# **CHAPTER-I**

## **INTRODUCTION**

### 1.1 General Background of the Study

Financial performance analysis can be considered as a heart of the financial decisions. The growth and development of any enterprise is directly influenced by the financial policy. Rational evaluation of the financial performance of the financial management in public enterprises is too much involved in record keeping, raising necessary funds and maintaining relationship with the bank or other financial institutions. But financial aspect is one of the most neglected aspects of public enterprises in Nepal. However joint venture banks have analyzed financial performance for their corrective actions. But their analysis is limited within the banks themselves.

Financial performance as a part of the financial management is the main indicator of the success or failure of the firm. There are different institutions that affect or are affected by the decision of the firm. Financial condition of business firm should be sound from the point of view of shareholders, debenture holders, financial institution and nation as whole.

Though the type of analysis varies according to the specific interest of the part involved, shareholders of the firm are concerned principally with the present and expected future earnings of other enterprise. This indicates that they concentrate their analysis on the profitability of the firm.

Management of the firm is interested in all aspects of financial analysis to adopt a good financial management system for the internal control of the enterprise. Similarly, trade creditors are primarily interested in the liquidity position of the firm. Long-term creditors are more interested in the cash flow ability of the enterprise to service debt over a long run. Similarly, all the concerned groups are directly or indirectly interested about the financial performance of the firm.

The absolute accounting figures are reported in the financial statement: the balance sheet, the profit and loss account and the other statements do not provide a meaningful understating of the performance and financial position of the firm. An accounting figure conveys meaning, when it is related to some other relevant information. A quantitative judgment about the firm's financial position and performance should be made from the point view of a firm's investment. Thus financial analysis is the main qualitative judgment process of identifying the financial strengths and weaknesses of the firm by properly establishing the relationship between the items of the balance sheet and profit and loss account.

Ratio analysis is a powerful tool of financial analysis. A ration is designed as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things". In financial analysis, ratio is used as a benchmark for evaluating the financial position and performance of a firm. (*Pandey: 1996; P.104*)

In the financial world, a bank's performance has mainly focused on financial performance decision. A commercial bank's performance is to be examined for various reasons. Bank regulators identify banks that are experiencing severe problems so that they can give remedy to them.

Joint venture banks in Nepal are profit making business institutions. So, the profit earned by a joint venture commercial bank in Nepal is the main financial performance indicator of the bank. However, it cannot solely predict the performance of the bank by analyzing the profitability status only. Every aspect of the financial analysis is to be considered for financial performance of the bank. An analysis of income and expenditure and bankruptcy score of the bank is also the important indicators of the bank's performance.

#### 1.1.1 Origin of Bank in Nepal

Like other countries, landlords, moneylenders, merchant, goldsmith etc are the ancient bankers of Nepal. Through establishment of banking industry was very recent; some crude banking operations were in practice even in the ancient time. In the Nepalese chronicle, it was recorded that the new era known as Nepal Sambat was introduced by Shankhadhar, a Sudra merchant of Kantipur in 880 A.D. after having paid all the outstanding debts in the country. This shows the basic of money lending practice in ancient Nepal. The establishment of "Tejarath Adda" during the year1877 A.D. was the first step in institutional development of banking sector in Nepal. Tejarath Adda did not collect deposit from public but grated loans to public against the collateral of bullions. Consequently the major parts of the country remain untouched from these limited banking activities. The development of trade with India and other countries increase the necessity

of the institutional banker, which can act more widely to enhance the trade and commerce and touch the remote non-banking sector in the economy. Reviewing this situation, the 'Udyog Parishad' was constituted in 1936 A.D. One year after its formulation, it formulated the 'Company Act' and 'Nepal Bank Act' in 1937 A.D. Nepal Bank limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of Nepal with 10 million authorized capital. Being a commercial bank, it was natural that Nepal Bank limited paid more attention to profit generating business. But, it is the onus of government to look into neglected sectors too.

Having felt need of development of banking sector and to help the government formulate monetary policies, Nepal Rastra Bank was set up in 1956 A.D.[2013.01.14 B.S.] as a central under Nepal Rastra Bank Act 1956 A.D.[2012 B.S.]. Since then, it has been functioning as the government's Bank and has contributed to the growth of financial sector.

Being the central bank, NRB had its own limitation and reluctance of NBL to go to the un-profitable sectors was not illogical. To cope with these difficulties, government set up Rastriya Banijya Bank in 1966 A.D. [2022. 10.10 B.S.] as a fully government owned commercial bank. With the emergence of RBB, banking service spread to both urban and rural areas but customers failed to have taste of quality/ competitive service because of excessive political and bureaucratic interference. For industrial development, Industrial Development Center was set up in 1956A.D. [2013 B.S.] which was converted to Nepal Industrial Development Corporation [NIDC] in 1959 A.D. [2016 B.S.]. Similarly, Agricultural development Bank [ADB] was established in 1976 A.D. [2024.10.07] with an objective to provide agricultural products so that agricultural productivity could be enhanced through introduction of modern agricultural techniques.

After the restoration of democracy in Nepal, the government took the liberal policy in banking sector. As an open policy of the Nepal Government to get permission to invest in banking sector from private and foreign investor under commercial bank act 1974A.D.[2013B.S.], different private banks are getting permission to establish with the joint venture of other countries. Now a day, these are 20 commercial banks operating in Nepalese financial market.

#### **1.2** Statement of the Problem

A commercial bank is essentially a dealer in money. It is a financial institution, which receives deposits from public and invests it to business and enterprises against approved securities at certain rates of interest. Higher the investment on loans and advances higher will be the profit. Since investment is the major source of earning, the bank should invest as much as possible on loans and advances. But there are two major problems in front of economy, first to mobilize the greatest amount of saving for the development of the country and second, the collected saving have to be channelized in the productive sector in a planned way. The objective of domestic resource mobilization is essentially to finance development expenditure. Therefore, it is a great concern to our community to accumulate idle resource of the country and utilize them into productive uses and involve in development activities. On the one hand there is capital shortage in the country. It means, the financial resources required for various development opportunities, are not sufficient. As a result commercial banks are not making effort to attract the saving. But on the other hand the real problem is concerned with the utilization of collected resources. Such resources are sometimes looked up and not forwarded to desired sector of the country. Thus a gap is existing between the deposits collected and amounts spent on loan and advancement.

Although, joint venture banks are operationally more efficient, having better performance while comparing with local banks, but they face many problems. The main focus of statement of the problem will be toward the financial performance of Everest Bank Ltd. And Nabil Bank Ltd. one of the well-known joint venture banks, especially in the collection of deposit and their utilization. The present study helps to evaluate the financial performance and efficiency of Everest Bank Ltd. and Nabil Bank Ltd. in utilizing the funds that are collected from public and shows how the banks has been managing its position in relation to liquidity, activity, profitability, capital structure and capital adequacy.

## 1.3 Objectives of the Study

The primary objective of this study is to analyze the financial performance of Everest Bank Ltd. and Nabil Bank Ltd. However following are the specific objectives of the study:-

- a. To examine the financial performance of Everest Bank Ltd. and Nabil Bank Ltd.
- b. To examine the causes of gap existing between deposits and loan, investment etc.
- c. To evaluate the effectiveness of collection of deposits and their utilization.
- d. To provide suggestion and recommendation for the improvement of the future performance and maximum utilization of deposits.

### **1.4** Significance of the Study

Commercial banks in developing countries like Nepal have the greatest responsibility towards the economic development of the country. "In the present-day world in the developed and developing money economies, the vital process of production and consumption are significantly affected by the aggregate money supply consisting of the currency, demand and time deposit with banks" In modern times, Since credit or bank money or credit rather than changes in the total supply of the high powered money issued by the reserve held by the bank against their deposit liabilities that account for changes in the aggregate money supply. Gone are the old days when commercial banks were regarded as merely purveyors of money. They are today not merely purveyors of money but are also the creators or manufacturers of money in the system. It is the banks that set the tempo of the aggregate economic activity in the system. The main goal of the banks as a commercial organization is to maximize the surplus by the efficient use of its funds and resources. In spite of being a commercial institution, it too has a responsibility (obligation) to provide social service oriented contribution for the socio-economic enlistment to the country by providing specially considered loans and advancement towards less privileged sectors.

Hence, the study is needed to examine the financial performance of the bank especially in collection of deposits and utilization. This study will help to know the financial performance of Nabil Bank Ltd and Everest Bank Ltd. So it will be useful for managers, shareholders, customers, public and student who would conduct further study on performance analysis of Nabil Bank Ltd and Everest Bank Ltd.

## **1.5** Limitations of the Study

As every study has been conducted within certain limitations, thus the present study has the following limitations:

- a. This study is based only on the financial report i.e. Secondary data.
- a. This study has covered five-year period i.e. from 2006/07 to 2010/11.
- b. The study has not paid attention towards the funds flow, cash flow pattern etc.
- c. The data available in published annual reports have been assumed to be correct and true.
- d. Only limited financial tools and technique are used for analysis, so this study may not be sufficient for depth analysis.

### **1.6** Organization of the Study

The whole study is divided into five main chapters. The **first chapter** presents of introduction, statement of the problems, objective of the study, Significant of the study and limitation of the study.

The **second chapter** presents of review of literature. Review of related material like previous thesis, browser booklets, journals, articles and report, magazines etc will be done

The **third chapter** presents of research design, nature and source of data, method of data collection and method of analysis under research methodology.

The **fourth chapter** presents the collected data will be tabulated and analyzed by using various financial tools, mathematical and statistical tools under data presentation and analysis.

The **fifth chapter** presents of the brief summary of whole research report and conclusions. Its also provides some useful suggestion and recommendations to concerned parties.

# **CHAPTER-II**

## LITERATURE REVIEW

When researcher started to do research work, he/she should study different books, newspaper, magazine, journals, previous research work related to his/her topic, etc. to collect the necessary information. This process of studying different educational materials is known as review of literature. This chapter highlights the literature that is available in concerned subject as to my knowledge, research work, and relevant study on this topic, review of journals and articles and review of thesis work performed previously.

### 2.1 Conceptual Review

### 2.1.1 Financial Statement

Financial statements are the end product or out put of an accounting system designed and used in an organization. The inputs to this system are the business transactions or financial events taken place in the organization. These transactions or events are processed with generally accepted accounting principles and procedures in the course of their transformation into financial statements.

Financial statements include two basic statements: The income statement or profit and loss account and the position statement or balance sheet. The income statement reveals the performance of the organization during a particular period of time with the ascertainment of net profit or loss after matching the costs with the revenues of the period. The balance sheet states the assets, liabilities and owner's equity at the date of its preparation. There are two other financial reports which are frequently used along with the basic financial statements: the statement of retained earnings and cash flow statement. The statement of retained earnings indicates the magnitude and causes of changes in the firm's retained earnings due to the years activities.

Financial statement and reports provide information regarding the operating performance, financial health and the direction chosen by the firm to the different users of information both external and internal. Users of accounting information generally are; owners, management, creditors, investors, researcher, government, customers, employees, trade union etc.

The limitations of financial statements

a) Financial statements are based on historical cost of transactions involved. Unless and adjustment is made on them for general price level change over the period, they do not portray the current state of being.

b) Financial statement are prepared based the monetary involvement of the events or transaction. Events with no monetary involvement but having long-term implication on the performance and financial position of an organization like entry and exit of competitors; quality of the management team; cordiality, competency and commitment of employees etc. have no say in financial statements.

c) Financial statements incorporate several estimates made by different personnel's involved in the process selection of a particular method of charging depreciation, valuing closing stock, treating research and development expenditure etc. over the other method can influence the financial statements with a wider margin.

d) "Window-dressed" financial statements are of little use whatever the purpose behind such preparation might have been.

e) Financial statements are merely the interim reports, the actual and over all results being known only after the termination or closure of an organization.

### 2.1.2 Concept of Financial Performance

Financial performance analysis can be considered as a heart of the financial decisions. The growth and development of any enterprise is directly influenced by the financial policy. Rational evaluation of the financial performance of the financial management in public enterprises is too much involved in record keeping, raising necessary funds and maintaining relationship with the bank or other financial institutions. But financial aspect is one of the most neglected aspects of public enterprises in Nepal. However joint venture banks have analyzed financial performance for their corrective actions. But their analysis is limited within the banks themselves.

Financial performance as a part of the financial management is the main indicator of the success or failure of the firm. There are different institutions that affect or are affected by the decision of the firm. Financial condition of business firm should be sound from the

point of view of shareholders, debenture holders, financial institution and nation as whole.

Though the type of analysis varies according to the specific interest of the part involved, shareholders of the firm are concerned principally with the present and expected future earnings of other enterprise. This indicates that they concentrate their analysis on the profitability of the firm.

Management of the firm is interested in all aspects of financial analysis to adopt a good financial management system for the internal control of the enterprise. Similarly, trade creditors are primarily interested in the liquidity position of the firm. Long-term creditors are more interested in the cash flow ability of the enterprise to service debt over a long run. Similarly, all the concerned groups are directly or indirectly interested about the financial performance of the firm.

The absolute accounting figures are reported in the financial statement: the balance sheet, the profit and loss account and the other statements do not provide a meaningful understating of the performance and financial position of the firm. An accounting figure conveys meaning, when it is related to some other relevant information. A quantitative judgment about the firm's financial position and performance should be made from the point view of a firm's investment. Thus financial analysis is the main qualitative judgment process of identifying the financial strengths and weaknesses of the firm by properly establishing the relationship between the items of the balance sheet and profit and loss account.

Ratio analysis is a powerful tool of financial analysis. A ration is designed as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things". In financial analysis, ratio is used as a benchmark for evaluating the financial position and performance of a firm. (*Pandey: 1996; P.104*)

In the financial world, a bank's performance has mainly focused on financial performance decision. A commercial bank's performance is to be examined for various reasons. Bank regulators identify banks that are experiencing severe problems so that they can give remedy to them.

Joint venture banks in Nepal are profit making business institutions. So, the profit earned by a joint venture commercial bank in Nepal is the main financial performance indicator of the bank. However, it can not solely predict the performance of the bank by analyzing the profitability status only. Every aspect of the financial analysis is to be considered for financial performance of the bank. An analysis of income and expenditure and bankruptcy score of the bank is also the important indicators of the bank's performance.

### 2.2 Scenario of Commercial Bank

### 2.2.1 Concept of Commercial Bank

A bank is an institution, which deals in money, receiving it on deposit from customers, honoring customer's drawing against such deposit on demand, collecting cheque for customers and lending or investing surplus deposit until they are required for repayment.

Simply, commercial bank means the bank, which deals in exchanging currency, accepting deposit, giving loans and doing commercial transactions. According to black's Law Dictionary "Commercial bank means a bank authorized to receive both demand and time deposits, to engage in trust services, to issue letter of credit, to rent time deposit boxes, and to provide similar services."

According to commercial bank Act 2031 B.S.:

Commercial bank means a bank which operates currency exchange transactions, accepts deposits, provides loan: performs, dealing, relating to commerce except are banks which have been specified for the co-operative, agricultural, industry of similar other specific objectives.

Commercial banks are the major component in the financial system. They work as the intermediary between depositors and lenders and facilitate in overall development of the economy with major thrust in industrial development.

Commercial bank came into existence mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing and overall economic development. The bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society they are serving. A sound banking system is important because of the key roles it plays in the economy, intermediation maturity transformation, facilitating payments, flows, credit allocation and maintaining financial discipline among borrowers.

The main activities of commercial bank are as follows:

- i) Accepting various types of deposits from people, institution or company.
- ii) Providing loan to various productive sectors to earn a lot of profit from it.
- ii) Acting as agency functions.
- iv) Providing general utility functions.
- v) Providing overseas trending services.
- vi) Providing information and other services.

#### 2.2.2 Role of Commercial Banks in the Development of the Economy

In fact, the development of a country is linked with the economic development of that country. Economic development is connected with banking system. Without economic development, there is no possibility of raising the living standard of the people of that place. A great amount of capital needs to be utilized for the economic development. It is possible to utilize a great amount of capital only with the medium of commercial banks. Thus, we can say that development of the commercial banking system is the backbone of the economic development.

Commercial banks play and important role in directing the affairs of the economy is various ways. The operation of commercial banks records the economic pulse of the country. The size and composition of their transaction reflect the economic happening in the country. Commercial banks have played a vital role in giving the direction of economic growth over the time by financing the requirement of industries and trade in that country. By encouraging the thrift among the people, banks have fostered the process of capital formation in the country. In the context of deposit mobilization, commercial banks include the savers to hold their savings in the form of bank deposits thus help brining the scattered resources into the organized banking sector which and be allocated to the different economic activities. In this way, they help in country's capital assets formation. Through, their advances banks also help the creation of income out of which further saving by the community and further growth potentials emerge for the good of the

economy. In a planned economy, banks make the entire planned productive process possible by providing funds to the public sector, joint sector or private sector of any type of organization. All employment income distribution and other objectives of the plan as far as possible subsumed into the production plan which banks finance.

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

### 2.3 Review of Related Studies

#### 2.3.1 Review of Articles

In this section, effort has been made to examine and review of some related articles in different economic journal, discussion papers, magazines and other related books.

In the article of '*commercial banks comparative performance evaluation*' **Dr. Shrestha** (**1995**) the author has concluded about JVB as joint venture banks (JVB) are new operationally more efficient and having superior performance while comparing with local bank better performance of JVB is due to their sophisticated technology, modern banking method and skill. Their better performance is also due to burden the local banks are facing due to government banking policy in rural areas and financing public enterprises. Local banks are efficient and have expertise in rural sector. But having a number of deficiencies local banks have to face growing constraints of socio economic and political system on one spectrum and that of issues and challenges of JVB commanding significant banking business on the other spectrum. He has further said that the government's liberalization policy also encourages the traditionally run domestic banks to enhance their efficiency and competitiveness through modernization mechanization via computerization and prompt customer service by setting them to the exposure of JVB.

In the article "*financial system of Nepal*" **Mr. Thapa** (2005) expressed his view that the commercial banks including foreign joint venture banks seen to be doing pretty well in mobilizing deposits. Like wise loans and advances of these banks are also increasing. But compared to the high credit needs particularly by the newly emerging industries the bank

still seem to lack adequate funds. The banks are increasing their lending to non-traditional along with traditional sectors. He has also state that out of the commercial banks operating, NBL and RBB are operating with nominal profit, the later turning towards, negative from time to time, because of non recovery of accrued interest, the margin between interest income and interest expenses is declining. They have heavy burden of personal and administrative overhead. On the other hand, foreign joint venture banks are functioning in an extremely efficient way. They are making huge profit year after year. Because of their effective persuasion of loans recovery, overdue and defaulting loans have been limited resulting in high margins between interest income and interest expenses. At the end of this article, he concludes that by its very nature of public enterprise, domestic banks could not compete with the private banks, so only remedy to the problem is to handover the ownership as well as the management of these banks to the private hands.

In the article "*Nepal ma Banijya Bank Upalabdhi tatha Chunanti*" **Mr. Pradhan (1991)** concluded some major issue in local banks in comparison to recently established joint ventures banks. The study deals with whole banking system of Nepal in respect to their performance and profitability. Some of his findings relevant to this study are given as:

The deposit collection rate of local banks is very poor in comparison JVBs.

The patterns of deposit are also different between these banks. The ratio of current deposits in local banks is 9.34% only, where the same as the joint venture banks is 52.5%. But the fixed deposit ratio is very high in local banks.

In the article, "*Banking the future on competition*" **Mr. Sharma** (2002) has found the same results that the all commercial banks are establishing and operating in urban areas which achievements are as follows:-

Commercial banks are establishing and providing their services in urban areas only. They do not have interest to establish in rural areas. Only the branch of Nepal Bank Ltd and Rastriya Banijya Bank Ltd are running in those areas.

- Commercial banks are charging higher interest rate on lending.
- They have maximum tax concession.
- They do not properly analyze the credit system.

According to him, "Due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and on personal guarantee, whose negative side effect would show colors only after four or five years." He has further included that private commercial banks have mushroomed only in urban areas where large volume of banking transaction and banking activities are possible.

#### 2.3.2 Review of Books

**Pandey** (1996) in his book "Financial Management" has defined as "the financial statement provides a summarized view of the financial operation of the firm. Therefore, much can be learnt about a firm and careful examination of its financial statement as invaluable documents. The analysis of financial statement is thus important aid to financial analysis". To measure the bank's performance in many aspects, we should analyze its financial indicator with the help of financial statement.

In the word **Ahuja**, (1994) "Financial performance analysis is the study of relationship among the various financial factors in a business as disclosed by a single set of statement and a study of the trend of these facts as shown in a series of statement. By establishing a strategic relationship between the item of a balance sheet and income statement and others operative data, the financial analysis unveil the meaning and significance of such items.

According to **Metcalf and Titard** (**1993**) "Financial performance analysis is a process of evaluating the relationship between components parts of financial statement to be obtained a better understanding of a firm's position and performance."

In the words of **Van Horne (2001)** "Financial ratio can be derived from the balance sheet and the income statement. They must be analyzed on a comparative basis. A comparison of ratio of the same firm over time uncovers leading clues in evaluating changes and trend in the firm's financial condition and profitability. Ratio may also be judged in comparison with those of similar firms in the same line of business and when appropriate, with an industry average and we can look to further progress in regard".

## 2.3.3 Review of Previous Thesis

**Dhakal (2001),** conducted as study on "A comparative study of Financial Performance of Nepal SBI Bank Ltd. and Nepal Investment Bank Ltd. (NIBL)".

## **Main Objectives**

- To find out the Assets and Liabilities of sample banks.
- To find out the Eps, Dps, Mps and Bvps of sample banks.
- To examine the causes of gap existing between deposits and loan, investment etc.

## **Major Findings**

- NIBL's liquidity position is comparatively better than of Nepal SBI Bank Ltd.
  The current assets of these banks are adequate to discharge current liabilities.
- Nepal SBI Bank Ltd. is utilizing deposits more efficiently on loan and advance, investment and total outside assets than NIBL. Income generating assets of NIBL are higher than that of Nepal SBI Bank Ltd.
- Long-term debt to shareholders fund ratio, total debts to shareholders fund tatio, total debt to total assets ratios of Nepal SBI Bank Ltd. are greater than that of NIBL, which refers to the fact that Nepal SBI Bank Ltd.'s capital structure is more riskier than NIBL's.
- Banks are maintaining adequate capital funds to safeguard their depositors.
  Comparatively, NIBL has better position than Nepal SBI Bank Limited.
- Total interest earned to total outside assets ratio, return on risky assets ratio, return on shareholders fun ratio and return on total assets ratio of NIBL are better than Nepal SBI Bank Ltd. NIBL is adopting more aggressive lending investment and borrowing policy to generate more profits.
- Higher EPS of NIBL than Nepal SBI Bank Ltd. shows the effective use of NIBL's owners' equity than Nepal SBI though its EPS is increasing faster enough.
- Higher DPS of NIBL than Nepal SBI Bank Ltd. indicates the better performance of NIBL. Dividend attracts the shareholders towards the enterprise which consequently helps to increase the market value of the shares.

- JVBs in Nepal are retaining higher percentage of earnings and distributing lower dividend. NIBL is performance well by increasing its DPR than Nepal SBI Bank Limited.
- P/E ratio is the market appraisal of the firm's performance. Higher P/E ratio is better for the owners. Nepal SBI Bank Ltd. has higher P/E ratio than Nepal Investment Bank Limited.
- Market value per share to book value per share ratio refers to the price paid by the investors for a rupee of share. The higher ratio of Nepal SBI Bank Ltd. than Nepal Investment Bank Ltd. refers the better performance of Nepal SBI Bank Ltd.
- There is faster improvement and increasing trend in EPS, DPS, MPS, BVPS, P/E ratio, net profit, total deposit and loans and advances of Nepal SBI Bank Ltd. than Nepal Investment Bank Ltd. Some of the values for rate of change are positive and some are negative in NIBL, which indicates higher fluctuation in actual figures in different variables.

**Bohara (2002)** has conducted thesis research on "A Comparative study on investment Policy on Joint Venture banks and financial companies of Nepal"

## **Main Objectives**

- To examine the financial performance of sample banks in terms of Liquidity, Activity, Profitability, Leverage and capital adequacy ratios.
- To examine the causes of gap existing between deposits and loan, investment etc.
- To provide suggestion and recommendation for the improvement of the future performance and maximum utilization of deposits.

## The major findings are as follows:

• All the selected firms have not successfully been mobilization their deposits but the finance companies have mobilize their deposits smoothly in comparison with JVBs.

- The profitability position of all finance companies was better than that of JVBs.
- The liquidity position of all JVBs is comparatively better than that of finance companies.
- There is significant relationship between deposit and loan and advance of BOKL. Similarly there is significant relationship between deposits and total investments, total assets and net profit of Kathmandu finance company.
- The JVBs have less interest risk and capital risk in comparison to finance companies.

**Rana (2004)** has conducted thesis research on "An investment policy of joint venture banks in Nepal"

## Main Objectives

- To examine the financial performance of sample banks.
- To study the achievements of sample banks.
- To evaluate the effectiveness of collection of deposits and their utilization.

### The major findings are as follows:

- The mean ratio of investment of government securities to current assets of NB has been found lower than that of the other banks. Whereas, SCBNL has highest mean ratio in comparison with other banks. Likewise, NB's ratios are less homogenous.
- The mean ratio of total investment to total deposit/ ratio of SBI has lowest than other on the other hand SCBNL has the highest mean ratio. Moreover Everest bank ratios are more consistent.
- Investment on government securities to total financial investment ratios of NB has lowest mean ratio and SCBNL has highest meant ratio. SBI'S ratios are homogenous and NB has less homogenous.
- The mean ratio of investment on shares/debentures to total investment ratios of SCBNL has quite lowest ratio and NB highest. NB less n/homogenous ratio and NABIL has more homogenous ratio.

• The trend value of all JVBs has an increasing trend. It means if other things remaining same, JVBs will increase their investment in future.

Singh (2005), conducted a study on the "Financial performance of Bank of Kathmandu and NABIL Bank Ltd."

## Main Objectives:

- To find out the Assets and Liabilities of sample banks.
- To find out the Eps, Dps, Mps and Bvps of sample banks.
- To examine the causes of gap existing between deposits and loan, investment etc.

## **Major Findings:**

- In compare with BOK, NABIL is doing well. NABIL has invested most of its capital in profitable sectors. NABIL and BOK both have meet the normal; standard current assets ratio to meet the short term obligation of its customers.
- NABIL suffers less from loan provision than BOK due to efficient loan policy.
- Due to NABIL has more deposits of non bearing interest, it has low interest to its depositors and gain the profit from this interest also. While, BOK's interest bearing depositors are high and have paid the interest to them.
- To make the profit, BOK is taking a higher risk than NABIL by providing the higher portion of its deposit as a loan.
- During her study period, Altman's 1<sup>st</sup> and 2<sup>nd</sup> model of bankruptcy clearly revels that NABIL has no chance to failure and financial position also strength. It earned more profit and able to pay dividend to its shareholders even though it is fluctuated. EPS of NABIL is also good in market. BOK is also trying to do its best to generate the profit as well as making the place in completion banking sectors.

**Thapa** (2005), conducted a study on the *"Financial Performance of Commercial Banks in Nepal: A comparative study of Nepal Bank Ltd. and NABIL Bank Ltd"*.

## Main Objectives:

- To examine the financial performance of sample banks in terms of Liquidity, Activity, Profitability, Leverage and capital adequacy ratios.
- To examine the causes of gap existing between deposits and loan, investment etc.
- To provide suggestion and recommendation for the improvement of the future performance and maximum utilization of deposits.

## The research findings of the study are as follows:

- The activity ratio measuring the efficiency achievement towards the income generating activities of the NBL. The bank should invest all the excess balance of liquid fund in income generating sector.
- The net profit margin of NBL is negative which shows the bank is not able to utilize its deposit in profitable sector. It makes more problems to pay the interest of the depositors. So, the bank should invest its deposit in profit generation sectors, which could enhance the profit margin of the bank.
- NBL should move towards the modern banking facilities and prompt service in each branch and provide incentive and new product to attract relative growth trend of deposit.
- The NABIL is found to be centralized in urban areas. Since profitability is not only the sole objectives of the bank, it is recommended for NABIL to expand its branches in the rural areas for the upliftment of deprived communities as well as the economy of the nation. The joint venture banks are found to be interest to pay penalty than allocate priority sector credits. This negative attitude must be changed and devote oneself for uplifting the economic condition of the deprived community as its social responsibilities.
- Banks are recommended to activate foreign technology and investment in Nepal by means of their wide international banking sector and make Nepalese personnel capable of operating these banks as efficiently as international banks.

**Yadav** (2005) conducted a study on the "A study on comparative Financial Performance Analysis of Joint Venture Banks in Nepal".

## Main Objectives:

- To examine the financial performance of sample banks.
- To study the achievements of sample banks.
- To evaluate the effectiveness of collection of deposits and their utilization.

## The research findings of the study are as follows:

- Capital structure ratios of both banks are low. Debt portion is more used in NBBL but profitability position is lower than NABIL Bank Ltd.
- Both banks should be developed separately research and training department so that they would be able to study different aspect of management and supply practical suggestions to develop as an innovative approach in bank management and bank operation.
- The trends of total deposits, total investment, total income. Total expenses, total net income, interest expenses and interest earning of NBBL is exceptionally higher than NABIL Bank Ltd.
- NBBL is more risky bank than NABIL Bank Ltd. so, researcher recommended that portfolio situation should be carefully examined from time to time. The varied rate of return should be verified in such a way that balances the conflicting goal of maximum yield and minimum risk.
- It should be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and its customers. Comparatively NABIL profitability position is better than NBBL.

**Panta** (2005) has conducted the study on "Accounting Ratio Analysis: A comparative study of Everest Bank Ltd. and Nepal Industrial & Commercial Bank Ltd.

## Main Objective:

- To examine the financial performance of sample banks in terms of Liquidity, Activity, Profitability, Leverage and capital adequacy ratios.
- To evaluate the effectiveness of collection of deposits and their utilization.
- To examine the causes of gap existing between deposits and loan, investment etc.
- To provide suggestion and recommendation for the improvement of the future performance and maximum utilization of deposits.

## The research findings of the study are as follows:

- As concerns to liquidity ratios, NICB is found in better position than EBL.
- Relating to leverage ratios, EBL is found in a better position.
- As regards to profitability ratios, EBL has come out with better achievement; NICB is also in the improving trend.
- On account of other relevant ratios, NICB has been slightly well in comparison to EBL
- With reference to total assets management, EBL has accomplished better performance.
- As concerned to trend analysis of major balance sheet items, EBL has better outcomes.
- Relating to trend analysis of major profit and loss account items also, EBL obtained more positive results.
- With reference to trend analysis of cash flow items, in the first four years of the study period, NICB has better performance. In the last two year, both banks have witnessed net negative cash flows; that of EBL being less negative than NICB.
- As regards to the investment trend, NICB has regular growth on study period even though EBL has greater investments than the former.
- Regarding the trends in growth of total deposits, loan and advances and net profit, EBL has achieved slightly better efficiency.

**Sthapit** (2005) has conducted the study on *"Financial Performance of Nepalese commercial Banks in Nepal"*.

## Main Objectives

- To examine the financial performance of sample banks.
- To study the achievements of sample banks.
- To evaluate the effectiveness of collection of deposits and their utilization.

## The esearch findings of the study are as follows:

- The liquidity position of SCBL has better than other five banks NABIL, BOK, Nepal SBI Bank, NIBL and HBL in respect of current ratio standard should be 2:1. Although, this standard can not be maintained by all commercial banks. HBL has lower current ratio than other five banks.
- Nepal SBI Bank has better position than other five banks in the case of cash and bank balance with respect to total deposits. In contrast, a high ratio of cash and bank balance may indicates the bank's inability. Thus, in case of NABIL, HBL, NSBI, NIBL and BOK have invested their deposits fund in more productive sector like short-term investment, marketable securities etc. for improving their profitability.
- Cash and bank balance position with respect to deposits (excluding fixed deposit) in the case of NSBI has better performance against the readiness to serve its customer deposits than other five banks.
- NSBI has a high ratio of cash and bank balance percentage in respect of current assets. But other remaining five banks have low ratio than NSBI. NSBI's yearly average (19.44%) is higher than composite average (11.11%). Although, yearly average of BOK and NIBL have also covered more than composite average. In contrast, it is clearly seen that cash and bank balance percentage is lowest in case of SCBNL in comparison with other banks.
- Investment on government securities percentage in respect to current assets, in the case of SCBNL has certainly registered better than other fives banks. In the case of NIBL, it has very low ratio with respect of current assets among the six banks.

- Net profit to total assets ratio in the case of SCBNL has registered better performance by utilizing its overall resources than other five banks. NSBI has low percentage ratio than the other five banks.
- In the case of SCBNL, it has registered more percentage in respect of net profit to total deposits ratio than other banks i.e. NABIL, BOK, NIBL, NSBI and HBL. Comparatively, SCBNL could earn more profit over the deposit amount than other fives banks.
- SCBNL has appeared better achievement by mobilizing on resources of shareholders' equity than other five banks. This ratio reflects the profitability of the owner's investment of commercial banks. NSBI is not able to mobilizing shareholders equity than other five banks.
- Return on loan and advances in the case of SCBNL have appeared better achievement by mobilizing their loan and advances.
- Market price per share of SCBNL has occupied better performance in the competitive open market of investor expectation than other five banks, i.e. NABIL, HBL, NSBI, NIBL and BOK.
- In case of EPS, SCBNL has earned more profit to its shareholders last fifth year than other five banks. It has registered increasing trend of EPS during the study period.
- Price-earning ratio of commercial banks is generally fluctuating trend over the different fiscal years. NSBI has occupied better position with the respect to higher P/E ratio over the study period than other five banks. Therefore, NSBI reflects to the investors for confidence to their investment.
- Market prices to book value ratio of commercial banks are fluctuating trend over the last five different fiscal years. In the case of SCBNL has recorded highest position by securing high yearly average in the comparison of other five banks.
- Market rate of return of BOK is better than other five banks i.e. NABIL, SCBNL, HBL, NSBI and NIBL.

- The degree of relationship between deposits and loan and advances of the commercial banks are positive. Moreover, the coefficient of determination of BOK has registered higher value than other five banks.
- The degree of relationship between loan and advances and net profit of the all commercial banks are positive. Moreover, by considering the coefficient of determination of SCBNL has registered higher value than other five banks.

Choudhary (2009) conducted as study on "Investment Policy, a comparative study of Nepal Bangladesh Bank Ltd. & Himalayan Bank Ltd."

- To examine the financial performance of sample banks in terms of Liquidity, Activity, Profitability, Leverage and capital adequacy ratios.
- To evaluate the effectiveness of collection of deposits and their utilization.
- To examine the causes of gap existing between deposits and loan, investment etc.
- To provide suggestion and recommendation for the improvement of the future performance and maximum utilization of deposits.

## The research findings of the study are as follows :

- The liquidity position of NBBL is comparatively better than that of HBL.
- The assets management ratio of NBBL is comparatively better than that of HBL and HBL has the highest proportion of non performing loan and advance than NBBL.
- The profitability ratio of HBL is comparatively better than BBBL due o higher return on loan and advances ratio, return on equity ratio but HBL failed in total interest earned total outside ratio and total interest earned to total working fund ratio in comparison to NBBL.
- The degree of risk is high in NBBL due to highest credit risk and interest rate risk, which shows that NBBL has greater risk in credit recovery and in interest recovery in comparison to HBL.
- The trend of total deposit, total loan and advances, total investment and net profit of HBL is comparatively better than NBBL. But the main important fact is that the trend of Net Profit of NBBL shows a negative trend.

- Both banks are not effectively informative to their clients since the large percentage of the people doesn't know the services provided by the banks.
- The respondents of HBL selected "they are profit oriented only" as the first option whereas respondents of NBBL selected "they don't want to take the risk" as the first choice.

Laudari (2010) has conducted the study on "An Accounting Ratio Analysis of NABIL Bank Ltd. and Himalayan Bank Ltd."

- To find out the Assets and Liabilities of sample banks.
- To find out the Eps, Dps, Mps and Bvps of sample banks.
- To examine the causes of gap existing between deposits and loan, investment etc.

### The research findings of the study are as follows:

- As concerned to liquidity ratio, NABIL Bank is found in better position than HBL in terms of liquid funds to total deposits ratio, liquid funds to total assets ratio, investment on government securities to total investment ratio. HBL is found in better position relating to NRB balance to total deposits ratio, cash & bank balance to total assets ratio.
- Relating to profitability ratio, NABIL Bank is found in better position.
- Relating to leverage ratio, NABIL Bank has performed slightly better than HBL.
- Regarding activity ratios, NABIL Bank has scored over HBL.
- On account of other relevant ratios, NABIL Bank has performed better in non performing loans to total credit ratio, total operating expenses to total assets ratio, loan loss provision to total loan ratio, weighted average interest rate spread, core capital ratio and total capital fund ratio than HBL. In ratios like interest income to loan and advances ratio, interest income to total income ratio, HBL has performed better than NABIL Bank Ltd.
- As regards to trends analysis of major balance sheet items, HBL has better outcomes that NABIL Bank in terms of loan and advances and deposits.

- Regarding the trend analysis of major cash flow items, HBL has slightly better performance than NABIL.
- Net assets trend of HBL is better than that of NABIL Bank.
- Investment trend of HBL is better than that of NABIL Bank.
- Distribution of total assets in 2005/06 is better in NABIL Bank than that of HBL.

## 2.4 Research Gap

Research gap focuses that the researcher how much trying to give new things from his/her study with compare to previous studies held by different researcher. Due to changing the time and circulation of environment the previous and present may be different in many ways. This is a research gap between the present research and previous research. Though many affiliated researchers have been done in this area but these have been very few exclusive researchers on this subject.

To achieve the target goals of Financial Performance are not enough. To achieve target goals, Financial policies and acts must be implemented in effective manner. In Nepal more financial policies and acts are made but it is not implemented so the target goal is not achieved. Financial policy is an important part of the Bank who play vital role on economy in Nepal.

All the researchers mentioned in review of literature are concerned with the study of laws, provisions and structure of financial performance of commercial bank. Hence in this study overall commercial banks are taken in a definable way which makes sense. The selection of the banks is made here on the basis of commercial banks.

# **CHAPTER-III**

## **RESEARCH METHODOLOGY**

Research in common parlance refers to a search for knowledge is composed by 're' and 'search' where 're' means repeatedly or again and again and 'search' means to investigate or find. Research methodology is a way to systematically solve the research problem.

Research methodology may be defined as "a systematic process that is adopted by the researcher in studying problem with certain objective and view". In other word, research methodology describes the methods and process applied in the entire aspect of the study focus of data, data gathering instrument and procedure, data tabulating and processing and methods of analysis. It is really a method of critical thinking by defined and redefining the problems, formulating hypothesis or suggested solution and collecting and organizing and evaluating data, making deduction and making conclusions.

Research methodology is a path from which we can solve research dilemma systematically to accomplish the basic objective of the study. It consists of a brief explanation of research design, nature and sources of data, method of data collection and methods of tools used for analyzing data.

### **3.1** Research Design

A research design is the arrangement of conditions for collection and analysis of data that aim to combine relevance to the research purpose with economy in procedure. Research design in the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to objective of this study. To achieve the objective of this study, descriptive and analytical research design has been used.

It is the process which gives us an appropriate way to reach research goal. It includes definite procedures and techniques which guide in sufficient way for analyzing and evaluating the study. This study is carried out by using both quantitative and qualitative analysis methods. Mostly, secondary data has been used for analysis, but the discussion and personal interview with the concerned employees of the selected banks are also used for qualitative analysis. Hence, research design of this study is based on descriptive and analytical method.

#### **3.2 Population and Sample**

The population refers to the industries of the same nature and its services and product in general. Thus, total of 32 commercial banks operating in Nepal constitute the population of the data and the bank under study constitutes the sample for the study. Among them only two banks are selected as the sample banks to carry out the study.

a) Everest Bank Ltd.

b) NABIL Bank Ltd

#### 3.3 Nature and Source of Data

For the purpose of this study, data are collected mainly from the secondary as well as primary sources. In the study two types of data are collected which are:

#### **Primary Data**

This is the first hand information bearing on any research which has been collected by the researcher or his agents or assistant. These are original observation collected for the first time. Such data facilitate original investigation and observation leading to useful and valuable result.

#### Secondary Data

The next method of collecting the data is secondary source. The secondary data are based on the second hand information. Secondary data were gathered much more quickly than primary. Secondary source were bulletins and newspapers of selected banks, annual reports, official document, reference material collected from library.

### 3.4 Method of Data collection

It indicates the sources of data and how they collected. In this study data are collected through published sources. They were collected from the correspondent offices and their respective websites.

After collecting data, as necessarily required, they were separated and analyzed presentation and analysis of the collected data is the main theme of the research work. Collected raw data were first presented in systematic manner in tabular forms and then analyzed by applying different financial and statistical tools to achieve the research

objectives. Besides these, some graph, charts and tables have been presented to analyze and interpret the finding of the study

## 3.5 Method of Data Analysis

Various financial and statistical tools will be used to complete the research study such as ratio analysis, mean, standard deviation, coefficient of variance etc. For presentation purpose, different types of tables, charts, figures and graphs are used as per necessary.

## 3.5.1 Financial Tools

Financial analysis is the process of identifying the financial strengths and weaknesses of the organization by properly establishing relationships between the items of the balance sheet and the profit and loss account.

Ratio analysis is a powerful tool of financial analysis. A ration is designed as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things". In financial analysis, ratio is used as a benchmark for evaluating the financial position and performance of a firm.

Several ratios, calculated from the accounting data, can be grouped into various classes according to the financial activity and function to be evaluated.

## 3.5.1.1 Liquidity Ratios

Liquidity ratios are used to judge the ability of banks to meet its short term liabilities those are likely to mature in the short period. With the help of liquidity ratios much insight can be obtained into present cash solvency of the banks and its ability to remain solvent in the event of adversities, it is the measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations.

The following ratios are evaluated under liquidity ratios:

### a) Current Ratio

This ratio indicates the ability of the bank to meet its current obligation. This is the main important tool to measures the liquidity position of the financial institution.

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

### b) Cash Reserve Ratio

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to take immediate payment to the depositor. It is computed as follows:

Cash Reserve Ratio =  $\frac{\text{Cash and Bank Balance}}{\text{Total deposit}}$ 

#### c) Cash and Bank Balance to Total Assets Ratio

Cash and bank balances are the most liquid assets held by a bank. This ratio reflects the proportion of cash and bank balance out of total assets. It is calculated by dividing cash and bank balance by total assets.

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

#### d) Investment on Govt. Securities to Current Assets Ratio

This ratio shows that how much amount has been the part of the total current assets on investment on government securities which is risk free assets. This ratio is calculated by dividing the investment on government securities by current assets which is shown as follows:

Investment on Govt. securities to current assets ratio =  $\frac{\text{Investment on Govt. Securities}}{\text{Current Assets}}$ 

### 3.5.1.2 Capital Structure Ratios

Capital structure ratio shows the long-term solvency or liquidity position of a firm. It indicates whether the firm is financially sound or solvent as far its long-term obligations are concerned. These ratios measure the firm's ability to pay the interest regularly and to repay the principal on the due date. These ratios are also known as solvency ratios or capital structure ratios.

Long-term solvency of a firm can be measured by the following ratio:

#### a) Debt to Total Asset ratio

This ratio by relating creditorship fund with owner's fund, it reflects the proportions of long-term debt contributed by creditors and owners to finance the total assets of the firm. The debt to total assets ratio is calculated by dividing Long-term debt by total assets.

Debt to total asset ratio  $= \frac{\text{Long-term debt}}{\text{Total assets}}$ 

#### b) Debt-equity Ratio

Debt-equity ratio shows the relationship between debts and Shareholders' fund. It is a test of long-term solvency of a firm. It measures the relative claims of creditors and owners against the assets of the firm. The objective of computing this ratio is to judge the effectiveness of the long-term financial policy of the business. This ratio is computed by dividing the long-term debts or total debts by the shareholder's funds.

Debt-equity Ratio  $= \frac{\text{Long-term debts}}{\text{Shareholders equity}}$ 

#### c) Debt to Capital Employed Ratio

Debt to capital employed ratio shows the quantitative relationship between debt and capital employed of a company. This ratio helps to establish a link between funded debt and total long-term funds available in the firm. This ratio is computed by dividing the total debts by the capital employed.

Debt to total capital ratio  $= \frac{\text{Total debts}}{\text{Capital employed}}$ 

### d) Loan and Advances to Current Asset Ratio

Loans and advances to current assets ratio measure the extent to which the banks are successful in utilizing the outsiders' funds for the profit generating purpose. The following formula is used to determine the loans and advances to current asset ratio.

Loan and advances to Current asset ratio =  $\frac{\text{Loan and advances}}{\text{Current Asset}}$ 

#### e) Debt-Share Capital Ratio

Debt-share capital ratio shows the relationship between debts and total share capital. It is a test of long-term solvency of a firm. This ratio is computed by dividing the long-term debts or total debts by the share capital.

Debt-Share Capital Ratio  $= \frac{\text{Total debts}}{\text{Share Capital}}$ 

#### 3.5.1.3 Activity Ratios

For smooth operations, a firm needs to invest in both short-term and long-term assets. Activity ratios describe the relationship between the firm's level of operations and assets needed to sustain the activity. Activity ratios can also be used to forecast a firm's capital requirements. Activity ratios enable the analysis to forecast these requirements and to assess the firm's ability to acquire the assets needed to sustain the forecasted growth. The following ratios can be calculated as the activity ratios.

### a) Fixed Assets Turnover Ratios

The rate of utilization of fixed assets is critical because investments in plant and equipment are both large and of long duration. Therefore, the fixed assets turnover ratio refers to how effectively and efficiently the fixed assets are used. It can be calculated as:

Fixed Assets Turnover Ratios =  $\frac{\text{Total Income}}{\text{Fixed Assets}}$ 

### b) Total Assets Turnover Ratios

The total assets turnover ratio reflects the efficiency of management for investments in each of the individual assets items. It shows the effective utilization of assets in the generation of income. It can be calculated as:

Total Assets Turnover Ratios =  $\frac{\text{Total Income}}{\text{Total Assets}}$ 

### c) Capital Employed Turnover Ratios

This ratio shows the relationship between total income and capital employed. It determines the efficiency in the utilization of total permanent capital in the revenue

generation. Higher the capital employed turnover ratios, the better and efficient utilization of the capital employed. It can be calculated as:

Capital Employed Turnover Ratios =  $\frac{\text{Total Income}}{\text{Capital Employed}}$ 

### d) Investment Turnover Ratio

This ratio shows the relationship between total income and investment. It determines the efficiency in the utilization of total investment in the revenue generation. It can be calculated as:

Investment Turnover Ratios =  $\frac{\text{Total Income}}{\text{Investment}}$ 

## e) Cash & Bank Balance Turnover Ratio

This ratio shows the relationship between total income and cash & bank balances. It is the efficiency ratio of the banks in managing and utilizing its cash and bank balances. It can be calculated as:

Cash & Bank Balance Turnover Ratios =  $\frac{\text{Total Income}}{\text{Cash & Bank Balance}}$ 

### f) Loan and Advances to Total Deposit Ratio

Loans and advances to total deposits ratio measures the extent to which the banks are successful in utilizing the outsiders' funds for the profit generating purpose. It can be calculated as:

Loan and advances to total deposit ratio =  $\frac{\text{Loan and advances}}{\text{Total deposits}}$ 

## g) Investment to Total Deposit Ratio:

This implies the utilization of firm's deposit on investment in government securities and share debentures of other companies. Investment is one of the forms of credit created to earn income. It can be calculated as:

Total Investment to total deposit ratio  $= \frac{\text{Total Investment}}{\text{Total Deposit}}$ 

## h) Income to Total Cost

The ratio of Total Income to total cost measures the cost control capacity of selected banks from its incomes. It can be calculated as:

Total Income to Total Costs =  $\frac{\text{Total Income}}{\text{Total Costs}}$ 

## 3.5.1.4 Profitability Ratios

"A company should earn profit to survive and grow over a long period of time Profits are essential, but it would be wrong to assume that every action initiated by management to company should be aimed at maximizing profits."

Profitability ratios indicate the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the operating efficiency of business enterprises. Through profitability ratio the lenders and investors want to decide whether to invest in a particular business or not.

## a) Return on Loans & Advances

This ratio shows that return on loans and advances during the year. Higher ratio of net income to loans & advance is better. It ratio is calculated as follows:

Return on Loans and Advances =  $\frac{\text{Net profit after tax}}{\text{Loan and Advance}}$ 

### b) Return on Total Weighted Risk Assets

The ratio of return on total weighted risk assets is useful in measuring the profitability of all financial resources invested in the banks risk assets. Generally higher rate of interest is charged on risk assets, so higher the investment on this risk asset higher will be return. The formula for the return of on total weighted risk assets is given in the following manner

Return on total weighted risk assets =  $\frac{\text{Net profit after tax}}{\text{Total weighted risk assets}}$ 

#### c) Return on Total Deposit

The ratio of return on Total deposit measures the capacity of bank to generate profit from its investment on total deposit. In other words, return on total deposit is the contribution of total deposit to net profit after tax. So this ratio is the proportion of return from total deposit and it is calculated as follows.

Return on total deposit =  $\frac{\text{Net profit after tax}}{\text{Total Deposit}}$ 

## d) Return on Total Assets

This ratio is measured the rate of return earned by the firm as a whole for all its investors. It is calculated by dividing net profit by total assets. A higher ratio indicates the efficiency of overall financial resources to invest. So that, the higher ratio, the better will be the performance. Return on total assets in computed by using the following formula.

Return on Total Assets =  $\frac{\text{Net profit after tax}}{\text{Total Assets}}$ 

#### e) Return on Shareholder's Equity

This ratio is measure of profitability of the firm in respect of the utilization of total shareholders fund. It is calculated by dividing net profit by total shareholder's equity. The shareholder's equity includes paid up capital, general reserves, and retained earnings of surplus & general loan loss provision. It reflects whether the corporation has earned a satisfactory return for its equity-holders of not. So, higher ratio is favorable of the stockholders.

Return on Total shareholder =  $\frac{\text{Net profit after tax}}{\text{Total shareholder's equity}} \ge 100\%$ 

### f) Return on Investment

The ratio of return on investment is useful in measuring the profitability of all financial resources invested in the banks. The formula for the return on investment given in the following manner:

Return on Investment =  $\frac{\text{Net profit}}{\text{Investment}}$
#### g) Return on Capital Employed

This ratio establishes a relationship between the total earnings available to all the investors and permanent capital. It shows how well the firm has used the economic resources received from all the investors to earn profit. This ratio is calculated as:

Return on Capital Employed =  $\frac{\text{NPAT}}{\text{Capital Employed}}$ 

## h) Earning Per Share

Earning per Share measures the profit available to equity shareholders on per share basis. This ratio expresses the earning power of the company in terms of a share held by the equity shareholders. This ratio is computed by dividing the net profits after preference dividend by the number of equity shares outstanding. It is expressed in rupee figure.

Earning Per Share (EPS) =  $\frac{\text{Net Profit}}{\text{No. of Equity Shares}}$ 

#### 3.5.2 Statistical Tools

Some important statistical tools are used to achieve the objective of the study. In this study, statistical tools such as mean, standard deviation, and co-efficient of variance has been used.

## 3.5.2.1 Arithmetic Mean

Arithmetic mean is an average of a given set of data this is divided by the number of Observation/years. The arithmetic mean (AM) is denoted by  $\overline{X}$ .

Mean 
$$(\bar{X}) = \frac{\sum X}{n}$$

n = Number of Year

 $\sum X =$ Sum of X series

#### 3.5.2.2 Standard Deviation

The coefficient of variation is the most commonly used measure of relative variation. It is used in such problems where the researcher wants to compare the variability of more than two years. Greater the C.V, the variable or conversely less consistent, less uniform, more consistent, more uniform, more stable and homogeneous.

Standard Deviation (
$$\sigma$$
) =  $\sqrt{\frac{\Sigma d^2}{n}}$ 

Where,  $d = X - \overline{X}$ 

#### 3.5.2.3 Coefficient of Variance

The coefficient of variation is the most commonly used measure of relative variation. It is used in such problems where the researcher wants to compare the variability of more than two years. Greater the C.V, the variable or conversely less consistent, less uniform, more consistent, more uniform, more stable and homogeneous.

Coefficient of Variance (CV) = 
$$\frac{\sigma}{\overline{X}} \times 100$$

#### 3.5.2.4 Coefficient of Correlation

This statistical tool has been used to analyze, identify and interpret the relationship between two or more variables. It interprets whether two or more variables are correlated positively or negatively. Statistical tool analyses the relationship between those variables and helps the selected banks to make appropriate financial performance regarding to profit maximization and deposit collection; fund mobilization through providing loan and advances.

For the purpose of decision-making, interpretation is based on following term:

- When r = 1, there is perfect positive correlation.
- When r = -1, there is perfect negative correlation.
- When r = 0, there is no correlation.
- Nearer the value of r to +1, closer will be the relationship between two variables and nearer the value of r to 0, lesser will be the relationship.

Coefficient of Correlation (r) =  $\frac{d_1 d_2}{\sqrt{\Sigma d_1^2 . \Sigma d_2^2}}$ 

Where,

$$\mathbf{d}_1 = \mathbf{X}_1 - \mathbf{\overline{X}}_1$$

$$\mathbf{d}_2 = \mathbf{X}_2 - \mathbf{\overline{X}}_3$$

Under this topic, Karl Pearson's correlation coefficient is used to measure the degree of relationship between the following variables:

- a) Coefficient of correlation between Total Deposit and Net Profit
- b) Coefficient of correlation between Total Deposit and Total investment
- c) Coefficient of correlation between Total Deposit and Loan & Advances

## **CHAPTER-IV**

## DATA PRESENTATION AND ANALYSIS

## 4.1 Financial Analysis

Introduction, review of literature and research methodology are presented in the previous chapters that provide the basic inputs to analyze and interpret the data. Presentation and analysis of data is the main body of the study. In this chapter collected data are analyzed and interpreted as per the stated methodology in the previous chapter. The main sources of data are secondary data, which are mainly related to the financial performance of EBL and Nabil.

## 4.1.1 Liquidity Ratio

Commercial bank must maintain its satisfactory liquidity posting to satisfy the credit needs of community, to meet demands for deposit—withdrawals, pay maturity obligation in time and convert non-cash assets into cash to satisfy immediate needs without loss to bank and consequent impact on long-run profit. Liquidity ratio is mainly used to analyze the short-term strength of commercial banks.

## 4.1.1.1 Analysis of Current Ratio

This ratio measures the liquidity position of the commercial banks. It indicates the ability of Banks to meet the current liquidity.

Under Table 4.1 shows the current ratio of selected commercial banks during the study period. In the case of EBL the C.R. is high in 2009/10 i.e 1.41, NABIL has high in 2009/10 i.e. 8.22, In an average, liquidity position of NABIL is greater than EBL others sample banks i.e. 7.96. Due to high mean ratio NABIL is better than others banks.

### **Table: 4.1**

Banks	EBL	NABIL
F/Y		
2006/07	1.39	7.82
2007/08	1.35	7.86
2008/09	1.25	7.88
2009/10	1.41	8.22
2010/11	1.01	8.05
Total	6.41	39.83
Mean	1.28	7.96
S.D	0.16	0.17
C.V	0.13	0.02

#### **Current Assets to Current Liability (in times)**

Source: Annual Report of sample banks

from the above analysis it is known NABIL have better liquidation position that then EBL. have not good liquidation position because the standard ratio is 1:1 where only NABIL meet that. Generally, banks require more liquid assets with compare to current liabilities in order to provide better bank service but only NABIL is in better liquidity position than liquidity position of other sample banks.

#### 4.1.1.2 Cash and Bank Balance to Total Deposit Ratio

Cash and Bank Balance to Total Deposit Ratio indicates the bank ability to meet their daily requirement of depositors. Higher ratio shows the greater ability of the firms to meet customer demands on their deposits. Following table shows cash and bank balance to total deposit of sample banks during the study period.

#### Table No. 4.2

Banks	EBL	NABIL
F/Y		
2006/07	0.13	0.12
2007/08	0.11	0.16
2008/09	0.18	0.18
2009/10	0.21	0.14
2010/11	0.15	0.15
Total	0.78	0.75
Mean	0.16	0.15
S.D	0.04	0.02
C.V	0.25	0.14

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

Source: Annual Report of sample banks

Above Table revels that the Cash and Bank Balance to Total Deposit Ratio of sample banks where all sample banks are in fluctuating trend. The highest ratio of EBL and NABIL are 0.21 time in FY 2009/10 and 0.18 in FY 2008/09 respectively. Similarly, the lowest ratio of EBL and NABIL respectively in different year.

The mean ratio of EBL and NABIL are 0.16 times and 0.15 times respectively. EBL has higher ratio than the other sample banks, which shows its greater ability to pay depositors money as they want. Similarly, EBL have highest sd 0.04 times and Nabil have 0.02 times.

The above analysis has to conclude that the cash and bank balance position of EBL with respect to NABIL is better in order to serve its customer's deposits. It implies the better liquidity position of EBL from the viewpoint of depositor demand but NABIL is also near about EBL. In contrast a high ratio of cash and bank balance may be undesirable which indicates the bank's inability to invest its funds income generating areas. Thus EBL should invest in more productive sectors like short-term marketable securities insuring enough liquidity which will help the bank to improve its profitability.

#### 4.1.1.3 Cash and Bank Balance to Current Assets Ratio

Cash and Bank Balance are the most liquid or quick assets. Cash and bank balance to current assets ratio represents the liquidity capacity of the firms as per cash and bank balance. Higher the ratios, better the ability of the firms to meet the daily cash requirement of their customers. But high ratio is not so preferred to the firms because firms have to manage the cash and bank balance to current asset ratio in such manner that firm may not be paid interest on deposits and may not have liquidity crisis.

Following the states the cash and bank balance to current assets of sample banks during the study period.

#### Table No. 4.3

Banks	EBL	NABIL
F/Y		
2006/07	0.12	0.11
2007/08	0.11	0.16
2008/09	0.18	0.14
2009/10	0.20	0.12
2010/11	0.14	0.13
Total	0.76	0.66
Mean	0.15	0.13
S.D	0.04	0.02
C.V	0.27	0.14

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

Source: Annual Report of sample banks

Above table reveals that cash and bank balance to current assets ratio of EBL and NABIL is in fluctuating trend. The mean ratio and sd of EBL is higher than Nabil. The higher mean ratio shows EBL's liquidity position is better than that of others banks. That indicates that it has more inconsistency in the ratios in comparison to others.

Regarding the above analysis, it can be concluded that EBL has a little bit better ability to meet daily cash requirements of their customers but there is not any fix policy to maintain the standard ratio of cash balance over the period of both sample banks.

#### 4.1.1.4 Investment on Government Securities to Current Assets Ratio

This ratio examines that portion of a commercial bank's current assets, which is invested on different government securities. More or less, each commercial bank is interested to invest their collected funds on different securities issued by government in different times to utilize their excess funds and for other purpose. Although those securities can be sold easily in the financial market or they can be converted into cash, they are liquid assets like cash and bank balance. It shows the portion of current assets to banks that are invested on various securities. Government securities are the more secured investment alternatives. These securities are also called risk less investment but less return is generated than others risky assets.

Banks	EBL	NABIL
F/V		
171		
2006/07	0.18	0.35
2007/08	0.12	0.20
2007/08	0.13	0.29
2008/09	0.10	0.27
2009/10	0.07	0.27
2010/11	0.11	0.24
2010/11	0.11	0.24
Total	0.48	1.41
Mean	0.12	0.28
	0.04	0.04
S.D	0.04	0.04
C V	0.35	0.35
C. V	0.55	0.55

Table No. 4.4Investment on Government Securities to Current Assets

Source: Annual Report of sample banks

Above table shows investment on government securities to current assets ratio of sample banks. EBL have fluctuating type ratios and NABIL is in decreasing trend. The table shows the highest ratio of EBL is 0.18 times in FY 2006/07 and lowest is 0.07 times in FY 2009/10. In the same way, the ratio of NABIL is 0.35 times in FY 2006/07 and lowest is 0.24 times in FY 2010/11.

The mean ratio of EBL is 0.12 i.e. 12 percent which is lower than the mean ratio of NABIL 0.28 i.e. 28 percent. It means NABIL has invested more money in risk free assets than that of other sample banks. In another words in other word less mean ratio means it has emphases on more loan and advances and other short term investment than investment in govt. securities. For minimization of investment risk, other banks should divert its investment in govt. securities. Similarly, S.D. and C.V is similar of EBL and NABIL i.e 0.04 and 0.35 respectively.

## 4.1.1.5 Loan and Advances to Current Assets Ratio

To make a high profit mobilizing its fund in the best way, a commercial bank should not keep its all collected funds as cash and bank balance but they should be invested as loan and advances to the customers. In the present study loan & advances represent to local and foreign bills discounted and purchased and loans, cash credit and overdraft in local currency as well as inconvertible foreign currency.

Banks	EBL	NABIL
F/Y		
2006/07	0.69	0.32
2007/08	0.73	0.33
2008/09	0.70	0.32
2009/10	0.71	0.33
2010/11	0.37	0.25
Total	3.21	1.55
Mean	0.64	0.31
S D	0.15	0.02
5.0	0.13	0.05
C.V	0.24	0.11

#### Table No. 4.5

### Loan and Advances to Current Assets

Source: Annual Report of sample banks

Table no. 4.5 shows the total mean, standard deviation and coefficient of variation of loan & advances to current assets ratio of commercial banks. Through this table loan & advances to current assets ratios of the sample CBS are analyzed. In case of NABIL loans

and advances to current asset ratios are in decreasing trend and after FY 2008/09 it started to increase in decreasing trend. Similarly EBL ratio has fluctuating trend.

#### 4.1.2 Assets Management Ratio

A commercial bank must be able to manage it's assets very well to earn high profit, so to satisfy it's customers and for own existence. Assets management ratio measures how efficiently the bank manages the resources at its commands. Through following ratios, assets management ability of banks has been measured.

#### **4.1.2.1** Loan and Advance to Total Deposit Ratio

This ratio actually measures the extent to which the banks are successful to mobilize the total deposit on loan and advances for the purpose of profit generation. A higher ratio of loan and advances indicates better mobilization of collection deposit and vice-versa. But it should be noted that too high ratio might not be better from its liquidity point of view. Following Table shows the loan and advances to total deposit ratio of related banks.

Banks	EBL	NABIL
F/Y		
2006/07	0.75	0.67
2007/08	0.76	0.67
2008/09	0.72	0.74
2009/10	0.75	0.70
2010/11	0.76	0.77
Total	3.73	3.53
Mean	0.75	0.71
S.D	0.02	0.04
C.V	0.02	0.06

Table No. 4.6Loan and Advance to Total Deposit

Source: Annual Report of sample banks

Above table shows that the loan and advances to total deposit ratio of EBL is in fluctuating trends and NABIL is increaseing trends except 2009/10. EBL has higher ratio than other banks in study period ie 0.75. It indicates the better mobilization of deposit by

EBL. It reveals that the deposit of EBL is quickly converted in to loan and advances to earn income. According to NRB directives above 70% to 90% of loan and advances to total deposit ratio is able to better mobilization of collected deposit. So all of the year the EBL and Nabil has met the NRB requirement or it has utilized its deposit to provide loan.

The mean, S.D. and C.V of NABIL is 71%, 0.04 and 0.062 and similarly, EBL has 0.75, 0.02 and 0.027.

#### 4.1.2.2 Total Investment to Total Deposit Ratio

Commercial banks and financial companies invest their collected funds in various government securities and other financial or non-financial companies. This ratio measures how successfully and efficiently the banks are mobilizing their funds on investment in various securities. This ratio of sample banks are calculated and presentation below.

Banks	EBL	NABIL
F/Y		
2006/07	0.20	3.83
2007/08	0.14	3.11
2008/09	0.10	0.29
2009/10	0.07	0.30
2010/11	0.12	0.26
Total	0.62	7.80
Mean	0.12	1.56
S.D	0.047	1.77
C.V	0.37	1.13

Table No. 4.7	
Total Investment to Total Deposi	it

Source: Annual Report of sample banks

Above table shows that total investment to total deposit ratio of EBL and NABIL. Both banks have fluctuating trend of total investment to total deposit ratio. Higher ratio of EBL is 0.20 percent in FY 2006/07 and lowest ratio is 0.07 percent in FY 2009/10 and in the

same way the highest ratio of NABIL 3.83% percent in FY 2006/07 and lowest ratio is 0.26% percent in FY 2010/11.

The mean ratio of EBL and NABIL is 0.12 and 1.56 respectively so NABIL has higher ratio. It signifies NABIL has successfully allocated its deposit in investment portfolio. The C.V. also higher than others.

## 4.1.2.3 Loan and Advances to Total Assets Ratio

A commercial bank's working fund plays very active role in profit generation through fund mobilization. This ratio reflects the extent to which the banks are successful in mobilizing their total assets on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of funds as loan and advance and vice-versa. The following table shows loan and advances to total assets of sample banks as follows.

Banks	EBL	NABIL
F/Y		
2006/07	0.64	0.57
2007/08	0.68	0.58
2008/09	0.65	0.63
2009/10	0.67	0.62
2010/11	0.67	0.65
Total	3.30	3.05
Mean	0.66	0.61
S.D	0.02	0.04
C.V	0.0250	0.0589

Table No. 4.8

Loan and Advances to Total Assets

Source: Annual Report of sample banks

Above table shows the loan and advances to total assets ratio of sample banks during the study period. Loan and advances to total assets of EBL and NABIL are in fluctuating trend. While observing their ratios; EBL is better mobilizing of fund as loan and advances and it seems quite successful in generating higher ratio in each year. The mean S.D and

C.V of EBL and NABIL are 0.66%, 0.02%, 0.025% and 0.61, 0.04 and 0.0589 respectively.

## 4.1.2.4 Investment on Government Securities to Total Assets ratio

It is not possible to apply all collection, deposit and other resources in to loan and advances for the banks. Therefore, they arrange their total assets in various sectors. Among all possible sectors, investment on government securities is one, which is very less risky. Invest on government securities to total assets ratio measures how successfully selected banks have applied their total assets on various forms of government securities in profit maximization and risk minimization point of view. The higher ratio represents the better position of fund mobilization into investment on government securities and vice-versa.

#### Table No. 4.9

Banks	EBL	NABIL
F/Y		
2006/07	0.17	0.15
2007/08	0.12	0.10
2008/09	0.09	0.04
2009/10	0.07	0.11
2010/11	0.10	0.11
Total	0.55	0.52
Mean	0.11	0.10
S.D	0.04	0.04
C.V	0.3483	0.3768

#### **Investment on Government Securities to Total Assets**

Source: Annual Report of sample banks

Above table shows that the investment on government treasury bills to Total assets of EBL and NABIL are in fluctuating trend. The highest ratio of EBL and NABIL are 0.17% and 0.15%, respectively. The lowest ratio EBL and NABIL are 0.07% and 0.04% respectively.

From the table we notice that mean ratio of EBL and NABIL are 0.11% and 0.10% respectively. The mean of EBL is has higher than NABIL. It means EBL has invested more money in risk free assets than that of others Nabil. In another words EBL has emphases on more loan and advances and other short-term investment than investment in govt. securities. For minimization of investment risk, EBL should divert its investment in govt. securities.

#### 4.1.3 Profitability Ratio

The major performance indicator of any firm is profit. The objective of investment policy is to make good return. Any organization has to desire of earning high profited which helps to survive the firm and indicates the efficient operation of the firm. Profit is the essential part of business activities to meet internal obligation, overcome the future contingencies, make a good investment policy, expand the banking transaction etc. Profitability ratios are the best indicators of overall efficiently. Here, those ratios are presented and analyzed which are related with profit as well as fund mobilization. Through the following ratios, effort has been made to measure the profit earning capacity of EBL and NABIL.

## 4.1.3.1 Return on Loan and advances

Every financial institution tries to mobilize their deposits on loan and advances properly. So this ratio helps to measure the earning capacity selected banks. Returns on loan and advances ratio of selected banks are presented as follows.

#### Table No. 4.10

Banks	EBL	NABIL
F/Y		
2006/07	0.022	0.043
2007/08	0.025	0.035
2008/09	0.027	0.037
2009/10	0.030	0.035
2010/11	0.030	0.035
Total	0.133	0.186
Mean	0.027	0.037
S.D	0.004	0.004
C.V	0.1359	0.0954

## **Return on Loan and advances**

Source: Annual Report of sample banks

Above table shows that return on loan and advances ratio of EBL is in increasing trend and NABIL is in fluctuating trend. The highest ratio of EBL is 0.03% in the year 2009/10 and 2010/11 and lowest ratio is 0.02% in year 2006/07. The mean ratio is 0.027%.Whereas highest ratio of NABIL is 4.3% in year 2006/07 and lowest ratio is 3.5% in above three years. These both sample banks show the normal earning capacity in loan and advances and same earning capacity in form of loan and advances.

From the table we notice that NABIL has higher ratio of average in the study period. It can be concluded that NABIL have utilized the loan and advance for the profit generation in same earning capacity. However EBL seem to have poor performance in order to have returns from loan and advances because of heavy less than five percents of return on loan and advances as five percent is benchmarking ratio in this case.

## 4.1.3.2 Return on Total Assets

This ratio measures the overall profitability of all working fund i.e. Total assets. A firm has to earn satisfactory return on working funds for its survival. The following table shows return on total assets ratio of selected banks.

## Table No. 4.11

Banks	EBL	NABIL
F/Y		
2006/07	0.014	0.025
2007/08	0.017	0.020
2008/09	0.017	0.024
2009/10	0.020	0.022
2010/11	0.020	0.023
Total	0.088	0.113
Mean	0.018	0.023
S.D	0.003	0.002
C.V	0.1503	0.0773

## **Return on Total Assets Ratio**

Source: Annual Report of sample banks

Above table shows the Return on Total Assets of EBL an NABIL. This table states the net profit to total assets of selected banks during the study period. EBL has almost same value of return on asset beside 2007/08 and 2008/09 is 1.7%, 2009/10 and 2010/11 is 2%. But EBL has constantly increasing trend of return on its total assets however, NABIL seems successful in managing and utilizing the available assets in order to generate revenue since its ROA ratio is 0.023% of total assets in an average which is higher than that of others. Where as S.D. and C.V of EBL is 0.003 and 0.15 respectively, NABIL is 0.002.

#### 4.1.3.3 Total interest Earned to Total Operating Income Ratio

Total interest earned to total operating income ratio reveals that portion of interest income on total operating income of the firms. The major sources of income for the bank are interest income so the banks should mobilize their funds in more interest generating sectors considering the risk and return. This ratio measures how successfully the selected banks have been mobilizing their fund uninterested generating assets during last from FY 2006/07 to 2010/11 are presented to analyze in the following table. The major sources of income for the bank are interest income. So the banks should mobilize their funds in more interest generating sectors considering the risk and return.

#### **Table No. 4.12**

Banks	EBL	NABIL
F/Y		
2006/07	1.36	1.07
2007/08	1.28	1.18
2008/09	1.42	1.26
2009/10	1.61	1.46
2010/11	1.97	1.72
Total	7.64	6.71
Mean	1.53	1.34
S.D	0.28	0.26
C.V	0.1818	1.07

#### **Total interest Earned to Total Operating Income Ratio**

Source: Annual Report of sample banks

Above table shows Interest Earned to Operating Income Ratio of EBL and NABIL has increasing ratio of study period except 2007/08 of EBL. EBL has greater share of total interest earn in its total operating income in each year and mean too by NABIL. The mean ratio of EBL and NABIL respectively. EBL has higher ratio, it indicates the high contribution in operating income made by lending and investing activities (core banking activity). NABIL has lower average ratio, it indicates that high contribution in operating

income do not made by lending and investing activities (core banking activity). High contribution in operating income made by lending and investing activities (core banking activity) is not good for long run but in short run it is not so bad. Thus, from short term view, EBL is in good condition but from long term view, NABIL is in good condition. In overall and has managed sound interest earned to operating income ratio.

The S.D. and C.V of EBL is 28 and 18.18, similarly NABIL have 26 and 1.7 times, respectively.

#### 4.1.3.4 Total Interest Paid to Total Assets Ratio

Total interest paid to total assets ratio help to show and measure the percentage of interest paid by the firm in comparison with total assets. If interest paid to total assets ratio is higher, there will be higher interest expenditure on total assets. The following table shows that total interest paid to total assets of selected banks.

#### Table No. 4.13

## **Total Interest Paid to Total Assets Ratio**

Banks	EBL	NABIL
F/Y		
2006/07	0.024	0.020
2007/08	0.023	0.020
2008/09	0.027	0.026
2009/10	0.038	0.038
2010/11	0.055	0.051
Total	0.168	0.156
Mean	0.034	0.031
S.D	0.013	0.013
C.V	0.3956	0.4202

Source: Annual Report of sample banks

Due to the little bit higher ratio in each year of EBL, it seems less conscious about borrowing cheaper fund. Both shows the increasing trend of the interest paid to total asset ratio, whereas the average ratio of EBL is 3.4%. The mean ratio of NABIL is 3.1%. In comparison, EBL seems ineffective in getting cheaper fund from the mean point of view. However, EBL has been conscious in each year for getting cheaper fund.

The S.D. and C.V of EBL is 1.3% and 39.56% and NABIL is 1.3% and 42.02 respectively.

## 4.1.4 Activity Risk Ratio

Risk and uncertainty is a part of business loss. All the business activities are influenced by risk, so business organization cannot achieve a good return as per their desires. The profitability of risk makes banks investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So the banks options for high profit have to accept the risk and manage it efficiently. A bank has to have idea of the level of risk of risk that one has to bear while investing its funds. Through following ratios, effort has been made to measure the level of risk inherent in the EBL and NABIL.

## 4.1.4.1 Liquidity Risk Ratio

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity of need. This ratio is low if funds are kept idle as cash balance but this reduces profitability, when the banks makes loan, its profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

#### Table No. 4.14

Banks	EBL	NABIL
F/Y		
2006/07	0.13	0.12
2007/08	0.11	0.16
2008/09	0.18	0.18
2009/10	0.21	0.14
2010/11	0.15	0.15
Total	0.78	0.75
Mean	0.16	0.15
S.D	0.04	0.02
C.V	0.25	0.14

## **Liquidity Risk Ratio**

Source: Annual Report of sample banks

Above table shows liquidity risk ratio of the selected banks. Ratio of EBL and is in increasing trend except 2010/11, whereas ratio of NABIL is in fluctuating trend. The higher average ratio of them is 0.16 of EBL and 0.15 of NABIL..

The average mean ratio of EBL is greater than that of Nabil bank. It signifies that EBL has sound liquid fund to make immediate payment to the depositors.

## 4.1.4.2 Credit Risk Ratio

Credit risk ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. Actually credit risk ratio shows the proportion of non-performing assets in total loan and advances of a bank.

Banks	EBL	NABIL
F/Y		
2006/07	0.64	0.57
2007/08	0.68	0.58
2008/09	0.65	0.63
2009/10	0.67	0.62
2010/11	0.67	0.65
Total	3.30	3.05
Mean	0.66	0.61
S.D	0.02	0.04
C.V	0.0250	0.0589

Table No. 4.15

Credit risk ratio (%)

Source: Annual Report of sample banks

The table no.4.15 shows that the total mean, standard deviation & coefficient of variation of credit risk ratio of commercial banks. The table shows that the credit risk ratios of EBL is in fluctuating trend. NABIL is in increasing trend. The higher ratio of EBL is 68 and lower is 64 whereas, the higher ratio of NABIL is 65 and lower is 57%.

Mean ratio of EBL is higher than NABIL i.e. 66% > 61%. S.D and C.V is 2% and 2.3% of EBL and 4% and 5.89% of NABIL.

## 4.2 Statistical Tools

Some important statistical tools are used to achieve the objective of this study. In this study, statistical tools such as, trend analysis, co-efficient of correlation analysis between different variables, test of hypothesis are used.

## 4.2.1 Coefficient of Correlation Analysis & Test of Hypothesis

Under this topic, Karl person's coefficient of correlation & test of hypothesis are used to find out the relationship between deposit and loan & advances, deposit and total investment, total asset and net profit.

# 4.2.1.1 Co-efficient of correlation & test of hypothesis between deposits and loan & advances

Coefficient of correlation (r) between deposits and loans and advances measures the degree of relationship between these two variables. The purpose of correlation analysis between deposit and loan and advances is to find out whether deposit is significantly used as loan and advances. In this analysis deposit is independent variables (x) and loan & advances are dependent variables (y).

#### Table no.4.16

Coefficient of correlation between deposit and loan & advances and test of hypothesis

Evaluation criteria	r	$r^2$	t-cal	t-tab	Result
EBL	0.997	0.9940	0.0023	2.306	Insignificant
NABIL	0.989	0.9781	0.00017	2.306	Insignificant

Source: Annual Report of sample banks

From the table no. 4.16 shows that r,  $r^2$ , & test of hypothesis between deposit and loan and advances of EBL and NABIL for the period of 2006/07 to 2010/11.

It is found that the co-efficient of correlation (r) between deposit and loan and advances of EBL and NABIL is 0.997 and 0.989 respectively. It shows the highly positive relationship between these two variables. However co- efficient of determination i.e.  $r^2$  it indicates that in the case of NABIL 0.9781 of the variation in the dependent variable i.e. loan & advances has been explained by the independent variables i.e. deposit. In the case of EBL is 0.9940. More over considering the hypothesis in case of EBL and NABIL is no significant relationship between deposit and loan & advance. The value of  $r^2$  is no significant that means there is no significant relationship between deposit and loan & advances of all sample banks. Due to small sample size all these banks are insignificant. Hence Null hypothesis is accepted and the alternative hypothesis is rejected.

# 4.2.1.2 Coefficient of correlation between deposit and total investment and test of hypothesis

Coefficient of correlation between deposit and total investment measures the degree of relationship between these two variables. The purpose of calculating this analysis is to find out whether deposit is significantly used as investment or not. In this analysis deposit is independent variable (x) and total investment is independent variable (y).

#### Table no.4.17

## Coefficient of correlation between deposit and total investment and test of hypothesis

Evaluation criteria	r	$r^2$	t-cal	t-tab	Result
EBL	0.295	0.0870	0.0015	2.306	Insignificant
NABIL	0.964	0.93	0.00025	2.306	Insignificant

Source: Annual Report of sample banks

The table no.4.17 shows that, the value of r,  $r^2$ , & test of hypothesis between total deposit and total investment of EBL and NABIL for the study period 2006/07 to 2010/11.

In case of EBL it is found that coefficient of correlation between deposit and total investment is 0.295, NABIL has also highly Positive correlation i,e 0.964 respectively. It shows that positive relationship between deposit & total investment of EBL and NABIL. Moreover, when we consider the value of EBL and NABIL coefficient of determination  $(r^2)$  are 0.0870 and 0.93 respectively. When analyze the value of r and comparing with test of hypothesis we can find that there is insignificant relationship between deposit and investment of both sample banks.

The relationship is insignificant and the value of r shows high percent in the dependent variables, which has been explained by the independent variable. Above analysis indicated that NABIL has successful in maximizing the investment of their deposits in comparison to other banks because we have the highest value of r of NABIL than EBL. Due to small sample size it becomes no significant. Hence Null hypothesis is accepted and the alternative hypothesis is rejected.

# 4.2.1.3 Coefficient of correlation between total assets and net profit and test of hypothesis

Coefficient of correlation between Total assets and net profit measures the degree of relationship between these two variables. The purpose of computing these analysis is to find out whether net profit is significantly correlated with respect to total assets or not. In this analysis outside asset is independent variable (x) and net profit is independent variable (y).

#### Table no.4.18

#### Coefficient of correlation between outside assets and net profit and test of hypothesis

Evaluation criteria	r	$r^2$	t-cal	t-tab	Result
EBL	0.9756	0.9517	0.00109	2.306	Insignificant
NABIL	0.9553	0.9125	0.00734	2.306	Insignificant

Source: Annual Report of sample banks

The table no.4.18 shows the value of r,  $r^2$ , and t-test between total assets and net profit of EBL and NABIL for the study period 2006/07 to 2010/11.

From the table in case of EBL it is found that coefficient of correlation between total assets and net profit is 0.9756. It shows the positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination  $(r^2)$  it 0.9517 and it means 95.17% of the variation in the dependent variable is explained by the independent variable. Where analyze the value of r and comparing with hypothesis we can find that there is insignificant relationship between total assets and net profit which reveals that due to small sample size.

In case of NABIL there is positive correlation between total asset and net profit. There is no significant relationship between mobilization of funds and returns of both selected banks. Hence Null hypothesis is accepted and the alternative hypothesis is rejected.

#### 4.2.2 Trend Analysis

Under this topic, analysis trend of loan & advances to total deposit ratio as well as trend of total investment to total deposit ratios of EBL and NABIL bank are calculated and forecasted for next five years. The forecast is based on the following assumptions.

- ◆ The first assumption is that other things will remain unchanged.
- ✤ The bank will run in present potion.
- ✤ The economy will remain in the present stage.
- The forecast will be true only when the limitation of least square method is carried out.
- Nepal Rastra Bank will not change its guidelines to commercial banks.

## 4.2.2.1 Trend analysis of loan and advances to total deposits ratio of EBL & NABIL.

Calculate the trend values of loan and advances to total deposits ratio of EBL and NABIL for five years from 2006/07 to 2010/11 and forecast for next five years from 2010/11 to 2015/16. The following table no 4.19 shows the trend value of deposit for ten years for the sample banks.

Table	4.19
-------	------

## Trend analysis of loan and advances to total deposits ratio of EBL & NABIL (%)

Banks	EBL	NABIL
F/Y		
2006/07	0.75	0.67
2007/08	0.76	0.67
2008/09	0.72	0.74
2009/10	0.75	0.70
2010/11	0.76	0.77
2011/12	0.76	0.78
2012/13	0.76	0.80
2013/14	0.75	0.82
2014/15	0.75	0.85
2015/16	0.76	0.87

Source: Annual Report of sample banks

From the table no. 4.19 it has been shows that the ratio of loan & advances to total deposits of EBL and NABIL is in increasing trend. The ratio of EBL and NABIL is in 2015/16 will be 76% and 87% respectively.

The calculated and projected trend values of loan and advances of EBL and NABIL are fitted in the following trend line.

## Figure 4.1



Trend analysis of loan and advances to total deposits ratio of Sample Banks

From figure no.4.1 trend analysis it is quite obvious that deposit utilization position in relation to loan & advances to total deposit ratio is lower than other bank but it has fluctuating trend. These increasing trend means NABIL may use relatively large portion of their deposit by providing loan. It is also found that the loan and advances position of NABIL is increasing trend that means it will be better position in future.

#### 4.2.2.2 Trend analysis of total investment to total deposit ratio of EBL & NABIL.

Calculate the trend values of total investment to total deposits ratio of EBL and NABIL for five years from 2006/07 to 2010/11 and forecast for next five years from 2010/11 to 2015/2016. The following table shows the trend value of total investments to total deposits ratio of EBL and NABIL bank.

## Table no. 4.20

Banks	EBL	NABIL
F/Y		
2006/07	0.20	3.83
2007/08	0.14	3.11
2008/09	0.10	0.29
2009/10	0.07	0.30
2010/11	0.12	0.26
2011/12	0.17	3.55
2012/13	0.15	2.55
2013/14	0.12	1.56
2014/15	0.10	0.57
2015/16	0.08	-0.43

Trend analysis of total investment to total deposit ratio of Sample Bank (%)

Source: Annual Report of sample banks

From the table no. 4.20 it has been shows that the ratio of total investment to total deposit ratio of EBL and NABIL. The ratio of EBL and NABIL is in 2015/16 will be 8% and - 43% respectively.

The calculated and projected trend values of total investment to total deposits of EBL and NABIL are fitted in the following trend line.





Trend analysis of total investment to total deposit ratio of sample banks

From the figure 4.2 shows that the ratio of total investment to total deposit ratio of EBL and NABIL. EBL is in decreasing trend and NABIL is in Fluctuating trend and it will be negative value at end of the study period i,e 2015/16. If other things remaining the same it shows that the value of ratio decreasing by negatively. The negative trend value means the banks ratio is less than par value. If our assumption is applied the ratio of total investment to total deposit of NABIL in 2015/16 will be -43%, which is lower than EBL.

Above analysis only mention when it meet the above assumption and if other things remaining same but in real life it is different.

## 4.3 Major Findings of the Study

- It is found from the study that the amount of total deposit collected by Nabil Bank in each year during 5 years of the study period is higher than that of EBL. Total deposit collected and total investment made, total loan and advances of Nabil Bank is also Higher during the study period. It is clear that Investment policy adopted by Nabil Bank is sound from profit point of view.
- Nabil Bank has given more priority on investment. Nabil Bank has accepted higher level of interest rate risk rather than credit risk. Overall profitability ratio of Nabil Bank shows that it has earned Higher profit than EBL. It is clear that Nabil Bank has given more emphasis on profit.
- The study has found that total deposit and loan and advances and investment of the selected bank will be in increasing trend if other things remain constant.
- There is positive relationship between deposit and loan & advances and deposit and investment of the selected bank.
- NRB has directed all the commercial banks to keep minimum 5.5% of total deposit in the NRB balance so as to maintain the liquidity position. EBL has an average mean ratio of 1.28%, Nabil Bank has an average mean ratio of 7.96%.
- Loan & advances to total deposit average mean ratio of EBL is 0.75% and Nabil Bank is 071%.
- Investment to total deposit ratio of sample banks is in fluctuating and decreasing trend. An average mean of EBL is 66% which is near by NABIL bank, NABIL is 61.

- Investment on financial institution to total deposit ratio of the selected bank is fluctuating drastically.
- The loan loss ratio shows that the overall study of this ratio reveals that EBL and NABIL both is in better position to grant loan and advances but in terms of investment purposed Nabil Bank is more capable to make investment out of total deposit.
- Nabil Bank has higher interest rate risk than that of EBL and also has higher variability ratio.
- Credit risk ratio measures the risk behind making investment or granting loan.
- Return on total assets of Nabil Bank has accepted higher level of risk. It is clear that Nabil Bank is in better position to earn higher profit out of its working fund.
- Return on Loan & advance of Nabil Bank is higher than that of EBL i,e 0.037% That means Nabil Bank has achieved the net profit from loan & advances four times more than that of EBL.
- Correlation of coefficient between deposit and loan & advances found that there is positive relationship between deposit and the loan & advances of the all sample bank. It indicates that the increase in deposit tends to increase in loan and advances. The study also suggests that the dependent variable i.e. loan & advances of sample bank is highly dependent upon the total deposit.
- Correlation coefficient between deposit and investment of Nabil bank are negative whereas that of EBL is positive. It is found from the study that the dependent variable i.e. investment and independent variable i.e. deposit.
- It indicates that increase in net profit of Nabil Bank is not caused by the increase in total assets of the bank.
- The trend analysis of loan and advance to total deposit ratio of sample bank show that in increasing trend.
- It is forecasted that all sample banks will have decreasing trend of investment to total deposit ratio. The total investment to total deposit ratio of all sample banks are forecasted negatively it means that the banks ratio is less than par value or it doesn't maintain the standard of ratio.

## **CHAPTER-V**

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

In the last chapter of this study is summary, conclusion and recommendation have discussed and explored the facts and matters required for various parts of the study. Through the analytical chapter by using some important financial as well as statistical tools, makes a comparative analysis of various aspects of the investment of concern commercial banks.

Having completed the basic analysis required for the study, the researcher must point out the mistakes and error and also correct them by giving suitable suggestions for further improvement. Therefore, this summarized and recommended tasks of the researcher of the study would be meaningful to the top management of the bank to initiate the action and achieve the desired result.

## 5.1 Summary

The economic development of a country depends upon the development of commerce and industry. And, there is no any doubt; banking promotes the development of commerce because banking itself is the part of commerce. The process of economic development depends upon various factors, however economists are now convinced that capital formation and its proper utilization plays a paramount role for rapid economic development.

The economic growth was very slow in earlier year; it has caught its full selling with the restoration democracy in the country. At present, overall economic growth rate still decline year by year. Reasons behind this decline are insecure situation faced by industry, decrease in the tourist arrival, drop in the production and export of carpet, garment and pashmina industry and political situation. The evolution of the organized financial system in Nepal has more recent history than in other countries of the world. In Nepalese context, the history of banking is not more than six decade. After the announcement of liberal and free market economic based policy Nepalese banks and financial sectors having greater network and access to national and international markets. Commercial banks plays a vital role which deals with other people's money and stimulate saving by mobilized idle

resources to those sectors where have investment opportunities. Modern bank provides various services to their customer in view of facilitating their economic and social life.

The objective of the commercial banks is always to earn more profit by investing or granting loan and advances into profitable, secured and marketable sector. But commercial bank should be careful while performing the credit creation function; the banks should never invest its funds in those securities, which are too many fluctuations. And commercial banks must follow the rules and regulations as well as different directions issued by central banks and ministry of finance while mobilization the funds or the commercial banks should invest its funds only those securities, which are legal.

There has been number of commercial bank established, the research has taken into consideration. Everest Bank Ltd was established in 2051 B.S as a joint venture with Punjab National Bank of India. The bank operates with the objective of extending professionalized and efficient banking services to various segments of the society. The bank has been conferred with "Bank of the year 2006" by the banker a publication of financial times, London. The bank provides various services and facilities. NABIL Bank bank Ltd was the first join venture commercial banks incorporated in 1984 by joint investment of Dubai bank limited and Nepali promoters. This bank is awarded by "Bank of year 2004". It holds of a vision to become a leading bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns the stakeholders of the bank. It provides various services and facilities.

In the study, the word financial covers a wide range of activities i.e. the investment of income, savings or other collected fund. If there is no savings, there is no existence of investment therefore, savings and investment are interrelated. Financial Performance is a one facet of the overall spectrum of policies that guide banks financial operations and it ensures efficient allocation of funds to achieve the well being economic development of the nation. A sound and viable financial policy attracts both borrowers and lenders, which help to increase the volumes and quality of deposits, loan and investment. Some sources of funds for the investment of the bank are capital, general reserves, accumulated profit, deposits and external & internal borrowings. Similarly, some important banking terms, which are frequently used in this study, are loan and advances, investment on government securities, shares and debentures, deposits and other use of funds.

In this study, for the analysis and interpretation of the data different financial & statistical tools are used. In the financial tools liquidity ratios, assets management ratios, profitability ratios, risk ratios and growth ratio have been used. Where, as in statistical tools mean, standard deviation, coefficient of variation, trend analysis, coefficient of correlation and test of hypothesis have been used. Only the secondary data have been used for the analysis in this research. The data are obtained from annual reports of concerned banks, likewise, the financial statement of five years i.e. 2006/07 to 2010/11 was selected for the purpose evaluation.

#### 5.2 Conclusions

Under This research study, different financial and statistical tools are used to measure the Investment policy of the selected banks. It is found that all sample banks have strong financial performance but comparatively Nabil Bank are better position. Despite of social contribution Nabil Bank has higher profit earnings. It is concluded that Nabil Bank has adopted better financial policy than that of EBL.

In conclusion, it can be said that central banks are required to direct the commercial banks. Commercial bank should move as per the direction given by the central bank. Banks should have optimum policy to collect the deposit in various accounts. Deposit is the major organ of commercial bank to live in the industry. Higher the deposit Higher will be the chance of mobilization of working fund and profit thereto. Banks should not invest their' fund haphazardly. It should be careful while advancing loan because loan is the blood of the commercial bank for survival. If commercial bank does not apply sound investment policy it will be in great trouble in future to collect it in time, hence the possibility of bankruptcy there too. Banks should invest their fund in various portfolios after the deep study of the project to be safe from being bankruptcy. If banks concentrate the investment in few organizations there is a high chance of default risk. Diversification is needed to all the business houses but it has seen immense importance to commercial bank (C.B). Hence, the C.B. should implement the investment policy considering the directives issued by NRB. CBs should not cross the boundary level set by central bank to make investment policy. In overall, it can be concluded that the role of NRB in investment policy of commercial bank has both positive and negative impacts.

## 5.3 **Recommendations**

On the basis of analysis and findings of the two banks in previous section, EBL and NABIL are recommended to go through following suggestion, which may overcome the weakness and less effectiveness of the existing fund mobilization and financial policy.

- A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community; however, external as well as internal factors affect the liquidity position of banks. As Everest bank limited and NABIL's both has maintained the all kinds of Liquidity Ratio.
- To get success in competitive banking environment, depositor's money must be utilized as loan and advances. The largest item of the bank in the asset side is loan and advances. If it is neglected, then it could be the main cause of liquidity crisis in the bank.
- Besides giving priority of investing on government securities, Nabil is recommended to invest its fund in purchase of shares and debentures of other financial and non-financial companies. Government securities such as treasury bills are gives very lowest interest rate rather than other's company's securities. This also helps to maintain the sound portfolio of the banks.
- Profitability is the main indicator of the financial performance of cash and every business organization. In this study, profitability ratio is good from of all sample banks.
- Diversification of investment is highly suggested to the selected bank as they have given priority to invest in government securities only. Both sample banks seem risk avoider as they have invested highest amount in risk free securities. Higher the risk higher will be the profit. Hence, EBL and Nabil Bank are recommended to diversify their investment in NRB bond, govt. non financial institution, other non-financial institution etc.
- Liquidity and profitability are like two wheels of the same cart and both are very inter-related and have converse relation; one can be achieved only at the cost of the others. Highly liquid bank may have less profitability as it has to hold more assets in the form of cash. However, the bank has to maintain sufficient fund in the form of cash and liquid assets to meet various commitments like depositors claim, personnel expenses, interest payments, to exploit unforeseen opportunities etc. Since, EBL and NABIL has held more liquidity its profitability ratios.

- To get success in this competitive banking environment, deposit money must be utilized as loan and advances. Loan and advances is the largest item of the bank in assets side. While granting the loan it should be borne in mind that large number of borrowing customers may benefit from the banker's fund. Negligence in administering these assets could be the main cause of liquidity crisis in the bank and one of the main reasons of the bank's failure. Project oriented approach has to be encouraged in lending business of bank. Although there is high risk in such project, the important things regarding project is that project itself should be capable of generating their own funds and to repay the loan on a timely basis. So, the chance of loan loss in the project oriented approach can be minimized there of.
- Similarly, recovery of loan is another important factor of financial policy. Although effort has been made for collection of repayment, but still there is some increment in sub-standard and doubtful loan. It should be controlled timely, if not sub-standard loan might be converted to doubtful loan and doubtful to bad loan. Both the sample banks are suggested to implement a sound collection policy, which should ensure rapid identification of fake loans, immediate contact with borrower and continual follow up until a loan is recovered in full. The recovery of loan loss is the must be very careful in formulating credit collection policy, which should be associated with some legal procedure.
- The commercial banks have been established gradually after the commercial banks act 2031 B.S. With the passage of time so many commercial banks, as a joint venture, have been established gradually because of the liberal and market friendly economic policy of government of Nepal. But banks should provide some social response by expanding their operation in rural areas rather than urban areas. And banks can give response to poor and disadvantage groups. By establishing the branches in rural areas, minimum amount for opening accounts and interest rate should be reduced for creditors.
- In the light of growth competition in the banking sectors, the business of the banks should be customer oriented. It should focus not only towards big clients but also towards small clients. They should treat every client equally. They should bring different schemes to focus the customers like, increase interest rate, bank credit policies, bank loan insurance policies, evening counters, social responsibilities etc.

- Majority of commercial banks have been found to be profit oriented ignoring their social responsibility, which is not a proper strategy to sustain in long run. So all the banks are suggested to render their serves even in the rural areas providing special loans to the deprived and priority sectors, which might further intensify the goodwill of the banks in future.
- The Economic Liberalization policy adopted by Nepal government has created and environment of strict competition even in the banking sectors. In the context, all the banks are suggested to formulate and implement some sound and attractive financial; and non- financial strategies to meet required level of profitability such as risk analysis diversification, social responsibility, bank credit policy, compensation policy etc.

## **BIBLIOGRAPHY**

#### **Books:**

- Ahuja, B.N., (1994), *Financial Management*, New Delhi, Academic's Dictionary of Management, 2<sup>nd</sup> Edition.
- Gupta S.C (1992); Fundamental of Statistics, New Delhi, Himalayan Publishing House.
- James, C.V and Horne, (2000), *Financial Management Text and Problem*, New Delhi, Tara Mc Graw Hill Publishing Co. Ltd., 2<sup>nd</sup> Edition.
- Khan, M.Y and Jain, P.K. (1997), *Financial Management*, New Delhi, Tara Mc Graw Hill Publishing Co. Ltd., 2<sup>nd</sup> Edition.
- Khatiwada Y.R. (1994), *Some Aspects of Monetary Policy in Nepal*, New Delhi, South Asian Publishers Pvt. Ltd.
- Kothari, C.R. (1989) *Research Methodology Methods & Techniques* New Delhi; Willey Easterly Ltd.
- Metcalf, R.W. and Titard, P.L. (1993), *Financial Management*, *Principle of Accounting*, Philadelphia, W.B. Saunder.
- Munakarmi S.P. (2059); *Management Accounting*, Kathmandu, Buddha Academy Publishers.
- Pandey, I.M. (1996), *Financial Management*, New Delhi, Vikash Publishing House Pvt. Ltd., 6<sup>th</sup> Revised Edition.
- Shrestha K.N and Manandhar, K.D. (1999); *Statistics and Quantitative Techniques for Management*, Kathmandu, Valley Publishers.
- Shrestha, M.K. (2047) *Commercial Banks Comparative Performance Evaluation*, Kathmandu; Karmachari Sanchya Kosh.
- Vaish M.C. (1996), *Money, Banking, Trade and Public Finance*, New Delhi, Wiley Eastern Limited.
- Van Horne J.C (2001). "Financial Management and Policy" New Delhi: Prentice Hall Pvt. Ltd.
- Wolf Horald K. and Pant P.R. (1999); *A Handbook of Social Science Research and Thesis Writing*, Kathmandu, Buddha Academic Enterprises Pvt. Ltd.

#### **Review of Journals and Articles**

- Pradhan, S.B. (1991) "Nepal ma Banijya Bank Upalabdhi tatha Chunanti" Rajat Jaganti Smarika.Vol 3.
- Sharma, M.P. (2002) "Banking the future on competition" **Kantipur National Daily**, Dec 13 Kantipur Publication, Kathmandu.
- Shrestha, Dr. S. (1995). 'commercial banks comparative performance evaluation' Nepal Bank Patrika. Kathmandu Nepal Bank Ltd.
- Thapa, S. (2005) "financial system of Nepal" New Business Age, Feb 17, New Business Age Pvt. Ltd. Kathmandu.

#### **Unpublished Master Thesis**

- Bohara, I.B. (2002) *A Comparative Study on Investment Policy on Joint Venture Banks and Financial Companies of Nepal* An Unpublished Master's Thesis, T.U.
- Choudhary, M. (2009), *Investment Policy a Comparative Study of Nepal Bangladesh Bank Ltd. & Himalayan Bank Ltd.* An Unpublished Master's Thesis, T.U.
- Dhakal, T.N (2001), A Comparative study of Financial Performance of Nepal SBI Bank Ltd. and Nepal Investment Bank Ltd. An Unpublished Master's Degree Thesis, T.U.
- Laudari, G. (2010). An Accounting Ratio Analysis of NABIL Bank Ltd. and Himalayan Bank Ltd. An Unpublished Master's Degree Thesis, T.U.
- Panta, I.P. (2005), Accounting Ratio Analysis: A Comparative Study of Everest Bank Ltd. and Nepal Industrial & Commercial Bank Ltd. An Unpublished Master's Degree Thesis, T.U.

- Rana, S. (2004). *An Investment Policy of Joint Venture banks in Nepal*, An Unpublished Master's Thesis, T.U.
- Singh, R. (2005), *Financial Performance of Bank of Kathmandu and NABIL bank Ltd.* An Unpublished Master's Degree Thesis, T.U.
- Sthapit, S. (2005), *Financial Performance of Nepalese Commercial Banks in Nepal.* An Unpublished Master's Degree Thesis, T.U.
- Yadav, J.P. (2005). A study on Comparative Financial Performance Analysis of Joint Venture Banks in Nepal. An Unpublished Master's Degree Thesis, T.U.

#### **Others:**

Annual Reports of EBL from FY 2006/07 to FY 2010/11.

Annual Reports of NABIL from FY 2006/07 to FY 2010/11.

Commercial Bank Act 2031 B.S.:

NRB Directives, (2068)

#### Websites:

www.everestbankltd.com www.google.com www.nabilbank.com

www.nepalstock.com.

www.nrb.org.np

## **APPENDICES**

#### Appendix: 1

#### Computation of Current Ratio of EBL & NABIL (in Millions)

Year	I	EBL	NABIL		Current Ratio of	Current Ratio of
	Current Assets(CA)	Current Liabilities(CL)	Current Assets(CA)	Current Liabilities(CL)	EBL (CR = CA/CL)	NABIL(CR = CA/CL)
2006/07	19892.71	14304.41	258370.9	33057.13	1.39	7.82
2007/08	24967.25	18481.92	343750	43720.1	1.35	7.86
2008/09	33912.63	27051.25	405082.7	51423.94	1.25	7.88
2009/10	38656.64	27478.74	507180	61709.8	1.41	8.22
2010/11	42777.47	42340.67	555143.9	68978.06	1.01	8.05

## Appendix: 2

## Computation of Cash & bank balance to Total deposit Ratio of EBL & NABIL (in Millions)

Year	]	EBL	NABIL		Cash & bank balance to Total	Cash & bank balance to Total	
	Total deposit	Cash and bank balance	Total deposit	Cash and bank balance	deposit Ratio of EBL =CBL/TD	deposit Ratio of NABIL=CBL/TD	
2006/07	18186.25	2391.42	23342.3	2704.06	0.13	0.12	
2007/08	23976.3	2667.97	31915	5114.26	0.11	0.16	
2008/09	33322.95	6164.38	37348	6743.95	0.18	0.18	
2009/10	36932.31	7818.82	46411	6359.86	0.21	0.14	
2010/11	41127.9	6122.8	49696	7445.92	0.15	0.15	

Year	EBL		NA	NABIL		Cash & bank balance to
	Current Assets(CA)	Cash and bank balance	Current Assets(CA)	Cash and bank balance	Current Assets Ratio of EBL =CBL/CA	Current Assets Ratio of NABIL =CBL/CA
2006/07	19892.71	2391.42	24988.39	2704.06	0.12	0.11
2007/08	24967.25	2667.97	32749.67	5114.26	0.11	0.16
2008/09	33912.63	6164.38	46821.24	6743.95	0.18	0.14
2009/10	38656.64	7818.82	52835.66	6359.86	0.20	0.12
2010/11	42777.47	6122.8	56012.26	7445.92	0.14	0.13

### Computation of Cash & bank balance to Current Assets Ratio of EBL & NABIL (in Millions)

## Appendix: 4

# Computation of Investment on Govement Securites to Current Assets Ratio of EBL & NABIL (in Millions)

Year	I	EBL	NA	ABIL	Investment on Govement	Investment on Govement
	Current Assets(CA)	Investment on Govement Securites	Current Assets(CA)	Investment on Govement Securites	Securites to current Assets Ratio of EBL = IGS/CA	current Assets Ratio of NABIL = IGS/CA
2006/07	19892.71	3614.54	258370.9	89453.2	0.18	0.35
2007/08	24967.25	3237.98	343750	99397.71	0.13	0.29
2008/09	33912.63	3371.42	405082.7	108263.7	0.10	0.27
2009/10	38656.64	2745.28	507180	137030	0.07	0.27
2010/11	42777.47	4745.5	555143.9	130812	0.11	0.24

Year	Year EBL		NA	ABIL	Loan & Advance to	Loan & Advance to
	Loan & Advance	Total deposit	Loan & Advance	Total deposit	Total deposit Ratio of EBL = L&A/TD	Total deposit Ratio of NABIL = L&A/TD
2006/07	13664.08	18186.25	15545.77	23342.3	0.75	0.67
2007/08	18339.08	23976.3	21365.05	31915	0.76	0.67
2008/09	23884.67	33322.95	27589.93	37348	0.72	0.74
2009/10	27556.36	36932.31	32268.87	46411	0.75	0.70
2010/11	31057.69	41127.9	38034.09	49696	0.76	0.77

## Computation of Loan & Advance to Total deposit Ratio of EBL & NABIL (in Millions)

## Appendix: 6

# Computation of Total Investment to Total deposit Ratio of EBL & NABIL (in Millions)

Year	I	EBL NABIL		Total Investment	Total Investment to	
	Total Investment	Total deposit	Total Investment	Total deposit	to Total deposit Ratio of EBL = TI/TD	Total deposit Ratio of NABIL = TI/TD
2006/07	3614.54	18186.25	89453.2	89453.2	0.20	3.83
2007/08	3237.98	23976.3	99397.71	99397.71	0.14	3.11
2008/09	3371.42	33322.95	108263.7	10826.37	0.10	0.29
2009/10	2745.28	36932.31	137030	13703	0.07	0.30
2010/11	4745.5	41127.9	130812	13081.2	0.12	0.26

Year	EBL		EBL NABIL		EBL NABIL		Loan & Advance to	Total Investment to
	Loan & Advance	Total Assets	Loan & Advance	Total Assets	Total Assets Ratio of EBL = L&A/TA	Total deposit Ratio of NABIL = L&A/TA		
2006/07	13664.08	21432.57	15545.77	27253.39	0.64	0.57		
2007/08	18339.08	27149.34	21365.05	37132.75	0.68	0.58		
2008/09	23884.67	36916.84	27589.93	43867.39	0.65	0.63		
2009/10	27556.36	41382.76	32268.87	52150.23	0.67	0.62		
2010/11	31057.69	46236.21	38034.09	58141.43	0.67	0.65		

### Computation of Loan & Advance to Total Assets Ratio of EBL & NABIL (in Millions)

## Appendix: 8

# Computation of Investment on Govement Securites to Total Assets Ratio of EBL & NABIL (in Millions)

Year	E	BL	NABIL		Investment on Govement	Total Investment to
	Investment on Govement Securites	Total Assets	Investment on Govement Securites	Total Assets	Securites to Total Assets Ratio of EBL = IGS/TA	Total deposit Ratio of NABIL = IGS/TA
2006/07	3614.54	21432.57	4085.83	27253.39	0.17	0.15
2007/08	3237.98	27149.34	3788.38	37132.75	0.12	0.10
2008/09	3371.42	36916.84	1838.81	43867.39	0.09	0.04
2009/10	2745.28	41382.76	5865.88	52150.23	0.07	0.11
2010/11	4745.5	46236.21	6489.95	58141.43	0.10	0.11

Year	EBL		NA	NABIL		Return on Loan &
	Net profit	Loan & Advance	Net profit	Loan & Advance	Advance Ratio of EBL = NP/L&D	Advance Ratio of NABIL = NP/L&D
2006/07	296.4	13664.08	673.95	15545.77	0.022	0.043
2007/08	451.21	18339.08	746.46	21365.05	0.025	0.035
2008/09	638.73	23884.67	1031.05	27589.93	0.027	0.037
2009/10	831.76	27556.36	1141.05	32268.87	0.030	0.035
2010/11	931.3	31057.69	1337.74	38034.09	0.030	0.035

#### Computation of Return on Loan & Advance Ratio of EBL & NABIL (in Millions)

## Appendix: 10

## Computation of Return on Total Assets Ratio of EBL & NABIL (in Millions)

Year	E	BL	NABIL		Return on Total Assets	Return on Total Assets
	Net profit	Total Assets	Net profit	Total Assets	Ratio of EBL = NP/TA	Ratio of NABIL = NP/TA
2006/07	296.4	21432.57	673.95	27253.39	0.014	0.025
2007/08	451.21	27149.34	746.46	37132.75	0.017	0.020
2008/09	638.73	36916.84	1031.05	43867.39	0.017	0.024
2009/10	831.76	41382.76	1141.05	52150.23	0.020	0.022
2010/11	931.3	46236.21	1337.74	58141.43	0.020	0.023

Year	E	BL	NA	BIL	Total Interest	Total Interest Earned to
	Total Interest Income	Total Operating Income	Total Interest Income	Total Operating Income	Earned to Total Operating Income Ratio of EBL = TII/TOI	Operating Income Ratio of NABIL = TII/TOI
2006/07	11444.08	8413.32	15877.58	14801.57	1.36	1.07
2007/08	15486.57	12098.98	19786.96	16704.27	1.28	1.18
2008/09	21868.14	15449.65	27984.86	22209.83	1.42	1.26
2009/10	31024.51	19279.76	40477.25	27984.86	1.61	1.45
2010/11	43310.26	21929.4	52582.69	30619.8	1.97	1.72

## Computation of Total Interest Earned to Total Operating Income Ratio of EBL & NABIL (in Millions)

## Appendix: 12

### Computation of Total Interest Paid to Total Assets Ratio of EBL & NABIL (in Millions)

Year	E	BL	NABIL		Total Interest Paid	Total Interest Paid to Total
	Total Interest paid	Total Assets	Total Interest Paid	Total Assets	to Total Assets Ratio of EBL = TIP/TA	Assets Ratio of NABIL = TIP/TA
2006/07	5171.66	214325.7	5557.1	272533.9	0.024	0.020
2007/08	6326.09	271493.4	7584.36	371327.5	0.023	0.020
2008/09	10128.74	369168.5	11532.8	438673.9	0.027	0.026
2009/10	15727.9	413827.6	19601.07	520797.2	0.038	0.038
2010/11	25358.75	462362.1	29554.03	580996.1	0.055	0.051

Year	EBL		NA	BIL	Liquidity Risk Ratio	Liquidity Risk Ratio
	Cash and bank balance	Total deposit	Cash and bank balance	Total deposit	of EBL = CBB/TD	of NABIL = CBB/TD
2006/07	2391.42	18186.25	2704.06	23342.3	0.13	0.12
2007/08	2667.97	23976.3	5114.26	31915	0.11	0.16
2008/09	6164.38	33322.95	6743.95	37348	0.18	0.18
2009/10	7818.82	36932.31	6359.86	46411	0.21	0.14
2010/11	6122.8	41127.9	7445.92	49696	0.15	0.15

#### Computation of Liquidity Risk Ratio of EBL & NABIL (in Millions)

## Appendix - 14

## Calculation for Mean value, Standard Deviation, CV, Correlation & t-test between Total deposit and Loan & Advance of EBL (in Millions)

Year	Total	Loan &	$x_1 = X_1 - \bar{x}_1$	$\mathbf{x_2}=\mathbf{X_2}-\mathbf{\bar{x}}_2$	$X_1 \cdot X_2$	X1 <sup>2</sup>	X2 <sup>2</sup>
	deposit	Advance					
	(X <sub>1</sub> )	(X <sub>2</sub> )					
2006/07							
	18186.25	13664.08	-12522.9	-9236.3	115665137	156822824	85309164
2007/08							
	23976.3	18339.08	-6732.84	-4561.3	30710485	45331161	20805421
2008/09							
	33322.95	23884.67	2613.808	984.294	2572755.5	6831992.3	968834.68
2009/10							
	36932.31	27556.36	6223.168	4655.984	28974971	38727820	21678187
2010/11							
	41127.9	31057.69	10418.76	8157.314	84989080	108550518	66541772
$N_1 = 5$	$\sum X_1$	$\sum X_2$			$\sum x_1.x_2 =$	$\sum x_1^2 =$	$\sum x_2^2 =$
$N_2 = 5$	=153545.7	=114501.9			262912429	356264316	195303378

For Total Deposit,

Mean 
$$(\overline{X}) = \frac{\sum X_1}{N_1} = \frac{153545.7}{5} = 30709.14$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{356264316}{5}} = 9437.48$ 

For Loan & Advance,

Mean 
$$(\overline{X}) = \frac{\sum X_2}{N_2} = \frac{114501.9}{5} = 22900.38$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_2 - \bar{\mathbf{x}}_2)^2}{N_2}} = \sqrt{\frac{195303378}{5}} = 6987.54$ 

Correlation between Total deposit and Loan & Advance of EBL,

$$(\mathbf{r_{12}}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$
$$= \frac{262912429}{\sqrt{356264316 \times 114501.9}} = 0.997$$

For Hypothesis,

Test statistic under  $H_0$ ,

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{s^2(\frac{1}{n_1} + \frac{1}{n_2})}} = \frac{(30709.14 - 22900.38)}{\sqrt{86182340.01(\frac{1}{5} + \frac{1}{5})}} = 0.0023$$
$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 9437.48^2 + 5 \times 6987.54^2}{5 + 5 - 2} = 86182340.01$$

## Appendix - 15

Year	Total	Loan &	$x_1 = X_1 - \overline{x}_1$	$\mathbf{x_2}=\mathbf{X_2}-\mathbf{\overline{x}_2}$	X <sub>1</sub> .X <sub>2</sub>	$X_1^2$	X2 <sup>2</sup>
	deposit (X <sub>1</sub> )	Advance					
		(X <sub>2</sub> )					
063/64	23342.3	155457.8	-14400.2	-114150	1643773598	207364608	13030148531
064/65	31915	213650.5	-5827.46	-55956.9	326086748	33959290.05	3131177567
065/66	37348	275899.3	-394.46	6291.864	-2481888.67	155598.6916	39587552.59
066/67	46411	322688.7	8668.54	53081.23	460136800.2	75143585.73	2817617403
067/68	49696	380341	11953.54	110733.5	1323657369	142887118.5	12261908908
$N_1 = 5$	$\sum X_1$	$\sum X_2$			$\sum x_1.x_2 =$	$\sum x_1^2 =$	$\sum x_2^2 =$
$N_2 = 5$	=188712.3	=1348037.33			3751172627	459510201	31280439962

## Calculation for Mean value, Standard Deviation & Correlation between Total deposit and Loan & Advance of NABIL (in Millions)

For Total Deposit,

Mean 
$$(\overline{X}) = \frac{\sum X_1}{N_1} = \frac{188712.3}{5} = 37742.46$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_1 - \bar{X}_1)^2}{N_1}} = \sqrt{\frac{459510201}{5}} = 10718.095$ 

For Loan & Advance,

Mean 
$$(\overline{X}) = \frac{\sum X_2}{N_2} = \frac{1348037.33}{5} = 269607.5$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_2 - \bar{X}_2)^2}{N_2}} = \sqrt{\frac{31280439962}{5}} = 88431.39$ 

Correlation between Total deposit and Loan & Advance of NABIL

$$(\mathbf{r_{12}}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$
$$= \frac{3751172627}{\sqrt{459510201*31280439962}} = 0.9894$$

For Hypothesis,

Test statistic under H<sub>o</sub>,

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{s^2(\frac{1}{n_1} + \frac{1}{n_2})}} = \frac{(37742.46 - 269607.5)}{\sqrt{4959367686(\frac{1}{5} + \frac{1}{5})}} = 0.00017$$
$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 10718.095^2 + 5 \times 88431.39^2}{5 + 5 - 2} = 4959367686$$

## Appendix - 16

## Calculation for Mean value, Standard Deviation & Correlation between Total deposit and Total Investment of EBL (in Millions)

Year	Total	Total	$x_1 = X_1 - \overline{x}_1$	$\mathbf{x_2} = \mathbf{X_2} - \mathbf{\overline{x}}_2$	X1.X2	<b>X</b> <sub>1</sub> <sup>2</sup>	$X_2^2$
	deposit	Investment					
	(X1)	(X <sub>2</sub> )					
063/64	18186.25	3614.54	-12522.9	71.596	-896589	156822824	5125.987
064/65	23976.3	3237.98	-6732.84	-304.964	2053274	45331161	93003.04
065/66	33322.95	3371.42	2613.808	-171.524	-448331	6831992.3	29420.48
066/67	36932.31	2745.28	6223.168	-797.664	-4963997	38727820	636267.9
067/68	41127.9	4745.5	10418.76	1202.556	12529140	108550518	1446141
$N_1 = 5$	$\sum X_1$	$\sum X_2$			$\sum x_1.x_2 =$	$\sum x_1^2 =$	$\sum x_2^2 =$
$N_2 = 5$	=153545.7	=17714.72			8273498	356264316	2209958
_							

For Total Deposit,

Mean 
$$(\overline{X}) = \frac{\sum X_1}{N_1}$$
 =  $\frac{153545.7}{5} = 30709.14$   
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_1 - \bar{X}_1)^2}{N_1}} = \sqrt{\frac{356264316}{5}} = 8441.14$ 

For Total Investment,

Mean 
$$(\overline{X}) = \frac{\sum X_2}{N_2} = \frac{17714.72}{5} = 3542.944$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_2 - \bar{\mathbf{x}}_2)^2}{N_2}} = \sqrt{\frac{2209958}{5}} = 664.82$ 

Correlation between Total deposit and Total Investment of EBL,

$$(\mathbf{r_{12}}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$
$$= \frac{8273498}{\sqrt{356264316*2209958}} = 0.295$$

For Hypothesis,

Test statistic under H<sub>o</sub>,

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{s^2(\frac{1}{n_1} + \frac{1}{n_2})}} = \frac{(30709.14 - 3542.944)}{\sqrt{44809268.83(\frac{1}{5} + \frac{1}{5})}} = 0.0015$$
$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 8441.14^2 + 5 \times 664.82^2}{5 + 5 - 2} = 44809268.83$$

#### Appendix - 17

# Calculation of Correlation between Total deposit and Total Investment of NABIL (in Millions)

Year	Total	Total	<b>x</b> <sub>1</sub> = <b>X</b> <sub>1</sub> -	$\mathbf{x_2}=\mathbf{X_2}-\mathbf{\overline{x}}_2$	X1.X2	X1 <sup>2</sup>	X2 <sup>2</sup>
	deposit	Investment	$\bar{\mathbf{x}}_{1}$				
	(X <sub>1</sub> )	(X <sub>2</sub> )					
063/64	23342.3	89453.2	-14400.16	-23538.1	338952722.9	207364608	554043187
064/65	31915	99397.71	-5827.46	-13593.6	79216230.19	33959290	184786287
065/66	37348	108263.7	-394.46	-4727.62	1864857.774	155598.69	22350409.8
066/67	46411	137030	8668.54	24038.68	208380241.8	75143586	577858040
067/68	41127.9	130812	11953.54	17820.68	213020187.3	142887119	317576564
$N_1 = 5$	$\sum X_1$	$\sum X_2$			$\sum x_1.x_2 =$	$\sum x_1^2 =$	$\sum x_2^2 =$
$N_2 = 5$	=188712.3	=564956.61			841434239.9	459510201	1656614489

For Total Deposit,

Mean 
$$(\overline{X}) = \frac{\sum X_1}{N_1} = \frac{188712.3}{5} = 37742.46$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{459510201}{5}} = 9586.55$ 

For Total Investment,

Mean 
$$(\overline{X}) = \frac{\sum X_2}{N_2} = \frac{564956.61}{5} = 112991.32$$
  
S.D  $(\boldsymbol{\sigma}) = \sqrt{\frac{\sum (X_2 - \overline{X}_2)^2}{N_2}} = \sqrt{\frac{1656614489}{5}} = 18202.28$ 

Correlation between Total deposit and Total Investment of NABIL,

$$(\mathbf{r_{12}}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$
$$= \frac{841434239.9}{\sqrt{459510201 \times 1656614489}} = 0.9644$$

For Hypothesis,

Test statistic under Ho,

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{s^2(\frac{1}{n_1} + \frac{1}{n_2})}} = \frac{(37742.46 - 11299.32)}{\sqrt{264515586.3(\frac{1}{5} + \frac{1}{5})}} = 0.00025$$
$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 9586.55^2 + 5 \times 18202.28^2}{5 + 5 - 2} = 264515586.3$$