should pay a less interest rate. NBL should maintain stability in paying the interest because their variation in interest rate is high.
- ) The discrimination in lending interest should not be done by the bank because it will bring the unsatisfaction to the general public. This may lead to discourage toward deposit in the bank in long term business. The rate of interest should be fixed accordance to the situation of the country. There

should not be unhealthy competition regarding the interest rate to attract customer

- ) All the sample banks have more creditors fund to acquire an assets & investment. This means they all have more debt financing in assets. Since debt financing need to pay an interest regularly, higher debt are burden to bank. Among sample banks highest debt is used by HBL. Therefore they should decrease a debt financing and increase an equity financing, which may help in increasing profit to some extent. Equity fund is invest by shareholder and banks should pay dividend which may be very low than interest. So, more financing should do from equity fund rather than debt fund.
- ) The Growth rate of net profit of NBL is very low in compare to other sample banks. Since, profit is a key of success of business they should increase a net profit by launching different new product or investing in profitable sectors. HBL have lower rate in DPS even though they have satisfactory growth rate of net profit. This may occur due to highest retain of profit for future prospect. NIBL should increase a DPS to bring a strong impact toward shareholder because they are the investor of bank.
- ) Banks should evaluate its investment portfolio every year. Investment portfolio must be balanced in each sector according to the NRB rules and company's self policy. It should calculate co-efficient of correlation and regression among deposit, investment and return of the company.
- ) Nepal Rastra Bank should clearly define its role and strict monitoring for the efficient operations of Banks so that they can use the facilities as much as possible. Besides that, NRB should show open to all, flexible and strong supervision rather than imposing rules and regulations only.
- ) The success rate of banking mainly depends upon the banking awareness by the general public. Unless they find a convincing reason about their savings as well as new approach of investment, it is almost impossible to make live for a bank. Therefore there should be the awareness program, regularly conducted in terms of seminars or workshops from well experienced personnel such as top executives from Banks and concerned regulating

authorities. This will exchange the ideas and share the grass root problems. On the basis of this feed back information, regular changes or implementation of new rules and regulations can be easily carried out. Nepal Rastra Bank should also encourage frequent trainings to new entrants to provide orientations on the conceptual dimensions and practical aspects of operation of the Banks.

- ) Today is an age of competition. Bank should be survived within these competitions. Therefore for attraction of the deposit, they should brought different attractive programmed , facilities , technology etc. like ATM, credit cards, 365days banking service, prompt service etc.
  
- ) In the present situation, it is the utmost important to provide security and the reliability. So the bank should focus on the security concern in order to make the customer feel that they more secured in investing in the bank whether it may be NBL, NIBL or HBL.
  
- ) It is suggested to all the sample banks that they should use well-trained manpower. Well trained manpower will provide better services to the bank and customer. They will try to increase the operating efficiency of the bank, so the banks have to conduct "Training School" for their personal.

Banks play a vital role in development of economy of the country. However all the banks have satisfactory performance, there is situation of inflation which is a cause of narrow scope operation. Therefore NRB has to come with strong supervision and monitoring with one window service in lending and investment activities. Banks have to prove that they are the potential contributors to the national economy ensuring adequate rate of return on investment, efficient and viable agencies for mobilization of savings and its channels into productive sectors and strategically well planned to be competitive with banks and other agencies and are trust worthy.

APPENDIX -1

Current Ratio

Fiscal Year	Banks								
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Ratio (in times) X	d = X - $\bar{X}$	d <sup>2</sup>	Ratio (in times) x	d = X - $\bar{X}$	d <sup>2</sup>	Ratio (in times) X	d = X - $\bar{X}$	d <sup>2</sup>
2002/03	0.9163	-0.0093	0.000086	0.8933	-0.0109	0.000119	0.7584	-0.0550	0.003025
2003/04	0.9400	0.0144	0.000207	0.8878	-0.0164	0.000269	0.7907	-0.0227	0.000515
2004/05	0.9709	0.0453	0.002052	0.9243	0.0201	0.000404	0.8071	-0.0063	0.000040
2005/06	0.8910	-0.0346	0.001197	0.8989	-0.0053	0.000028	0.8360	0.0226	0.000511
2006/07	0.9097	-0.0159	0.000253	0.9166	0.0124	0.000154	0.8749	0.0615	0.003782
X	4.6279			4.5209			4.0671		
Mean ( $\bar{X}$ )	0.9256			0.9042			0.8134		
d <sup>2</sup>			0.003796			0.00097			0.007873
S.D.	0.0308			0.0156			0.0444		
C.V.(%)	3.3283			1.7255			5.4541		

$$\text{Mean} = \frac{\sum X}{N}$$

**Nabil Bank**  

$$= \frac{4.6279}{5}$$
  

$$= 0.9256$$

**Nepal Investment Bank**  

$$= \frac{4.5209}{5}$$
  

$$= 0.9042$$

**Himalayan Bank**  

$$= \frac{4.0671}{5}$$
  

$$= 0.8134$$

$$\text{S.D.} = \sqrt{\frac{\sum d^2}{N}}$$

**Nabil Bank**  

$$= \sqrt{\frac{0.00379591}{5}}$$
  

$$= 0.0308$$

**Nepal Investment Bank**  

$$= \sqrt{\frac{0.0009736}{5}}$$
  

$$= 0.0156$$

**Himalayan Bank**  

$$= \sqrt{\frac{0.007873}{5}}$$
  

$$= 0.0444$$

$$\text{Coefficient of Variations ( C.V.)} = \frac{\text{S.D.}}{\text{Mean}} \times 100$$

**Nabil Bank**  

$$= \frac{0.0308}{0.9256} \times 100$$
  

$$= 3.3276 \%$$

**Nepal Investment Bank**  

$$= \frac{0.0156}{0.9042} \times 100$$
  

$$= 1.7255 \%$$

**Himalayan Bank**  

$$= \frac{0.0444}{0.8134} \times 100$$
  

$$= 5.4541 \%$$

**APPENDIX -2**  
Cash and Bank Balance to Total Deposit Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$
2002/03	0.0851	0.0281	0.000791	0.1170	0.0089	0.000079	0.0942	0.0163	0.000266
2003/04	0.0687	0.0117	0.000138	0.1065	-0.0016	0.000003	0.0909	0.0130	0.000169
2004/05	0.0383	-0.0187	0.000348	0.0940	-0.0141	0.000199	0.0812	0.0033	0.000011
2005/06	0.0326	-0.0244	0.000597	0.1234	0.0153	0.000234	0.0648	-0.0131	0.000172
2006/07	0.0600	0.0030	0.000009	0.0997	-0.0084	0.000071	0.0585	-0.0194	0.000376
$X$	0.2848			0.5406			0.3896		
Mean ( $\bar{X}$ )	0.0570			0.1081			0.0779		
$d^2$			0.001882			0.000585			0.000994
S.D	0.0217			0.0121			0.0158		
C.V. (%)	38.0890			11.1831			20.2329		

**APPENDIX -3**  
Cash and Bank Balance to Current Assets Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$
2002/03	0.0825	0.0257	0.000663	0.1241	0.0111	0.000123	0.1172	0.0255	0.000652
2003/04	0.0681	0.0113	0.000128	0.1105	-0.0025	0.000006	0.1082	0.0165	0.000272
2004/05	0.0374	-0.0194	0.000378	0.0962	-0.0168	0.000283	0.0949	0.0032	0.000010
2005/06	0.0348	-0.0220	0.000486	0.1306	0.0176	0.000310	0.0742	-0.0175	0.000307
2006/07	0.0613	0.0045	0.000020	0.1036	-0.0094	0.000087	0.0640	-0.0277	0.000766
$X$	0.2841			0.5650			0.4585		
Mean ( $\bar{X}$ )	0.0568			0.1130			0.0917		
$d^2$			0.001676			0.000809			0.002008
S.D	0.0205			0.0142			0.0224		
C.V. (%)	36.0185			12.5882			24.4293		

**APPENDIX - 4**

**Loan and Advances to Total Deposit Ratio**

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.5768	-0.0665	0.004429	0.7286	0.0409	0.001669	0.4761	-0.0516	0.002661
2003/04	0.5801	-0.0632	0.003998	0.6187	-0.0690	0.004763	0.5430	0.0153	0.000234
2004/05	0.7257	0.0824	0.006797	0.7104	0.0227	0.000514	0.5007	-0.0270	0.000729
2005/06	0.6679	0.0246	0.000606	0.6750	-0.0127	0.000161	0.5527	0.0250	0.000627
2006/07	0.6660	0.0227	0.000515	0.7059	0.0182	0.000331	0.5657	0.0380	0.001443
$\bar{X}$	3.2165			3.4385			2.6383		
Mean ( $\bar{X}$ )	0.6433			0.6877			0.5277		
$d^2$			0.016346			0.007438			0.005695
S.D	0.0639			0.0431			0.0377		
C.V. (%)	9.9371			6.2705			7.1508		

**APPENDIX - 5**

**Loan and Advances to Fixed Deposit Ratio**

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	3.4432	-0.2943	0.086620	3.4505	0.5765	0.332404	3.1203	0.7062	0.498777
2003/04	3.5446	-0.1929	0.037220	3.1072	0.2332	0.054390	2.5375	0.1234	0.015216
2004/05	5.0931	1.3556	1.837596	3.1523	0.2783	0.077455	2.0343	-0.3798	0.144226
2005/06	3.7467	0.0092	0.000084	2.3603	-0.5137	0.263892	2.3058	-0.1083	0.011720
2006/07	2.8602	-0.8773	0.769639	2.2997	-0.5743	0.329776	2.0726	-0.3415	0.116594
$\bar{X}$	18.6877			14.3701			12.0706		
Mean ( $\bar{X}$ )	3.7375			2.8740			2.4141		
$d^2$			2.731160			1.057917			0.786534
S.D	0.8263			0.5143			0.4434		
C.V. (%)	22.1084			17.8939			18.3683		

### APPENDIX - 6

#### Loan and Advances to Total Working Fund Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$
2002/03	0.4683	-0.0762	0.005809	0.6403	0.0351	0.001235	0.4282	-0.0441	0.001941
2003/04	0.4891	-0.0554	0.003071	0.5379	-0.0673	0.004529	0.4827	0.0104	0.000108
2004/05	0.6160	0.0715	0.005107	0.6222	0.0170	0.000290	0.4462	-0.0261	0.000681
2005/06	0.5787	0.0342	0.001170	0.5990	-0.0062	0.000039	0.4970	0.0247	0.000611
2006/07	0.5704	0.0259	0.000672	0.6265	0.0213	0.000455	0.5071	0.0348	0.001212
$X$	2.7225			3.0260			2.3613		
Mean ( $\bar{X}$ )	0.5445			0.6052			0.4723		
$d^2$			0.015829			0.006547			0.004552
S.D	0.0629			0.0405			0.0337		
C.V. (%)	11.5533			6.6850			7.1434		

### APPENDIX - 7

#### Investment on Govt. Securities to Total Deposit Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$
2002/03	0.2669	0.0634	0.004016	0.0505	-0.0749	0.005612	0.1904	-0.0047	0.000023
2003/04	0.2601	0.0566	0.003206	0.1736	0.0482	0.002327	0.1559	-0.0392	0.001536
2004/05	0.1655	-0.0380	0.001445	0.1367	0.0113	0.000128	0.2204	0.0253	0.000642
2005/06	0.1190	-0.0845	0.007148	0.1333	0.0079	0.000062	0.1942	-0.0009	0.000001
2006/07	0.2060	0.0025	0.000006	0.1330	0.0076	0.000057	0.2148	0.0197	0.000389
$X$	1.0174			0.6271			0.9757		
Mean ( $\bar{X}$ )	0.2035			0.1254			0.1951		
$d^2$			0.015820			0.008185			0.002589
S.D	0.0629			0.0452			0.0254		
C.V. (%)	30.9061			36.0706			13.0375		



### APPENDIX - 8

#### Investment on Govt. Securities to Total Working Fund Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.2167	0.0455	0.002068	0.0444	-0.0659	0.004346	0.1712	-0.0035	0.000012
2003/04	0.2193	0.0481	0.002316	0.1510	0.0407	0.001654	0.1386	-0.0361	0.001304
2004/05	0.1405	-0.0307	0.000945	0.1197	0.0094	0.000089	0.1964	0.0217	0.000473
2005/06	0.1031	-0.0681	0.004642	0.1183	0.0080	0.000063	0.1746	-0.0001	0.000000
2006/07	0.1764	0.0052	0.000027	0.1180	0.0077	0.000060	0.1926	0.0179	0.000319
$\bar{X}$	0.8560			0.5513			0.8734		
Mean ( $\bar{X}$ )	0.1712			0.1103			0.1747		
$d^2$			0.009999			0.006212			0.002108
S.D	0.0500			0.0394			0.0230		
C.V. (%)	29.2052			35.7370			13.1418		

### APPENDIX - 9

#### Net Profit to Total Assets Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.0251	-0.0020	0.000004	0.0130	-0.0017	0.0000030	0.0091	-0.0031	0.000010
2003/04	0.0272	0.0001	0.000000	0.0115	-0.0032	0.000010	0.0106	-0.0016	0.000002
2004/05	0.0302	0.0031	0.000009	0.0143	-0.0004	0.000000	0.0111	-0.0011	0.000001
2005/06	0.0284	0.0013	0.000002	0.0164	0.0017	0.000003	0.0155	0.0033	0.000011
2006/07	0.0247	-0.0024	0.000006	0.0182	0.0035	0.000012	0.0147	0.0025	0.000006
$\bar{X}$	0.1357			0.0733			0.0610		
Mean ( $\bar{X}$ )	0.0271			0.0147			0.0122		
$d^2$			0.000021			0.000028			0.000031
S.D	0.0023			0.0027			0.0028		
C.V. (%)	8.4016			18.1674			22.7053		

**APPENDIX - 10**  
Net Profit to Total Deposit Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.0310	-0.0011	0.000001	0.0147	-0.0020	0.0000038	0.0101	-0.0035	0.000012
2003/04	0.0322	0.0001	0.000000	0.0132	-0.0035	0.000012	0.0120	-0.0016	0.000003
2004/05	0.0356	0.0035	0.000012	0.0163	-0.0004	0.000000	0.0124	-0.0012	0.000001
2005/06	0.0328	0.0007	0.000001	0.0185	0.0018	0.000003	0.0173	0.0037	0.000013
2006/07	0.0289	-0.0032	0.000010	0.0205	0.0038	0.000014	0.0164	0.0028	0.000008
$\bar{X}$	0.1605			0.0833			0.0681		
Mean ( $\bar{X}$ )	0.0321			0.0167			0.0136		
$d^2$			0.000024			0.000033			0.000037
S.D	0.0025			0.0029			0.0031		
C.V. (%)	7.6691			17.3696			22.4745		

**APPENDIX - 11**  
Net Profit to Net Worth Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.3167	-0.0040	0.000016	0.1830	-0.0377	0.0014250	0.1995	-0.0178	0.000316
2003/04	0.3075	-0.0132	0.000175	0.2094	-0.0113	0.000127	0.1987	-0.0186	0.000348
2004/05	0.3129	-0.0078	0.000061	0.1967	-0.0240	0.000576	0.2000	-0.0173	0.000301
2005/06	0.3388	0.0181	0.000328	0.2477	0.0270	0.000727	0.2590	0.0417	0.001740
2006/07	0.3276	0.0069	0.000048	0.2670	0.0463	0.002140	0.2291	0.0118	0.000140
$\bar{X}$	1.6035			1.1037			1.0863		
Mean ( $\bar{X}$ )	0.3207			0.2207			0.2173		
$d^2$			0.000628			0.004995			0.002844
S.D	0.0125			0.0353			0.0267		
C.V. (%)	3.9079			16.0090			12.2740		

**APPENDIX - 12**  
Total Interest Earned to Total Working Fund Ratio

Banks									
Fiscal Year	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$
2002/03	0.0615	0.0014	0.000002	0.0510	-0.0036	0.000013	0.0514	-0.0010	0.000001
2003/04	0.0598	-0.0003	0.000000	0.0552	0.0006	0.000000	0.0503	-0.0021	0.000004
2004/05	0.0622	0.0021	0.000004	0.0545	-0.0001	0.000000	0.0519	-0.0005	0.000000
2005/06	0.0587	-0.0014	0.000002	0.0550	0.0004	0.000000	0.0552	0.0028	0.000008
2006/07	0.0583	-0.0018	0.000003	0.0574	0.0028	0.000008	0.0530	0.0006	0.000000
$X$	0.3004			0.2731			0.2619		
Mean ( $\bar{X}$ )	0.0601			0.0546			0.0524		
$d^2$			0.000012			0.000022			0.000014
S.D	0.0017			0.0023			0.0019		
C.V. (%)	2.8490			4.2671			3.5339		

**APPENDIX - 13**  
Total Interest Paid to Total Working Fund Ratio

Banks									
Fiscal Year	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $X$	$d = X - \bar{X}$	$d^2$
2002/03	0.0192	0.0019	0.000003	0.0210	-0.0020	0.000004	0.0237	0.0020	0.000004
2003/04	0.0169	-0.0004	0.000000	0.0246	0.0016	0.000003	0.0199	-0.0018	0.000003
2004/05	0.0142	-0.0031	0.000010	0.0218	-0.0012	0.000001	0.0202	-0.0015	0.000002
2005/06	0.0160	-0.0013	0.000002	0.0230	0.0000	0.000000	0.0220	0.0003	0.000000
2006/07	0.0204	0.0031	0.000010	0.0248	0.0018	0.000003	0.0229	0.0012	0.000001
$X$	0.0866			0.1152			0.1087		
Mean ( $\bar{X}$ )	0.0173			0.0230			0.0217		
$d^2$			0.000025			0.000012			0.000011
S.D	0.0025			0.0017			0.0017		
C.V. (%)	14.3372			7.3593			7.7542		

### APPENDIX - 14

#### Debt- Asset Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.9207	0.0054	0.000029	0.9292	-0.0042	0.000018	0.9545	0.0102	0.000104
2003/04	0.9116	-0.0037	0.000014	0.9450	0.0116	0.000135	0.9465	0.0022	0.000005
2004/05	0.9035	-0.0118	0.000138	0.9275	-0.0059	0.000035	0.9446	0.0003	0.000000
2005/06	0.9160	0.0007	0.000001	0.9336	0.0002	0.000000	0.9400	-0.0043	0.000018
2006/07	0.9245	0.0092	0.000085	0.9319	-0.0015	0.000002	0.9360	-0.0083	0.000070
$\bar{X}$	4.5763			4.6672			4.7216		
Mean ( $\bar{X}$ )	0.9153			0.9334			0.9443		
$d^2$			0.000266			0.000190			0.000196
S.D	0.0082			0.0069			0.0070		
C.V. (%)	0.8914			0.7379			0.7418		

### APPENDIX - 15

#### Debt- Equity Ratio

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	11.6030	0.7156	0.512094	13.1172	-1.0526	1.108019	20.9682	3.7632	14.161376
2003/04	10.3078	-0.5796	0.335948	17.1819	3.0121	9.072629	17.7002	0.4952	0.245195
2004/05	9.3680	-1.5194	2.308536	12.7896	-1.3802	1.904981	17.0604	-0.1446	0.020896
2005/06	10.9094	0.0220	0.000483	14.0697	-0.1001	0.010015	15.6803	-1.5247	2.324749
2006/07	12.2488	1.3614	1.853338	13.6907	-0.4791	0.229491	14.6157	-2.5893	6.704378
$\bar{X}$	54.4370			70.8491			86.0248		
Mean ( $\bar{X}$ )	10.8874			14.1698			17.2050		
$d^2$			5.010399			12.325135			23.456594
S.D	1.1192			1.7554			2.4216		
C.V. (%)	10.2797			12.3880			14.0750		

**APPENDIX - 16**

**Shareholder's Fund to Total Deposit Ratio**

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.0977	-0.0026	0.000007	0.0806	0.0050	0.0000249	0.0101	-0.0035	0.000012
2003/04	0.1049	0.0046	0.000021	0.0633	-0.0123	0.000152	0.0120	-0.0016	0.000003
2004/05	0.1136	0.0133	0.000178	0.0828	0.0072	0.000052	0.0124	-0.0012	0.000001
2005/06	0.0969	-0.0034	0.000011	0.0748	-0.0008	0.000001	0.0173	0.0037	0.000013
2006/07	0.0881	-0.0122	0.000148	0.0767	0.0011	0.000001	0.0164	0.0028	0.000008
$\bar{X}$	0.5013			0.3781			0.0681		
Mean ( $\bar{X}$ )	0.1003			0.0756			0.0136		
$d^2$			0.000365			0.000231			0.000037
S.D	0.0096			0.0076			0.0031		
C.V. (%)	9.5321			10.0448			22.4745		

**APPENDIX - 17**

**Shareholder's Fund to Total Assets Ratio**

Banks									
	Nabil Bank Limited			Nepal Investment Bank Limited			Himalayan Bank Limited		
Fiscal Year	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$	Ratio (in times) $\bar{X}$	$d = X - \bar{X}$	$d^2$
2002/03	0.0793	-0.0054	0.000029	0.0708	0.0042	0.0000179	0.0091	-0.0031	0.000010
2003/04	0.0884	0.0037	0.000014	0.0550	-0.0116	0.000135	0.0106	-0.0016	0.000002
2004/05	0.0965	0.0118	0.000138	0.0725	0.0059	0.000035	0.0111	-0.0011	0.000001
2005/06	0.0840	-0.0007	0.000001	0.0664	-0.0002	0.000000	0.0155	0.0033	0.000011
2006/07	0.0755	-0.0092	0.000085	0.0681	0.0015	0.000002	0.0147	0.0025	0.000006
$\bar{X}$	0.4237			0.3328			0.0610		
Mean ( $\bar{X}$ )	0.0847			0.0666			0.0122		
$d^2$			0.000266			0.000190			0.000031
S.D	0.0082			0.0069			0.0028		
C.V. (%)	9.6284			10.3484			22.7053		

## APPENDIX -18

### Coefficient of Correlation between Deposits (x) and Loan & Advance (y)

#### Nabil Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	13447.66	7755.95	104299378.58	180839559.48	60154760.40
2003/04	14119.03	8189.99	115634714.51	199347008.14	67075936.20
2004/05	14586.61	10586.17	154416333.18	212769191.29	112066995.27
2005/06	19347.40	12922.54	250017550.40	374321886.76	166992040.05
2006/07	23342.29	15545.78	362874105.04	544862502.44	241671275.81
	$\phi x = 84842.99$	$\phi y = 55000.43$	$\phi xy = 987242081.70$	$\phi x^2 = 1512140148.11$	$\phi y^2 = 647961007.73$

correlation (r) = 0.9672

#### Nepal Investment Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	7922.75	5772.14	45731222.19	62769967.56	33317600.18
2003/04	11524.68	7130.13	82172466.61	132818249.10	50838753.82
2004/05	14254.57	10126.06	144342631.09	203192765.88	102537091.12
2005/06	18927.31	12776.21	241819287.30	358243063.84	163231541.96
2006/07	24488.84	17286.42	423324373.55	599703284.55	298820316.42
	$\phi x = 77118.15$	$\phi y = 53090.96$	$\phi xy = 937389980.74$	$\phi x^2 = 1356727330.93$	$\phi y^2 = 648745303.50$

correlation (r) = 0.9940

#### Himalayan Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	21007.37	10001.85	210112563.63	441309594.32	100037003.42
2003/04	22010.33	11951.87	263064602.82	484454626.71	142847196.50
2004/05	24814.01	12424.52	308302163.53	615735092.28	154368697.23
2005/06	26490.85	14642.56	387893860.58	701765133.72	214404563.35
2006/07	30048.42	16998.00	510763043.16	902907544.50	288932004.00
	$\phi x = 124370.98$	$\phi y = 66018.80$	$\phi xy = 1680136233.71$	$\phi x^2 = 3146171991.52$	$\phi y^2 = 900589464.50$

correlation (r) = 0.9745

## APPENDIX -19

### Coefficient of Correlation between Deposits (x) and Investment (y)

#### Nabil Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	13447.66	3588.77	48260558.78	180839559.48	12879270.11
2003/04	14119.03	3672.63	51853973.15	199347008.14	13488211.12
2004/05	14586.61	2413.94	35211201.34	212769191.29	5827106.32
2005/06	19347.40	2301.46	44527267.20	374321886.76	5296718.13
2006/07	23342.29	4808.35	112237900.12	544862502.44	23120229.72
	$\phi x = 84842.99$	$\phi y = 16785.15$	$\phi xy = 292090900.60$	$\phi x^2 = 1512140148.11$	$\phi y^2 = 60611535.41$

correlation (r) = 0.4136

Nepal Investment Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	7922.75	400.00	3169100.00	62769967.56	160000.00
2003/04	11524.68	2001.10	23062037.15	132818249.10	4004401.21
2004/05	14254.57	1948.50	27775029.65	203192765.88	3796652.25
2005/06	18927.31	2522.30	47740354.01	358243063.84	6361997.29
2006/07	24488.84	3256.40	79745458.58	599703284.55	10604140.96
	$\phi x = 77118.15$	$\phi y = 12187.20$	$\phi xy = 181491979.38$	$\phi x^2 = 1356727330.93$	$\phi y^2 = 24927191.71$

correlation (r) = 0.9305

Himalayan Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	21007.37	3998.87	84005741.67	441309594.32	15990961.28
2003/04	22010.33	3431.73	75533509.77	484454626.71	11776770.79
2004/05	24814.01	5469.73	135725934.92	615735092.28	29917946.27
2005/06	26490.85	5144.31	136277144.56	701765133.72	26463925.38
2006/07	30048.42	6454.87	193958644.81	902907544.50	41665346.72
	$\phi x = 124370.98$	$\phi y = 24607.51$	$\phi xy = 625500975.73$	$\phi x^2 = 3146171991.52$	$\phi y^2 = 125814950.44$

correlation (r) = 0.9244

**APPENDIX - 20**

Coefficient of Correlation between Investment (x) and Net profit (y)

Nabil Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	3588.77	416.24	1493789.62	12879270.11	173255.74
2003/04	3672.63	455.31	1672185.17	13488211.12	207307.20
2004/05	2413.94	518.63	1251941.70	5827106.32	268977.08
2005/06	2301.46	635.26	1462025.48	5296718.13	403555.27
2006/07	4808.35	673.96	3240635.57	23120229.72	454222.08
	$\phi x = 16785.15$	$\phi y = 2699.40$	$\phi xy = 9120577.54$	$\phi x^2 = 60611535.41$	$\phi y^2 = 1507317.36$

correlation (r) = 0.1270

Nepal Investment Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	400.00	116.82	46728.00	160000.00	13646.91
2003/04	2001.10	152.67	305507.94	4004401.21	23308.13
2004/05	1948.50	232.15	452344.28	3796652.25	53893.62
2005/06	2522.30	350.54	884167.04	6361997.29	122878.29
2006/07	3256.40	501.39	1632726.40	10604140.96	251391.93
	$\phi x = 10128.30$	$\phi y = 1353.57$	$\phi xy = 3321473.65$	$\phi x^2 = 24927191.71$	$\phi y^2 = 465118.89$

correlation (r) = 0.8785

Himalayan Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	3998.87	212.12	848240.30	15990961.28	44994.89
2003/04	3431.73	263.05	902716.58	11776770.79	69195.30
2004/05	5469.73	308.28	1686208.36	29917946.27	95036.56
2005/06	5144.31	457.46	2353316.05	26463925.38	209269.65
2006/07	6454.87	491.82	3174634.16	41665346.72	241886.91
	$\phi x = 24499.51$	$\phi y = 1732.73$	$\phi xy = 8965115.46$	$\phi x^2 = 125814950.44$	$\phi y^2 = 660383.32$

correlation (r) = 0.8077

**APPENDIX - 21**

Coefficient of Correlation between Loan and Advances (x) and Net profit (y)

Nabil Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	7755.95	416.24	3228336.63	60154760.40	173255.74
2003/04	8189.99	455.31	3728984.35	67075936.20	207307.20
2004/05	10586.17	518.63	5490305.35	112066995.27	268977.08
2005/06	12922.54	635.26	8209172.76	166992040.05	403555.27
2006/07	15545.78	673.96	10477233.89	241671275.81	454222.08
	$\phi x = 55000.43$	$\phi y = 2699.40$	$\phi xy = 31134032.97$	$\phi x^2 = 647961007.73$	$\phi y^2 = 1507317.36$

correlation (r) = 0.9832

Nepal Investment Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	5772.14	116.82	674301.39	33317600.18	13646.91
2003/04	7130.13	152.67	1088556.95	50838753.82	23308.13
2004/05	10126.06	232.15	2350764.83	102537091.12	53893.62
2005/06	12776.21	350.54	4478572.65	163231541.96	122878.29
2006/07	17286.42	501.39	8667238.12	298820316.42	251391.93
	$\phi x = 53090.96$	$\phi y = 1353.57$	$\phi xy = 17259433.95$	$\phi x^2 = 648745303.50$	$\phi y^2 = 465118.89$

correlation (r) = 0.9967

Himalayan Bank Limited

Fiscal Year	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
2002/03	10001.85	212.12	2121592.42	100037003.42	44994.89
2003/04	11951.87	263.05	3143939.40	142847196.50	69195.30
2004/05	12424.52	308.28	3830231.03	154368697.23	95036.56
2005/06	14642.56	457.46	6698385.50	214404563.35	209269.65
2006/07	16998.00	491.82	8359956.36	288932004.00	241886.91
	$\phi x = 66018.80$	$\phi y = 1732.73$	$\phi xy = 24154104.71$	$\phi x^2 = 900589464.50$	$\phi y^2 = 660383.32$

correlation (r) = 0.9695



## APPENDIX - 22

Regression between Total Deposit as independent variable (x) and Net profit as dependent variable (y)

$$y = a + bx$$

### Nabil Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	13447.66	416.24	180839559.48	173255.74	5597453.998
2004	14119.03	455.31	199347008.14	207307.2	6428535.55
2005	14586.61	518.63	212769191.29	268977.08	7565053.54
2006	19347.40	635.26	374321886.76	403555.27	12290629.32
2007	23342.29	673.96	544862502.44	454222.08	15731769.77
	84842.99	2699.4	1512140148.11	1507317.4	47613442.18

$$y = 116.4682 + 0.0250x$$

$$\text{correlation } (r) = 0.9503$$

$$T\text{-test} = 5.29$$

### Nepal Investment Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	7922.75	116.82	62769967.56	13646.912	925535.655
2004	11524.68	152.67	132818249.10	23308.129	1759472.90
2005	14254.57	232.15	203192765.88	53893.623	3309198.43
2006	18927.31	350.54	358243063.84	122878.29	6634779.25
2007	24488.84	501.39	599703284.55	251391.93	12278459.49
	77118.15	1353.57	1356727330.93	465118.89	24907445.71

$$y = -100.8942 + 0.0241x$$

$$\text{correlation } (r) = 0.9920$$

$$T\text{-test} = 13.58$$

### Himalayan Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	21007.37	212.12	441309594.32	44994.894	4456083.324
2004	22010.33	263.05	484454626.71	69195.303	5789817.31
2005	24814.01	308.28	615735092.28	95036.558	7649663.00
2006	26490.85	457.46	701765133.72	209269.65	12118504.24
2007	30048.42	491.82	902907544.50	241886.91	14778413.92
	124370.98	1732.73	3146171991.52	660383.32	44792481.8

$$y = -454.5470 + 0.0322x$$

$$\text{correlation } (r) = 0.9538$$

$$T\text{-test} = 5.50$$

### APPENDIX - 23

Regression between Loan & Advances as independent variable (x) and Net profit as dependent variable (y)  
 $y = a + bx$

#### Nabil Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	7755.95	416.24	60154760.40	173255.74	3228336.628
2004	8189.99	455.31	67075936.20	207307.2	3728984.35
2005	10586.17	518.63	112066995.27	268977.08	5490305.35
2006	12922.54	635.26	166992040.05	403555.27	8209172.76
2007	15545.78	673.96	241671275.81	454222.08	10477233.89
	55000.43	2699.4	647961007.73	1507317.4	31134032.97

$$y = 170.9868 + 0.0335x$$

$$\text{correlation } (r) = 0.9832$$

$$T\text{-test} = 9.34$$

#### Nepal Investment Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	5772.14	116.82	33317600.18	13646.912	674301.3948
2004	7130.13	152.67	50838753.82	23308.129	1088556.95
2005	10126.06	232.15	102537091.12	53893.623	2350764.83
2006	12776.21	350.54	163231541.96	122878.29	4478572.65
2007	17286.42	501.39	298820316.42	251391.93	8667238.12
	53090.96	1353.57	648745303.50	465118.89	17259433.95

$$y = -89.8609 + 0.0340x$$

$$\text{correlation } (r) = 0.9967$$

$$T\text{-test} = 21.23$$

#### Himalayan Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	10001.85	212.12	100037003.42	44994.894	2121592.422
2004	11951.87	263.05	142847196.50	69195.303	3143939.40
2005	12424.52	308.28	154368697.23	95036.558	3830231.03
2006	14642.56	457.46	214404563.35	209269.65	6698385.50
2007	16998.00	491.82	288932004.00	241886.91	8359956.36
	66018.8	1732.73	900589464.50	660383.32	24154104.71

$$y = -236.3655 + 0.0441x$$

$$\text{correlation } (r) = 0.9695$$

$$T\text{-test} = 6.85$$

## APPENDIX - 24

Regression between Investment as independent variable (x) and Net profit as dependent variable (y)

$$y = a + bx$$

### Nabil Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	3588.77	416.24	12879270.11	173255.74	1493789.625
2004	3672.63	455.31	13488211.12	207307.2	1672185.17
2005	2413.94	518.63	5827106.32	268977.08	1251941.70
2006	2301.46	635.26	5296718.13	403555.27	1462025.48
2007	4808.35	673.96	23120229.72	454222.08	3240635.57
	16785.15	2699.4	60611535.41	1507317.4	9120577.538

$$y = 493.7282 + 0.0137x$$

$$\text{correlation } (r) = 0.1270$$

$$T\text{-test} = 0.22$$

### Nepal Investment Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	400.00	116.82	160000.00	13646.912	46728
2004	2001.10	152.67	4004401.21	23308.129	305507.94
2005	1948.50	232.15	3796652.25	53893.623	452344.28
2006	2522.30	350.54	6361997.29	122878.29	884167.04
2007	3256.40	501.39	10604140.96	251391.93	1632726.40
	10128.3	1353.57	24927191.71	465118.89	3321473.65

$$y = 4.5261 + 0.1314x$$

$$\text{correlation } (r) = 0.8785$$

$$T\text{-test} = 3.19$$

### Himalayan Bank Limited

Year	x	y	x <sup>2</sup>	y <sup>2</sup>	xy
2003	3998.87	212.12	15990961.28	44994.894	848240.3044
2004	3431.73	263.05	11776770.79	69195.303	902716.58
2005	5469.73	308.28	29917946.27	95036.558	1686208.36
2006	5144.31	457.46	26463925.38	209269.65	2353316.05
2007	6454.87	491.82	41665346.72	241886.91	3174634.16
	24499.51	1732.73	125814950.44	660383.32	8965115.461

$$y = -56.7649 + 0.0823x$$

$$\text{correlation } (r) = 0.8077$$

$$T\text{-test} = 2.37$$

## APPENDIX - 25

Trend Line Analysis of Deposits

$$y = a + bx$$

### Nabil Bank Limited

Calculation of Trend Values of Deposit

year (t)	Deposit (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 16968.6 + 2501.76 x
2003	13447.66	-2	-26895.32	4	11965.08
2004	14119.03	-1	-14119.03	1	14466.84
2005	14586.61	0	0	0	16968.6
2006	19347.40	1	19347.4	1	19470.36
2007	23342.29	2	46684.58	4	21972.12
	<b>84842.99</b>	<b>0</b>	<b>25018</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 16968.6 + 2501.76 x
2008	3	24473.88
2009	4	26975.64
2010	5	29477.4
2011	6	31979.16
2012	7	34480.92

### Nepal Investment Bank Limited

Calculation of Trend Values of Deposit

year (t)	Deposit (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 15423.63 + 4053.48 x
2003	7922.75	-2	-15845.5	4	7316.67
2004	11524.68	-1	-11524.68	1	11370.15
2005	14254.57	0	0	0	15423.63
2006	18927.31	1	18927.31	1	19477.11
2007	24488.84	2	48977.68	4	23530.59
	<b>77118.15</b>	<b>0</b>	<b>40535</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 15423.63 + 4053.48 x
2008	3	27584.07
2009	4	31637.55
2010	5	35691.03
2011	6	39744.51
2012	7	43797.99

### Himalayan Bank Limited

Calculation of Trend Values of Deposit

year (t)	Deposit (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 24874.20 + 2256.26 x
2003	21007.37	-2	-42014.74	4	20361.68
2004	22010.33	-1	-22010.33	1	22617.94
2005	24814.01	0	0	0	24874.2
2006	26490.85	1	26490.85	1	27130.46
2007	30048.42	2	60096.84	4	29386.72
	<b>124370.98</b>	<b>0</b>	<b>22563</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 24874.20 + 2256.26 x
2008	3	31642.98
2009	4	33899.24
2010	5	36155.5
2011	6	38411.76
2012	7	40668.02

## APPENDIX - 26

Trend Line Analysis of Loan and Advances

$$y = a + bx$$

### Nabil Bank Limited

Calculation of Trend Values of Loan and Advances

year (t)	Loan & Advances (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 11000.09 + 2031.22 x
2003	7755.95	-2	-15511.90	4	6937.65
2004	8189.99	-1	-8189.99	1	8968.87
2005	10586.17	0	0	0	11000.09
2006	12922.54	1	12922.54	1	13031.31
2007	15545.78	2	31091.56	4	15062.53
	<b>55000.43</b>	<b>0</b>	<b>20312</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 11000.09 + 2031.22 x
2008	3	17093.75
2009	4	19124.97
2010	5	21156.19
2011	6	23187.41
2012	7	25218.63

### Nepal Investment Bank Limited

Calculation of Trend Values of Loan and Advances

year (t)	Loan & Advances (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 10618.19 + 2867.46 x
2003	5772.14	-2	-11544.28	4	4883.27
2004	7130.13	-1	-7130.13	1	7750.73
2005	10126.06	0	0	0	10618.19
2006	12776.21	1	12776.21	1	13485.65
2007	17286.42	2	34572.84	4	16353.11
	<b>53090.96</b>	<b>0</b>	<b>28674.64</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 10618.19 + 2867.46 x
2008	3	19220.57
2009	4	22088.03
2010	5	24955.49
2011	6	27822.95
2012	7	30690.41

### Himalayan Bank Limited

Calculation of Trend Values of Loan and Advances

year (t)	Loan & Advances (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 13203.76 + 1668.30 x
2003	10001.85	-2	-20003.70	4	9867.16
2004	11951.87	-1	-11951.87	1	11535.46
2005	12424.52	0	0	0	13203.76
2006	14642.56	1	14642.56	1	14872.06
2007	16998.00	2	33996.00	4	16540.36
	<b>66018.80</b>	<b>0</b>	<b>16682.99</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 13203.76 + 1668.30 x
2008	3	18208.66
2009	4	19876.96
2010	5	21545.26
2011	6	23213.56
2012	7	24881.86

## APPENDIX - 27

Trend Line Analysis of Investments

$$y = a + bx$$

### Nabil Bank Limited

Calculation of Trend Values of Investment

year (t)	Investment (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 3357.03 + 106.80 x
2003	3588.77	-2	-7177.54	4	3143.43
2004	3672.63	-1	-3672.63	1	3250.23
2005	2413.94	0	0	0	3357.03
2006	2301.46	1	2301.46	1	3463.83
2007	4808.35	2	9616.70	4	3570.63
	<b>16785.15</b>	<b>0</b>	<b>1067.99</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 3357.03 + 106.80 x
2008	3	3677.43
2009	4	3784.23
2010	5	3891.03
2011	6	3997.83
2012	7	4104.63

### Nepal Investment Bank Limited

Calculation of Trend Values of Investments

year (t)	Investment (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 2025.66 + 623.40 x
2003	400.00	-2	-800.00	4	778.86
2004	2001.10	-1	-2001.10	1	1402.26
2005	1948.50	0	0	0	2025.66
2006	2522.30	1	2522.30	1	2649.06
2007	3256.40	2	6512.80	4	3272.46
	<b>10128.30</b>	<b>0</b>	<b>6234.00</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 2025.66 + 623.40 x
2008	3	3895.86
2009	4	4519.26
2010	5	5142.66
2011	6	5766.06
2012	7	6389.46

### Himalayan Bank Limited

Calculation of Trend Values of Investments

year (t)	Investment (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 13203.76 + 1668.30 x
2003	3998.87	-2	-7997.74	4	9867.16
2004	3431.73	-1	-3431.73	1	11535.46
2005	5469.73	0	0	0	13203.76
2006	5144.31	1	5144.31	1	14872.06
2007	6454.87	2	12909.74	4	16540.36
	<b>24499.51</b>	<b>0</b>	<b>6624.58</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 13203.76 + 1668.30 x
2008	3	18208.66
2009	4	19876.96
2010	5	21545.26
2011	6	23213.56
2012	7	24881.86

## APPENDIX - 28

Trend Line Analysis of Net Profit

$$y = a + bx$$

### Nabil Bank Limited

Calculation of Trend Values of Net Profit

year (t)	Net Profit (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 539.88 + 69.54 x
2003	416.24	-2	-832.48	4	400.80
2004	455.31	-1	-455.31	1	470.34
2005	518.63	0	0	0	539.88
2006	635.26	1	635.26	1	609.42
2007	673.96	2	1347.92	4	678.96
	<b>2699.40</b>	<b>0</b>	<b>695.39</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 539.88 + 69.54 x
2008	3	748.50
2009	4	818.04
2010	5	887.58
2011	6	957.12
2012	7	1026.66

### Nepal Investment Bank Limited

Calculation of Trend Values of Net Profit

year (t)	Net Profit (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 270.71 + 96.70 x
2003	116.82	-2	-233.64	4	77.31
2004	152.67	-1	-152.67	1	174.01
2005	232.15	0	0	0	270.71
2006	350.54	1	350.54	1	367.41
2007	501.39	2	1002.78	4	464.11
	<b>1353.57</b>	<b>0</b>	<b>967.01</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 270.71 + 96.70 x
2008	3	560.81
2009	4	657.51
2010	5	754.21
2011	6	850.91
2012	7	947.61

### Himalayan Bank Limited

Calculation of Trend Values of Net Profit

year (t)	Net Profit (y)	x = t - 2005	xy	x <sup>2</sup>	yc = 13203.76 + 1668.30 x
2003	212.12	-2	-424.24	4	9867.16
2004	263.05	-1	-263.05	1	11535.46
2005	308.28	0	0	0	13203.76
2006	457.46	1	457.46	1	14872.06
2007	491.82	2	983.64	4	16540.36
	<b>1732.73</b>	<b>0</b>	<b>753.81</b>	<b>10</b>	

Future Projection of Next Five Year

year	x = t - 2005	yc = 13203.76 + 1668.30 x
2008	3	18208.66
2009	4	19876.96
2010	5	21545.26
2011	6	23213.56
2012	7	24881.86

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