## CHAPTER-ONE

## INTRODUCTION

### 1.1 Background of the study

Nepal is country with agro-based economy. Geographically it is between two big countries China in the North \& India in the South, East \& West. Its total area covered by the country is about $1,47,181 \mathrm{sq} . \mathrm{km}$. It is divided into Himalayan region Hilly region \& Terai region. Above $80 \%$ of the total population is engaged on subsistence farming. Despite its large share in labor market, it paradoxically, contributes $40 \%$ to the total GDP. As most of the labor forces are underemployed it is necessary to channel the huge labor force into industrial sector. The economic development of Nepal is still in initial stage. For the economic growth and development, government has initiated various economic policies such as industrial policy, foreign investment policy privatization policy and trade\& transit policy.

Nepal has adopted mixed and liberal economic policy with an implicit objective to assist the stage and private sector. Especially after restoration of the democracy, the concept of the liberalization policies has been incorporated as directive principal and stage policies. This liberalization has helped in establishing many companies, banks, finance companies and manufacturing industrial .Thus these establishments help the country for its development.

Banking system occupies an important role in the economic development of a country. A banking institution is indispensable in a modern society .It plays a pivotal role in the economic development of a country and focus the core of the money market in an advance country, The basic function of the bank is to collect deposits as much as possible from customers and mobilize it into the preferable and profitable sectors like industrial, commerce, agriculture, entertainment etc.

Like other countries, Goldsmiths, merchants and moneylenders were the ancient bankers of Nepal. Tejarath Adda established during the Prime Minister Ranoddip Singh (B.S.1993) was the first step towards the institutional development of banking in Nepal. Tejarath Adda did not collect deposits from the public but gave loans to employees and public against the bullion. But the concept of modern banking institution in Nepal was introduced when the first commercial bank, Nepal Bank Limited (NBL) was established in 1994 B.S. under Nepal Bank act 1993 B.S. Being a commercial bank, it was natural that NBL paid more attention to profit generating business and preferred opening branches at urban areas.

Nepal Rastra Bank (NRB) was set up in 2013 B.S.as a central bank under NRB act 2012 B.S. Since then it has been government's bank and has contributed to the growth of financial sector. After this, government set up Rastriya Banijya Bank (RBB) in B.S. 2022 as a fully government owned commercial banks. As the name suggests, commercial banks are to
carry out commercial transaction only. But commercial banks had to carry out the function of all financial institution. Hence, Industrial Development Center (IDC) was set up in 2013 B.S. for industrial development. In 2016, IDC was converted to Nepal Industrial Development Corporation (NIDC). Similarly, Agricultural Development Bank (ADB) was established in B.S. 2024 to provide finance for agricultural produces so that agricultural productivity could be enhance by introducing modern agriculture techniques .The commercial bank have been established gradually after the commercial bank act 2013 B.S. with the passage of time aso many commercial banks have been established gradually because of the liberal \& market friendly economic policy of Nepal Government .The banking activities are getting very much dynamic as well as complex.

Because of the higher return on investment, entrepreneurs were interested in setting of new bank including branches of foreign bank. However, current political and economic scenario of the country coupled with new prudential norms of Nepal Rastra Bank \& stiff competition may make the entrepreneurs give a second thought to the idea of establishing banks.

## Introduction of Nepalese Commercial Banks

## Introduction of Nabil Bank Limited (NBL)

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operation in July 1984.Nepal was incorporated with the objectives of extending international standard modern banking services to various sectors of the society. Pursuing its objectives, Nabil provides a full range of commercial banking services through its 47 points of representation across the kingdom and over 170 reputed correspondent banks across the globe. Operations of the bank including day to day operations and risk management are managed by highly qualified and experienced management term. Bank is fully equipped with modern technology which includes ATM, credit card, state-of-art, world renowned software from Infosys Technologies system, Banglore, India, interest banking system and Tele banking system.

## Introduction of Everest Bank Limited (EBL)

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

### 1.2 Statement of the problem

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

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

Although all sample banks are able to earn profit and dividend to shareholder. They are facing difficulty in market conditions, continuing political statement, increased competition between them and with other competent commercial bank and liquidity problem. Therefore some question of the problem arises in these sample banks, they are as follows:

1. How far commercial banks as well as banks have been able to convert the mobilized deposits into investment?
2. To what extent these banks have been able to raise their profitability ratio?
3. How efficiently banks are managing their assets and liquidity ratio?
4. What is the relationship of investment with deposits and net profit?
5. To what extent are Liquidity Ratio, Profitability Ratio, Debt Management Ratio, Assets Management Ratio and Marketability Ratio useful to predict failure of Banks?

### 1.3 Objective of the Study

The main objective of the study is to evaluate the assets and liabilities management of finance companies in Nepal .In order to achieve the basic objectives, the following other objectives are:

* To evaluate the liquidity, profitability, capital structure activity and capital adequacy position of Nabil Bank Limited and Everest Bank limited.
* To analyze the composition of assets and liabilities of Nabil Bank Limited and Everest Bank Limited.
* To evaluate the trend of deposits and loans of Nabil Bank Limited and Everest Bank Limited.
* To find out the growth of investment situation of these two banks.
* To identify the relationship of investment with deposit and total profit ratio.
* To analyze the profitability situation of commercial banks.
* To recommend and suggest on the basis of major findings of the study.


### 1.4 Need of the Study

This study has been maintained already that the research focuses only on the comparative financial performance between NBL and EBL. This comparative performance analysis gives insight into the relative financial condition and performance of these banks. This will provide guideline for improving its performance to achieve the banks overall objectives. Similarly, this study helps the banks to identify its hidden weakness regarding financial administration. This study has following signification:-
a) This study explains the shareholders about the financial performance of their respective banks.
b) The study also compels the management of respective banks for selfassessment of what they have done in the past and guides them in their future plan and programs.

### 1.5 Significance of the study

Thus the main importances of the study are as followed:

* The study focuses on financial performance of selected commercial banks, NRB act and directives for the joint venture banks.
* It will provide information to the general public regarding success of these commercial banks on the investments they have made.
* This study will be valuable for the shareholder, management of the banks and board of directors of the respective banks, as they hold the position where they stand in the market
* It will give a clear picture on how the banks performing their important function of loan disbursement and repayment


### 1.6 Limitation of the study

Financial ratio is not full proof tool itself and no study can be conducted without any limitation.So this study has also been some limitation of the study:

* The study includes certain Banks as sample.
* The study covers five years data.
* Only certain tools are used to analyze the data.
* This study is based on secondary data; the study depends on annual reports published by the bank.
* No hypothesis is used to test the significance of the study.
1.7 Organization of the Study:-This study is divided into five chapters. They are as follows:


## Chapter 1: Introduction

Introduction part covers, Background of the study, Origin of sample banks, Statement of the problem, Objectives of the study, Need of the study, Significance of the study, Limitation of the study and Organization of the study.

## Chapter 2: Review of Literature

The chapter deals with different article, books and relatives thesis related to comparative financial analysis.

## Chapter 3: Research Methodology

The chapter three deals with research methodology. It consists of methodology adopted to achieve the objective i.e. research question the models, specification of variables, sample selection, data collection and limitation of the study.

## Chapter 4: Presentation and Analysis of Data

Chapter four consists of presentation and analysis of data with different financial tools. An analysis of the respondents' opinion on various aspects of capital structure management has been also presented.

## Chapter 5: Conclusion and Recommendations

Chapter five consists of the summary and major findings of this study and recommendation for further research

## CHAPTER- TWO

## REVIEW OF LITERATURE

Review of literature means reviewing the past studies, research studies or other relevant subjects in the related area of the study so that, their conclusion and deficiencies may be known and further research can be conducted. The chapter will help to check the chances of duplication in the present study. Thus the gap between the previous and current research can fill out. Mainly writing has been prepared with the fresh annual general meeting magazines provide by the respective Banks. The Thesis writing is collected of my own effort. So I hope the literature of review is sufficient for my assignment. The whole study is done mainly two concepts.

### 2.1 Conceptual Review of the Study

### 2.1.1 Financial performance Analysis

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

Most of the users of financial statement seek to assets the bank's overall performance. The users of financial statements of bank require relevant, reliable and comparative information to evaluate the financials performance and position and hence make economic decision regarding the bank. According to 'Commercial Bank Acts 1974'the audited balance sheet and profit and loss account must be published in the leading national newspaper for the information to the general public.
"Traditionally, banks act as financial intermediaries to channel funds from surplus units to deficit units. Unlike other non-banking financial companies, commercial banks do not produce any physical goods. They produce loans and financial innovations to facilitate trade transactions. Because of special role they play in the economy, concerned authorities heavily regulate them. An analysis of banks financial statements is different from threat of other companies due to the special nature of assets and liabilities"

Following factors affects the evaluation of bank overall performance.

* The structures of balance sheet and profit/loss account.
* Operating efficiency and internal management system.
* Environment changes such as changes in Technology, Government, Competition, and Economy and due to globalization etc.
* Managerial decision taken by the top management regarding interest rate, lending policies exchange rates etc.


### 2.1.2 General Concept of Financial Analysis

Every business organization is established with view to earn profit. Bank is also established with the objectives of maximizing the profit and minimizing risk. Profit is necessary of long term existing of business. An Investor always seeking to invests in that area where there is increase in wealth. Financial statement is the indicator of business performance that whether business is profitable or not. Financial statement analysis is help to the decision maker for finding out favorable or unfavorable situation of a business concern. Financial statement analysis is important not only for the firm's managers but also for the firm's investors and creditors internally. Financial managers use the information provided by the financial analysis to help make financing and investments decisions to maximize the firm's value. Externally, stockholders and creditors use financial statement analysis to evaluate the attractive of the firm as an investment by examining its ability to meet its current and expected financial obligations. Financial analysis reflects the financial position of a firm, which is the process of determining the operational and financial characteristics of a firm. Financial analysis is the main indicator of success or failure of the company. The main function of financial analysis is the pinpointing of the strengths and weakness of a business undertaking by regrouping and analysis of figures contained in financial statement, by making comparison of various components and by examining their content. This can be used by financial managers as the basis to plan future financial requirement by means of forecasting and budgeting procedures.

Weston J.F.,Besely S.and Brigham E.F.(1996 p78) "Financial statement analysis involves a comparison of analysis firm's performance with that of other firms in the same line of the business which often is identified by the firm's industry classification. Generally speaking, the analysis is used to determine the firm's financial position in order to identify its current strength and weakness and to suggest actions that enable the firm to take advantage of the strength and correct its weakness".

Pandey I.M(1996 p45)"Financial analysis is the process of determining financial strengths and weakness of company by establishing strategic relationship between the components of analysis balance sheet and other operative date".

Hampton J.J.,OP.Cit,(1996 p99)"Financial analysis is used primarily to gain insight in to operating and financial problems conform the firms, with respect to these problems, we must be careful to distinguish between the cause of problem and symptom of it". It is thus an attempt to direct the financial statements in to their components on the basis of purpose in hand and establish relationship as between these components on the one hand as between individual components and totals of these items on the other. Along with this, a study of various important factors over the past several years is also undertaken to have clear understanding of changing profitability and financial condition of the business organization".

Myer J.N.[1961, P4]"Financial statement analysis is largely analysis study of relationship among the various financial factors in analysis business as disclosed by the single set of statement and analysis study of the trend of these factors as shown in analysis serous of statement".

Pradhan Surebdra [2000, p 120]"Financial analysis is to analysis the achieved statements to see if the results meet the objectives of the firm, to identify problems, if any in the past of present and /or likely to be in the future and to provide recommendation to solve the problems".

Hampton J.J.[1998, p98] "It is the process of determining the significant operating and financial statement. The goal of such analysis is to determining the efficiency and performance of the firm's management, as reflected in the financial records and reports".

### 2.1.3 Objectives of Financial Analysis

Financial analysis enables us to explore various facts related to the past performance of business and predict about the potential for achieving expected results. Major objective of analysis of financial statement is to assess various factors in relation to the business firm.
a. The short term and long term obligation of the concern Banks.
b. The possibility of development in the future forecasting and preparation of budgets.
c. The present and future earning capacity or profitability of the concern.
d. The comparative study regarding to one firm with another firm.
e. The operational efficiency of the concern as a whole and of its various parts or department.
f. The long term liquidity of its fund.
g. The financial stability of business concerns the real meaning and significance of financial data.

## - 2.1.4 Need of Financial Analysis

The need for the analysis of financial statement arises in order to address the following question:
a. How was the profile of institution? What was the problem rose? It so in what particular areas?
b. At present how the bank is performing? Is it doing better compared to the past performance, competitors and industry average? Is there any problem at present?
c. What about the future forecasting? Is there any likely problem? What will its strategic position be in the future?
d. What are the expected conclusions of recommendations? Are there improvements or drawbacks?

### 2.1.5 Limitation of Financial Analysis

Financial Analysis is of great important for investor, economist creditors, management and other parties having interest in business. It helps the management to evaluate its efficiency of its past performance and take decisions relating to the future forecasting, however, its limitation are not free from drawbacks which are listed below:

## Historical nature:

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

## Reliability of figure:

Reliability of analysis depends on reliability of the figures of the financial statements under inspection. The entire working of analysis will be vitiated by manipulation in the income statement, window dressing in the balance sheet questionable procedures adopted by the accountant for the valuation of fixed assets and such other facts.

## No substitute for judgment:

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

## Selection of appropriate tool

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

## Result may have different interpretation:

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

## Accounting methods

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

### 2.1.6 Technique of Financial Analysis

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

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

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

## Ratio analysis:

Ratio analysis is one of the important and mostly used financial analysis tools. Ratios express a logical relationship between financial elements. It is computed by dividing one
element/item/variable by another. Financial ratio analysis is designed to determine the relative strengths and weakness of business operations. It also provided framework for financial planning and control. Financial managers need the information provided by analysis both to evaluate the firm's past performance and to map future plans .Ratio analysis is widely used but no one ratio gives exact picture. Ratio analysis is analysis of numerical relationship between financial factors of financial statement.

Wixon, Kell and Bedford "A ratio is an expression of the quantitative relationship between numbers".

Dangol R.M"Ratio analysis is a technique of technique of analysis and interpretation of financial statement evaluates the performance of an organization by creating the ratio form the figure of different accounts consisting in balance sheet and income statement is known as ratio analysis."

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

Pandey I.M "A single ratio itself does not indicate favorable or unfavorable condition. It should be compared with some standard". As

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

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

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

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

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

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

* Liquidity Ratio
- Current Ratio
- Cash and Bank Balance to Total Deposit Ratio
- Cash and Bank Balance to Current Assets Ratio
* Activity Ratio
- Loan and Advance to Total Deposit Ratio
- Loan and Advance to Fixed Deposit Ratio
- Loan and Advance to Total working Fund Ratio
- Investment on Government Securities to Total Working Fund Ratio
- Investment on Government Securities to Total Working Fund Ratio
* Profitability Ratio
- Net Profit to Total Assets Ratio
- Net Profit to Total Deposit Ratio
- Net Profit to Net Worth Ratio
- Total Interest Earned to Total Working Fund Ratio
- Total Interest paid to Total Working Fund Ratio
* Leverage Ratio
- Debt-Asset Ratio
- Debt-Equity Ratio
* Capital Adequacy Ratio
- Shareholder Fund to Total Deposit Ratio
- Shareholder Fund to Total Assets Ratio


### 2.2 Review of Related Studies

### 2.2. 1Review of Journal

Shrestha (2047) in the journal entitled "commercial Bank's Comparative performance Evaluation", which was published in Karmachari Sanchay Kosh Publication, 2047 is review as follows:

The journal stresses on a proper risk management with appropriate classification of loans under performing and non performing category. Researcher further clarify that adequate provisioning is the surest way to get relief from sinking loan after careful consideration of portfolio risk. A clear out criteria is necessary to treat interest suspense account and it is advisable that all interest unpaid for more than six month need to be treated as unearned income. Regarding risk management of banks Dr.Shrestha's other suggestion are as follows:
> Any customer having overdue loan of two years or more in his account should not be given other loan facilities.
> Strong provisioning or reservation is required in restructuring portfolio relating to overdue loans.
$>$ All credits including overdrafts should be given a maturity date and should be subjected to revision at that date and consequently categorize as good substandard or doubtful loans.
> Financial credit worthiness of the borrower must be evaluated properly before granting the loans.

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

Poudel (2053), in the journal entitled, "Financial Statement Analysis: An Approach to Evaluate Bank's Performance" which was published NRB Samachar (An annual publication2053) is reviews as follows:

According to Poudel, Balance Sheet, Profit and loss a/c and the accompanying notes are the most useful aspects of the banks. It needs to understand the major characteristics of bank's balance sheet and profit and loss $\mathrm{a} / \mathrm{c}$.

The bank's balance sheet is composed of financial claims as liabilities in the form of deposits and as assets in the form of loans. Fixed assets account forms a small portion of the total assets financial innovations, which are generally contingent in nature, are considered as offbalance sheet item.

Interest received on loans and advances and investment and paid on deposit liabilities are the major components of profit and loss account. The uses of the financial statement of a bank need relevant, reliable and performance of the bank and which is useful to them in making economic decisions. The disclosure requirement of bank's financial statement has been expressly laid down in the concerned act. Commercials banking act 1974 requires the audited balance sheet \& profit loss account to be published in the leading newspaper for the information of general public.

According to Poudel, the principle objectives of analyzing financial statement are to identifying Liquidity, Profitability and Solvency. Most of users of the financial statement are interest in assessing the bank's overall performance which is affected by the following factors:
> The structure of Balance Sheet and Profit and Loss Account.
$>$ Operating efficiency and internal management system.
> Managerial decision taken by top management regarding interest, exchange rate, lending policies etc.
> Environmental changes \{Technology, Government, Competition and Economy.\}

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

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

### 2.2.2 Review of Article

Poudel (1996) gives more emphasis of financial performance of financial companies in the article "An Overview Financial Companies of Nepal". He had written that at the time 1996, the ratio of capital funds to deposit has been increasing over the time but on top of this, it is substantially below than the authorized level of deposit mobilization have even mobilized the deposits by more than ten times of their capital base by violating the regulatory norms issued by NRB. The credit/deposit ratio has remained quite high leaving the room for doubt about the quality of loan especially in the absence of repayment schedule. The loan diversification has been improved however, during a short span of time. As such the hire purchase housing and term loans are the major sectors, which all together received more than $95 \%$ of the total loan and advances in mid July 1996. Because of the mushrooming growth of the number of financial companies, the average sources of funds for each company are nature of decline. Since the varying factors, it is too early to evaluate the performance of financial companies in Nepal but equally important factor is that the regulatory and supervisory authority should keep close eyes to monitor their activities.

Pradhan (1997) in the article, "Transaction Analysis of Financial Companies in Nepal." Has concluded that the financial companies are centered in the city as like commercial banks. If this trends remains, the central bank is to consider novel strategy. However, financial and banking transaction don't take place in Zero, it factors of financial intermediaries. The emergence of closure of financial companies in market economy in common sense. But keeping in mind, the social and economic structure of our country, we should not turn a deaf ear to regional balance.

Poudel (1999) in the article, "present Condition of financial companies" has presented with compared to the commercial bank, the interest rate is relatively high that is provided and accepted by finance companies. The financial companies should not be confined only in the valley. They should extend their services to the rural sectors of hill and terai to reduce regional imbalance. The collection of deposit and loan investment done by the commercial banks also, to sustain themselves in the environment of competitions, they should introduce novel technology and equipment's to collect deposits and investments. They should learn from the drawbacks, failure and success of commercial banks to effectively maintain as alternative status.

Shrestha (2001) in the article "Capital adequacy of bank in the Nepalese context" has suggested that the banks deal in highly risky transactions to maintain strong capital base. He concluded that the capital base should neither be too much leading to inefficient allocation
of scare resources nor so weak degree of risk associated with them are subject to changes country wish, bank wish and time period wide.

### 2.2.3 Review of Past Thesis

Ghimire (2001) in the thesis entitled, "A study of financial performance of financial companies in Nepal" concludes that Nepalese finance companies face several problems to find mobilization and investment. They work with traditional approach. Finance companies have to revitalize their role require encouraging environment to be innovative and diversity their business to other depending only on time bound fixed deposit that can not always with the long term lending maturity structure. Financial companies continue to have a gradual diversification of their functions by shifting a considerable portion of their assets. In this way he give force to reallocation the funds and diversity such funds innovative and higher profitable area.

Gurung (2002) in the study entitled with "A financial study of joint venture bank: A comparative study of Nepal Grindlays bank limited and Nepal Indosuez Bank Limited. "Has found that profitability records of both the banks have registered an increasing trend during the first half of the study period and have decreased thereafter. He found that the liquidity, profitability and dividend payout ratio of both the banks seem to be favorable and both the banks have been able to mange satisfactory level of capital adequacy ratio in the subsequent years, which is well above the required adequacy norm. he also recommended that both the banks are required to maintain improved capital structure by increasing equity base i.e. issuing more capital, expanding general reserve and retaining more earnings and wide range of fluctuation in the cash/ bank to deposit ratio of both the bank should be stabilized after proper diagnosis of the root cause. He had suggested further that both banks should try hard to earn operational profit by increasing their operational efficiencies, mobilizing resource more efficiently or by minimizing operating expenses as far as possible or the both. He has focused mainly return on deposit of NGBL and NABIL in his study.

Shakya (2004) in the thesis "Financial Analysis of JVBs in Nepal" has found that higher debt equity ratio, inadequate investment on priority sector. Highly invested on government securities and debenture, bonds. Lower profit margin due to higher operating cost and higher interest expenses in both banks of NABL(Nepal Arab Bank Limited) and NGBL. On the other EPS, DPS are increasing each year. Liquidity position of the bank is satisfactory. Return ratios are in flotation trend where ROA, ROE of NABIL is higher than that of NGBL.NGBL's profit ability is more satisfactory than that of NABL.

Joshi (2001) in the thesis "A study on Commercial Banks of Nepal With Special Reference to Financial Analysis of Rastriya Banijya Bank' has concluded that liquidity position of the bank has maintained low- liquidity than required. Gradual increase in the amount of funded debt and highly geared capital structure seem to be negative performance for the bank
moreover, return on assets is not satisfactory. The research suggests that the bank should invest its resources in more productive sectors and equity financing should be emphasized.

### 2.3 Research Gap

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

No research has been undertaken regarding the comparative analysis of financial analysis between the Nabil Bank and Everest Bank. Some researcher has done the comparative studies of other joint venture bank. But I am willing to study with the following sample banks. Financial analysis is the major function of every commercial bank for evaluating the financial performance. Therefore it is the major concern of stockholders to know the situation of the bank.

Nabil Bank and Everest Bank Limited are the lending joint venture commercial banks of the country having the huge market share and its investment. These banks have significant impact on developing the economy of the country. Every year the financial performance is fluctuating according to the social and political condition of the country. Hence, I hope this study fulfills the prevailing research gap about in depth. Analysis of the financial performance is the major concern of the shareholders and stakeholders.

## CHAPTER -THREE

## RESEARCH METHODOLOGY

The rationale behind the study is to analyze, examine and compute financial performance of Nabil Bank Limited and Everest Bank Limited. Thus, this includes those methods and techniques used for finding out before said objectives.

Research methodology refers to the various segmental steps (along with the rationale of each step) to be adopted by a reporter in studying a problem with certain objectives in a view. It is a way to solve the research problem systematically. It includes the various steps that are generally adopted by a researcher in studying his or her research problem along with the logic behind them. It would be appropriate to mention here that research project is not meaningful to any one unless they are in sequential order which will be determined by the particular problem at hand. This chapter focuses and deals with the following aspects of methodology.
$>$ Research design
> Population and sample
> Sources of data
> Methods of data analysis

### 3.1 Research Design

Research Design is the plan structure and strategy of investigation conceived to obtain answer to research question. The basic objective of this study is to evaluate the financial performance of Nabil BL. And EBL. The research design of this study is analytical as well as descriptive approaches to evaluate the financial performance of these banks.

### 3.2 Population and Sample

Nowadays, a number of commercial banks have emerging rapidly. Some have established and other are in the process of establishment. Here, all the commercial banks are population of the study and Nabil BL. and EBL have been selected as sample for the present study. And only latest five years financial statements are analyzed. The banks are two among the six joint venture banks similar financial position.

List of "A" Class Licensed Commercial Banks from Nepal Rastra Banks are as follows (Mid July 2011)

| SN. Name | Operation Date (A.D.) |
| :---: | :---: |
| Nepal Bank Limited | 1937/11/15 |
| Rastriya Banijya Bank | 1966/01/23 |
| Nabil Bank Limited | 1984/07/16 |
| Nepal Investment Bank Limited | 1986/02/27 |
| Standard Chartered Bank Nepal Limited | 1987/01/30 |
| Himalayan Bank Limited | 1993/01/18 |
| Nepal SBI Bank Limited | 1993/07/07 |
| Nepal Bangladesh Bank Limited | 1993/06/05 |
| Everest Bank Limited | 1994/10/18 |
| Bank of Kathmandu Limited | 1995/03/12 |
| Nepal Credit and Commercial Bank Limited | 1996/10/14 |
| Nepal Industrial \& Commercial Bank Limited | 1998/07/21 |
| Lumbini Bank Limited | 1998/07/17 |
| Machhapuchhre Bank Limited | 2000/10/03 |
| Kumari Bank Limited | 2001/04/03 |
| Laxmi Bank Limited | 2002/04/03 |
| Siddhartha Bank Limited | 2002/12/24 |
| Agriculture Development Bank Limkited | 2006/03/16 |
| Global Bank Ltd. | 2007/01/02 |
| Citizens Bank International Ltd. | 2007/06/21 |
| Prime Commercial Bank Ltd. | 2007/09/24 |
| Bank of Asia Nepal Ltd. | 2007/10/12 |
| Sunrise Bank Ltd. | 2007/10/12 |


| Development Credit Bank Ltd. | 2008/05/25 |
| :--- | :--- |
| NMB Bank Ltd. | $2008 / 06 / 05$ |
| Kist Bank Limited | $2009 / 05 / 07$ |
| Janata Bank Nepal Ltd. | $2010 / 04 / 05$ |
| Mega Bank Nepal Ltd. | $2010 / 07 / 23$ |
| Commerz \& Trust Bank Nepal Ltd. | $2010 / 09 / 20$ |
| Civil Bank Ltd. | $2010 / 11 / 26$ |
| Century Commercial Bank Ltd. | $2011 / 03 / 10$ |

### 3.3 Source of Data

The main sources of data for this study are secondary data. Besides, necessary suggestions are taken from various experts both inside and outside of the banks whenever required other sources of data are:-

* Bulletins and reports
* Annual report of Nabil BL and EBL
* Discussion with financial officers and experts.


### 3.4 Methods of Data Analysis

Financial performance is analyzed through the use of two important tools. The first most important tool is the financial tool that includes ratio analysis.

### 3.4.1 Financial Tools

In this research study, there are various financial tools but only selected ratios are used on the study:-

### 3.4.1.1 Ratio Analysis

Although there are many financial tools, we have no extensively used ratio analysis methods. The suitable process of knowing the financial strength and weakness of the company by properly establishing relationships between the items and the balance sheet and the profit and loss account is "Financial performance analysis". Ratio analysis is a power tool of financial analysis. To achieve an effective result ratio must analyzed in a comparative
basis. "The technique of ratio analysis is a part of the whole process of the analysis of the financial statement of any business or business or industrial concern especially to take output and credit decision."
"In financial analysis, a ratio is used as a bench mark for evaluating the financial position and performance of a firm."

The following ratios are going to be analyzed under the financial performance analysis of EBL and Nabil BL.
a) Liquidity Ratio
b) Leverage Ratio
c) Activity (or utilization) Ratios.
d) Profitability Ratio
e) Other essential Ratios (i.e. ROI,EPS,DPS, and income and expenditure Analysis) In brief, the following major ratios are used to analyze the financial performance:-

## 1. Liquidity Ratio

a) Current Ratio
b) Cash and Bank Balance to deposit Ratio (without fixed deposit)
c) Cash and Bank Balance to Current Deposit Ratio
d) Fixed Deposit to Total Deposit

## 2. Activity Turnover Ratio

a) Loan and Advance to Total Deposit ratio
b) Loans and Advance to Fixed Deposit Ratio
c)Loans and Advance to Saving Deposit Ratio
d) Investment by Total Deposit Ratio
3. Leverage Ratio
a) Debt-Equity Ratio
b) Debt-Assets Ratio

## 4. Profitability Ratios

a) Net profit to Total Assets Ratio
b) Net profit to Total Deposit Ratio
c) Return to Net Worth (Share Holder's Equity)
d) Net profit Margin

## 5. Income and expenditure analysis

## 6. Other Ratios

a) Return on Investment (ROI)
b) Earnings Per Share (EPS)
c) Dividend Per Share (DPS)

1. Liquidity Ratio: - Liquidity ratio measures the firm's ability to meet current obligation. In fact analysis of liquidity needs for the preparation of cash budgets and cash and funds flow statement but liquidity ratio, by establishing a relationship between cash and other current assets to current obligation, provides quick measure of liquidity. A firm should ensure that it does not suffer from lack of liquidity and also that it does not have excess liquidity.
a) Current Ratio: - The current ratio is a measure of the firm's short- term solvency. It indicates the availability of current assets in rupees for every one rupee of current liability or $2: 1$ is normal standard of current ratio. A ratio of greater than means, that the firm has more current assets than current liabilities.

## i.e. Current Ratio=Current Assets/Current Liability

Current assets include cash and other assets which can be converted into cash within one year i.e. debtors, inventories, account receivable, bills purchased, marketable, securities, discount, advance and overdraft and prepaid expenses etc. The current liability is defined as liability which are short-term maturing obligation to be met within a year i.e. bills payable, banks credit, trade creditors, provision for taxation, dividends payable and outstanding expenses etc
b) Cash and Bank Balance to Deposit Ratio (without fixed deposits):-This ratio is used to measure whether bank and cash balance is sufficient to cover its current call margin including deposits (excluding fixed deposits). The ratio is calculated as:-

Cash and Bank Balance to Current Deposit Ratio: - This ratio indicates the ability of banks current fund to cover this current ratio. The failure of a company to meet its obligation due to lack of sufficient liquidity, will result in poor credit worthiness, loss of creditors etc. But a very high degree of liquidity is also bad, idle assets earn nothing.

> This ratio is calculated as = Cash and Bank Balance/Current Deposits
d) Fixed Deposit to Total Deposit Ratio: - Fixed deposits are long term investment. This ratio is calculated as:-

Fixed deposit to total deposit ratio=Fixed Deposit/Total Deposit
2. Activity Turnover Ratio:-Activity ratios or utilization ratios are employed to measure the efficiency with which the bank managers and utilizes its resources. This ratio is also called efficiency ratio or asset utilization ratio or turnover ratio because they indicate speed with which assets are being converted or turned over into profit generating assets. in this section, some of the activity ratios are calculated to measure the efficiency of assets management of Nabil BL and EBL, which are as follows:-
a) Loans and advances to Total Deposit Ratio= Total Loans and Advance/Total Deposits
b) Loan and Advance to Fixed Deposit Ratio=Loans and Advances/Fixed Deposits
c) Loan and Advance to Saving Deposits Ratio: - This ratio assesses, how many times the fund is used to loan and advances against saving deposit. It calculated as:-

Loan and Advances to Saving Deposit Ratio=Loans and Advances/Total saving Deposits
d) Investment by Total Deposits Ratio:-this ratio basically measures the capacity utilization. This ratio is calculated as:-

Investment by Total Deposit Ratio=Total Investment/Total Deposits
3. Leverage Ratio (Capital Structure Ratio):- The short term creditors are more concerned with the firm's current debt-paying ability. On the other hand, long term creditors are more concerned with the firm's long term financial strength. In fact, a firm should have a strong short as well as long -term financial position. To judge the long-term financial position of the firm, financial leverage or capital structure ratios are calculated. The following two ratios are examined under leverage ratio.
a) Debt-Equity Ratio: - This relationship describes the lender's contribution for each rupee of the owner's contribution is called Debt-equity ratio. D/E ratio is directly computed by dividing total debt by net worth.
D/E Ratio=Total Debt/Net Worth (Share Holder's Equity)

Total Debt refers to different between total liabilities and capital and shareholder fund.
b) Debt-Assets Ratio:-This ratio is calculated by dividing total debt by total assets. This is stated as:-

> D/A Ratio =Total Debt/Total Assets
> "A total asset refers to Total Assets from balance sheet items."
4. Profitability Ratio: - profit is the different between revenues and expenses over a period of usually one year. Profit is the ultimate output of a company and it will have no future fails to make sufficiency profit. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of profits. The profitability ratio is calculated to measures the operating efficiency of the company.

Profitability ratio can be determined on the basic of either sales or investment. Major profitability ratios are under:-
a) Net profit to Total Assets Ratio: - this ratio is measured by dividing net profit after tax (NPAT) by total assets. This can be stated as NPAT/Total Sales.

NPAT indicates with portion of income is left to the internal equities after all costs, expenses have been deducted.
b) Net Profit to Total Deposit Ratio: - This ratio is computed by dividing the net profit by total deposits. It can be stated as follows:-

> Net profit to Total Deposit ratio=Net profit/Total Deposits
c) Return to Net worth (Shareholder's Equity):-Net worth is fund out by subtracting the total external liabilities from total assets. (Total assets excluding the intangible assets and accumulated loss). This ratio is computed by:-

Return to Net Worth $=$ NPAT/Net Worth
Higher ratio indicates efficiency of the firm. For the interest of the company, this ratio determines whether the investments in the firm are attractive or not.
d) Net Profit Margin: - Net profit is obtained when operating expenses, interest and taxes are subtracted from the gross profit. So the net profit margin ratio is measured by dividing profit after tax by total gross earning.

> Net Profit Margin = Profit after Tax/Gross Earning

Net profit margin ratio establishes a relationship between net profit and sales and indicates management's efficiency in manufacturing, administering and selling the products. This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. If the net profit is inadequate, the firm will fail to achieve satisfactory return on shareholder's funds. This ratio also indicates the firm's capacity to withstand adverse economic conditions. A firm with a high net margin ratio would be in an advantages position to survive in the face of falling selling price, rising cost of production or declining demand for the product. It would really be difficult for a low net margin firm to withstand these adversities.
5. Income and Expenditure Analysis:- In this analysis, we must be concerned with what percentage of operating incomes and expenses that are compute to find out how much percentage of operating income and expenditure are made in these joint venture banks.
6. Other Ratios: - these other ratios are very necessary to study a financial performance of two joint venture banks. The other ratios are follows:-
a) Return on Investment:-the conventional approach of calculating return on investment is dividing NPAT by investment. It can be stated as:-

## ROA $=$ NPAT/Investment

There are three different concepts regarding investment such as:-
(i)Return on Assets: - ROA deals with the relationship between profit and assets ROA is computed by dividing NPAT by Total Assets.
(ii)Return on Capital Employed: - ROCE is computed as:-

> ROCE = NPAT/Capital Employed
> Capital Employed is equal to net worth plus total debt.
(iii)Return on Shareholders Equities:- ROSE is calculated to see the profitability of owner's investment. The shareholders equity or net worth will include paid-up capital, share premium and reverse and surplus less accumulated los. The ratio is computed as:-
ROSE =NPAT/Share holders Equity
b) Earnings Per Share (EPS):- the EPS is calculated by dividing the profit after tax by the total number of common shares outstanding.

> EPS =Profit after tax/No. Of Common Shares outstanding

EPS calculations made over year indicate whether or not the firms earning power on pershare basis has changed over the period. The EPS of the company should be compared with the industry average and the earning per share of other firms. It does not reflect how much is paid s divided and how much is retained in the business. But as a profitability index, it is a valuable and widely used ratio.
c) Divided Per share (DPS):- DPS is the earning distributed to ordinary shareholders divided by the numbers of ordinary share outstanding.

DPS=Earning paid to shareholders (dividend)/Number of ordinary shares outstanding

### 3.4.2 Statistical tools

The statistical tools related for the comparison of Nabil BL and EBL are as follows:-

### 3.4.2.1 Arithmetic Mean

Arithmetic mean or simply a 'mean' of a set of observation is the sum of all the observation divided by the number of observation.

Arithmetic mean is also known as the arithmetic average. In general $X_{1}, X_{2} \ldots \ldots \ldots X_{n}$ be the n values of the variable than their arithmetic mean is denoted by x mean is defined by:$\overline{\mathrm{X}}=\frac{\mathrm{X}_{1}+\mathrm{X}_{2}+\ldots \ldots \ldots \ldots \ldots \ldots . . \mathrm{X}_{\mathrm{n}}}{\mathrm{n}}$

Or, $\bar{X}=\frac{\sum \mathrm{X}}{\mathrm{n}}$

### 3.4.2.2 Standard Deviation (S.D.)

The standard deviation is the absolute measures of dispersion in which the drawbacks present in other measures of dispersion are removed

Standard deviation is defined as the positive square root of the mean of the square of the deviation taken from the arithmetic mean. It is denoted by

Standard Deviation $(\boldsymbol{\sigma})=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}$

Where,
$\mathrm{X}=$ Expected return of the historical data.
$\mathrm{N}=$ Number of observations.

### 3.4.2.3 The Co-efficient of variation, (C.V.)

The relative measure of dispersion is the co-efficient of variation, comparable across distribution, which is defined as the ratio of the standard deviation to the mean expressed in present.

In symbol:-
C.V. $=\frac{\sigma}{\bar{X}} X 100$

Where,

```
    \sigma = Standard Deviation
\overline{X}}\quad=\quad\mathrm{ Mean Value of Variances
```

Coefficient of variance is also useful in comparing the amount of variation in data groups with different mean. It is the relative measure of dispersion. A distribution with smaller coefficient is said to be more homogeneous than the other. On other hand, a series with greater coefficient of variance is said to be more variable of heterogeneous than the other (Gupta, S.C.; 2000:416)

### 3.4.2.4 Hypothesis Test, F-Test (ANOVA Test)

For the validity of the F -Test in ANOVA the following assumptions are made
(i) The population for each sample must be normally distributed with same mean and variance.
(ii) All sample observations must be randomly related and independent.
(iii) Various treatment and environmental effects are additive in nature.

ANOVA is mainly carried out as under:-
(i) One-way classification
(ii) Two- way classification

ANOVA in one-factor experiments in which subject or experiments units are randomly assigned to group or levels of a single factor are called one-way completely randomized design models. In other words, under one -way classification, the influence of only one factor is considered at a time and we may conduct the experiment through number of sample studies. There are following step of one way ANOVA.

## Step-1:- Formulation of null and alternative hypothesis

Ho: $\mu 1=\mu 2$, that is; mean of Nabil BL and EBL are equal. In other words, there is no significant different between mean (average) of Nabil BL and EBL.

## Step-2:- Computation of Test statistics

Under the null Hypothesis Ho, the one way ANOVA, F-Test statistic is,

$$
\mathrm{F}=\mathrm{MSC} / \mathrm{MSE}
$$

Where, MSC means sum of square between column or (samples), and MSE means sum of square due to error (i.e. within samples)

## Step-3:- Calculation of Required Item

(i) $\quad$ Grand Total $(T)=\sum \times 1+\sum \times 2+$ $+\sum x n$
(ii) Total no. of observation(N) $=\mathrm{n} 1+\mathrm{n} 2+$ $+n n$
(iii) Correlation factors (C.F.) $==\frac{\mathrm{T}^{2}}{\mathrm{~N}}$
(iv) Sum of squares due to column (SSC)

$$
\mathrm{SSC}=\frac{\left(\sum \mathrm{X}_{1}\right)^{2}}{\mathrm{~N}_{1}}+\frac{\left(\sum \mathrm{X}_{2}\right)^{2}}{\mathrm{~N}_{2}}+\ldots \ldots \ldots \ldots \ldots \ldots+\frac{\left(\sum \mathrm{X}_{\mathrm{n}}\right)^{2}}{\mathrm{~N}_{\mathrm{n}}}-\text { C. } . \mathrm{F} .
$$

(v) Sum of squares due to total (SST):-
(vi) $\operatorname{SST}=\sum \mathrm{x}_{1}^{2}+\sum \mathrm{x}_{2}^{2}+\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots+\sum \mathrm{x}_{\mathrm{n}}{ }^{2}-$ C. F.
(vii) Sum of square due to error (SSE):-

SSE=SST-SSC
(viii) Preparation of ANOVA Table

## One way ANOVA Table

| Source of Variations | Sum of <br> Squares | Degree of <br> Freedom | Mean Sum of <br> Square (MMS) | F-Ratio |
| :--- | :--- | :--- | :--- | :---: |
| Between Sample or <br> Columns | SSC | $\mathrm{C}-1$ | $\mathrm{MSC}=\mathrm{SSC/C-1}$ |  |
| Within Samples (due <br> to error) | SSE | $\mathrm{N}-\mathrm{C}=\mathrm{N}-1-(\mathrm{C}-1)$ | $\mathrm{MSE}=\mathrm{SSE} / \mathrm{N}-\mathrm{C}$ | $\mathrm{F}=\mathrm{MSC} / \mathrm{MSE}$ |
| Total | SST | $\mathrm{N}-1$ |  |  |

## Step-4:- Obtain the tabulated value of F for

(C-1, N-C) degree of freedom at $a=5 \%$ level of significance unless otherwise stated.

## Sep-5:-Decisions:-

Making a decision by comparing the calculated value of F with tabulated value of F , since, Cal $F$ is less than Tab of .05 at $5 \%$ level of significance, we accept Ho. Otherwise, H 1 is accepted.

## CHAPTER-FOUR

## DATA PRESENTATION AND ANALYSIS

The basic objective of analyzing the performance and interpretation is to high light the strength and weakness of the business. Therefore, in this chapter, we find out the financial performance of the banks through financial statistical tools i.e. ratio analysis and hypothesis (ANOVA- one way) test and mean s.d. and c.v. Consequently, this analysis help the management take benefit of strategic management technique by providing the information regarding the strengths and weakness of the two JVBs, so as to exploit the opportunities lying in the environment and manage the threats posed by the environment.

### 4.1 Financial Ratio analysis

Various ratios are computed from the balance sheet and profit and loss account. The important tools of the ratio analysis are a below:-
4.1.1 Liquidity Ratio: - The liquidity ratio is applied to measure the ability of the banks to meet the short -term obligation. A high liquidity ratio shows the financial strengthness of the firms. A standard liquidity ratio must be 2:1.The ratio analyzed under liquidity ratio is as follows:-
4.1.1.1 Current Ratio:- In this study, current assets includes the cash and bank balance money at call, bills purchased and discounted, loans, advances and overdraft and investment in Government of Nepal securities and other assets . a current liquidity include the short- term borrowing (loan), customer deposit of excluding fixed deposits, bills payable and other liabilities.

The standard current ratio is $2: 1$. If the ratio is less than $2: 1$ the solvency position of the bank is not good. If the ratio is more than 2:1, the bank may have an excessive investment in current assets. So each bank must maintain an adequate amount of current assets to meet the current obligation.

Calculation of current ratios is as follows:-
Current Ratio $=\frac{\text { Current Assets (CA.) }}{\text { Current Liabilities (CL.) }}$

Table- 4.1

## Current Ratio (in times)

(Rs. in Million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Current <br> Assets | Current <br> Liabilities | Ratio | Current <br> Assets | Current <br> Liabilities | Ratio |
| $2006 / 07$ | 11208.60 | 23914.60 | 0.47 | 8525.30 | 15164.60 | 0.56 |
| $2007 / 08$ | 15208.60 | 32353.60 | 0.47 | 9282.00 | 19219.20 | 0.48 |
| $2008 / 09$ | 15942.80 | 38247.00 | 0.42 | 12402.90 | 28202.50 | 0.44 |
| $2009 / 10$ | 16796.00 | 44023.20 | 0.38 | 12804.70 | 28564.20 | 0.45 |
| 2010/11 | 17165.30 | 39346.40 | 0.44 | 14300.10 | 28132.80 | 0.51 |
| Mean |  |  | $\mathbf{0 . 4 4}$ | Mean |  | $\mathbf{0 . 4 9}$ |
| S.D |  |  | $\mathbf{0 . 0 4}$ | S.D |  | $\mathbf{0 . 0 5}$ |
| C.V (\%) |  |  | $\mathbf{8 . 4 9}$ | C.V (\%) |  | $\mathbf{9 . 8 4}$ |

[Sources: Appendix 1]

## Chart-4.1

## Current Ratio


fiscal Year

It is already mentioned that the standard current ratio is: This table is clearly showing the current ratios of the two banks named NBL and EBL. The above table shows that the average ratio of last 5 years of NBL is 0.44 whereas 0.49 of EBL. So, between two banks the table indicates that both the banks are below than the normal standard but EBL is slightly better than NBL.

The current assets and current liabilities of NBL in the FY year 2006/07 is 0.47, whereas in $2010 / 2011$ it is 0.44 . The shows the decreasing trend of current ratio which means that the bank's obligation to pay its short term liability has deteriorated in these years but the average current ratio has increased to 0.48 . Similarly, the current assets and current
liabilities of EBL is the FY year 2006/07 is 0.56 , whereas in $2010 / 11$ it is 0.51 . With average ratio of 0.49.

On the basis of variation C.V. of EBL is higher than NBL (9.84\%>8.49\%). This shows that the variability of the ratio is higher in EBL.

From the above analysis, it is proved that, EBL is better short-term solvency position as compared to NBL in the fiscal year 2006/2007 to 2010/20011

### 4.1.1.2 Cash and Bank Balance to Total Deposit Ratio (without fixed

 deposited):-This is computed by dividing cash and bank balance by total deposits (except fixed deposits).$$
\frac{\text { Cash+Bank Balance }}{\text { Total Deposit (Exceptfixed) }}
$$

A high cash and bank balance refers the greater ability to cover their deposit excluding fixed deposit and vice versa. But very high ratio is disadvantage, as ideal assets earn nothing. The ratio is as follows:-

Table-4.2

## Cash and Bank Balance to Total Deposit Ratio (Except fixed Deposit) in Percentage

(Rs in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Cash and Bank <br> Balance | Total <br> Deposits | Ratio | Cash and <br> Bank Balance | Total <br> Deposits | Ratio |
| $2006 / 07$ | 1399.60 | 17907.20 | 7.82 | 3329.70 | 13439.00 | 24.78 |
| $2007 / 08$ | 2671.10 | 23450.90 | 11.39 | 2852.40 | 17378.30 | 16.41 |
| $2008 / 09$ | 3372.50 | 29037.60 | 11.61 | 6164.40 | 26228.20 | 23.50 |
| $2009 / 10$ | 1395.60 | 31623.70 | 4.41 | 7818.80 | 26492.00 | 29.51 |
| $2010 / 11$ | 2432.00 | 32850.60 | 7.40 | 6122.90 | 26066.00 | 23.49 |
| Mean |  |  | $\mathbf{8 . 5 3}$ | Mean |  | $\mathbf{2 3 . 5 4}$ |
| S.D |  |  | $\mathbf{3 . 0 2}$ | S.D |  | 4.69 |
| C.V (\%) |  |  | $\mathbf{3 5 . 3 9}$ | C.V (\%) |  | $\mathbf{1 9 . 9 3}$ |

## Chart -4.2

## Cash and Bank Balance to Total Deposit Ratio (Except fixed Deposit) in Percentage



Fiscal Year

With comparing annually, EBL shows higher ratio than NBL. Holding of more cash and bank balance mean keeping the assets idle. So, from the above analysis, EBL is holding more idle balance of cash and bank which is one of the main factors for less profit .it is suggested to EBL to use funds in other securities.

The average ratio of EBL is $23.54 \%$ which is higher than NBL of $8.53 \%$. And with comparing to average ratio; EBL is more profitable because the liquidity position of EBL is better than that of NBL.

According to C.V Ratio, EBL has higher C.V (35.39\%) where as NBL has lower C.V. (19.93\%). This explains that NBL is more preferable than EBL.EBL has high risk or the variability of the ratio is lower in NBL than EBL.

From the above analysis, it is concluded that, the cash and bank balance position with respect to total deposit expect fixed deposit, is better performance in the case of NBL than EBL.
4.1.1.3 Cash and Bank Balance to Current Deposit: - This ratio shows the ability of banks' immediate funds to cover the current deposits.

$$
\text { Cash and bank balance to current deposit ratio= } \frac{\text { Cash+Bank Balance }}{\text { Current Deposit }}
$$

A higher ratio refers the greater capacity to cover this current deposit but a very high ratio is also bad, because idle assets earn nothing.

The computation of this ratio is shows in following tab

Table-4.3

## Cash and Bank Balance to Current Deposit Ratio (in Percentage)

(Rs. In million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Cash and Bank <br> Balance | Current <br> Deposit | Ratio | Cash and <br> Bank Balance | Current <br> Deposit | Ratio |
| $2006 / 07$ | 1399.60 | 3446.10 | 0.41 | 3329.70 | 2620.00 | 1.27 |
| $2007 / 08$ | 2671.10 | 5365.80 | 0.50 | 2852.40 | 2492.30 | 1.14 |
| $2008 / 09$ | 3372.50 | 5515.90 | 0.61 | 6164.40 | 4859.90 | 1.27 |
| $2009 / 10$ | 1395.60 | 7920.70 | 0.18 | 7818.80 | 4173.30 | 1.87 |
| $2010 / 11$ | 2432.00 | 5818.40 | 0.42 | 6122.90 | 4791.20 | 1.28 |
| Mean |  |  | $\mathbf{0 . 4 2}$ | Mean |  | $\mathbf{1 . 3 7}$ |
| S.D |  |  | $\mathbf{0 . 6 0}$ | S.D |  | $\mathbf{0 . 2 9}$ |
| C.V (\%) |  |  | $\mathbf{3 8 . 1 0}$ | C.V (\%) |  | $\mathbf{2 1 . 0 5}$ |

[Sources: Appendix 3]

## Chart- 4.3



Cash and Bank Balance to Current Deposit Ratio

## Fiscal Year

This table shows the cash and bank balance to current deposit ratio. The highest ratio of NBL is $0.61 \%$ in the fiscal year 2008/09 and lowest ratio is $0.18 \%$ in 2009/10 and average ratio is $0.42 \%$. Similarly, the highest ratio of EBL is in the fiscal year 2009/10 where it is $1.87 \%$ and lowest in the year 2007/08 of $1.14 \%$ and the average ratio is $1.37 \%$. The average ratio of EBL is higher than NBL i.e. $1.37 \%>0.42 \%$.

However, a very high ratio indicates the unwise investment decision. The shows that NBL bank is unable to invest its current deposits in productive or profitable area.

### 4.1.1.4 Fixed Deposit to Total Deposit Ratio:-Fixed deposits are long term deposits

 and bank can mobilize it on investment, loan and advance. It is the most important long term financial resources for a bank. The following table shows the fixed deposit ratio of the two banks.Fixed deposits to total deposits $=\frac{\text { Fixed Deposit }}{\text { Total Deposit }}$
Table- 4.4

## Fixed Deposit to Total Deposit Ratio (in Percentage)

(Rs. In million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Fixed Deposit | Total <br> Deposit | Ratio | Fixed <br> Deposit | Total <br> Deposit | Ratio |
| 2006/07 | 5435.20 | 23342.40 | 23.28 | 5658.70 | 19097.70 | 29.63 |
| $2007 / 08$ | 8464.10 | 31915.00 | 26.52 | 6598.00 | 23976.30 | 27.52 |
| $2008 / 09$ | 8310.70 | 37348.30 | 22.25 | 7094.70 | 33322.90 | 21.29 |
| $2009 / 10$ | 14711.10 | 46334.80 | 31.75 | 10440.30 | 36932.30 | 28.27 |
| 2010/11 | 16840.80 | 49691.40 | 33.89 | 15061.90 | 41127.90 | 36.62 |
| Mean |  |  | $\mathbf{2 7 . 5 4}$ | Mean |  | $\mathbf{2 8 . 6 7}$ |
| S.D |  |  | $\mathbf{5 . 1 3}$ | S.D |  | $\mathbf{5 . 4 6}$ |
| C.V (\%) |  |  | $\mathbf{1 8 . 6 2}$ | C.V (\%) |  | $\mathbf{9 . 0 5}$ |

[Sources: Appendix 4]

## Chart- 4.4

Fixed Deposit to Total Deposit Ratio


Fiscal Year

According to the above table, the highest ratio of NBL is $33.89 \%$ in 2010/11 and the lowest ratio is $22.25 \%$ in fiscal year 2008/09 and on an average of $27.54 \%$. Similarly, the highest ratio of EBL is $36.62 \%$ in the fiscal year $2010 / 11$ and lowest is $21.29 \%$ in the fiscal year 2008/09 and on an average of 28.67 .

The average ratio of EBL is higher than NBL. This table shows that shows that EBL's Liquidity position is better than NBL. The higher proportion of fixed deposits indicates the stronger liquidity position.

### 4.1.2 Activity Turnover Ratio

This ratio is used to examine the efficiency with which the from manages and utilities its assets. The better the management of assets, the large is the amount utilization of the funds. Some of the activity turnover ratio is as follows:-
4.1.2.1 Loan and Advances to Total Deposit ratio: - This ratio is employed to measure the utilization of their total deposit on loan and advance. Higher ratio indicates the proper utilization of deposit and lower ratios is the signal of balance remained unutilized.

Loan and Advance to Total Deposit $=\frac{\text { Loan and Advance }}{\text { Total Deposit }}$
Table -4.5

## Loan and Advance to Total Deposit Ratio (in Percentage)

(Rs. In million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Loan and <br> Advance | Total <br> Deposits | Ratio | Loan and <br> Advance | Total <br> Deposits | Ratio |
| $2006 / 07$ | 13021.30 | 23342.40 | 55.78 | 14059.20 | 19097.70 | 73.62 |
| $2007 / 08$ | 21514.60 | 31915.00 | 67.41 | 18814.30 | 23976.30 | 78.47 |
| $2008 / 09$ | 27816.60 | 37348.30 | 74.48 | 24366.20 | 33322.90 | 73.12 |
| $2009 / 10$ | 32902.80 | 46334.80 | 71.01 | 28129.70 | 36932.30 | 76.17 |
| $2010 / 11$ | 38765.60 | 49691.40 | 78.01 | 31534.70 | 41127.90 | 76.67 |
| Mean |  |  | $\mathbf{6 9 . 3 4}$ | Mean |  | $\mathbf{7 5 . 6 1}$ |
| S.D |  |  | $\mathbf{8 . 5 4}$ | S.D |  | $\mathbf{2 . 2 2}$ |
| C.V (\%) |  |  | $\mathbf{1 2 . 3 2}$ | C.V (\%) |  | $\mathbf{2 . 9 4}$ |

[Sources: Appendix 5]

## Chart-4.5

## Loan and Advance to total deposit Ratio



Fiscal Year
The table 4.5 shows the loans and advance to total deposit ratio. The lowest ratio of NBL is $55.18 \%$ in the fiscal year 2006/07 and the highest ratio is $78.07 \%$ in the year 2010/11 and the average ratio is $69.34 \%$ similarly, the lowest ratio of EBL is 73.12 \% in 2008/09/and the highest ratio is $78.47 \%$ in the fiscal year 2007/08 and the average ratio is $75.61 \%$.the average ratio of EBL is higher than that of NBL (75.61\%>69.34\%).

According to co- efficient of variation, NBL is more fluctuating than EBL over the study period .the C.V. of NBL is $12.32 \%$ which is higher than EBL which is $2.94 \%$.
4.1.2.2 Loan and Advance to Fixed Deposit Ratio: - This ratio examines that how many times the fund is used in loans and advances against fixed deposits. Bank must be utilized the fixed deposit properly.

Loan and Advance to Fixed Deposit=$=\frac{\text { Loan and Advance }}{\text { Fixed Deposit }}$
Table- 4.6
Loan and Advance to Fixed Deposit Ratio (in Percentage)
(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Loan and <br> Advance | Fixed <br> Deposit | Ratio | Loan and <br> Advance | Fixed <br> Deposit | Ratio |
| $2006 / 07$ | 13021.30 | 5435.20 | 239.57 | 14059.20 | 5658.70 | 248.45 |
| $2007 / 08$ | 21514.60 | 8464.10 | 254.19 | 18814.30 | 6598.00 | 285.15 |
| $2008 / 09$ | 27816.60 | 8310.70 | 334.71 | 24366.20 | 7094.70 | 343.44 |
| $2009 / 10$ | 32902.80 | 14711.10 | 223.66 | 28129.70 | 10440.30 | 269.43 |
| $2010 / 11$ | 38765.60 | 16840.80 | 230.19 | 31534.70 | 15061.90 | 209.37 |


| Mean | 256.46 |  | Mean |  | 271.70 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SD |  | 45.22 |  | S.D |  | 49.39 |
| C.V(\%) | 17.63 |  | C.V (\%) | 18.21 |  |  |
| [Sources: Appendix 6] |  |  |  |  |  |  |

Chart -4.6

## Loan and Advance to Fixed Deposit Ratio



Fiscal Year
The table 4.6 indicates that, in EBL the ratio is in increasing as well as in NBL it is in decreasing trend except in the year 2009/10. EBL has highest ratio of $285.15 \%$ in the fiscal year 2007/08 and the lowest ratio of 209.37\% in the year 2010/11 and on the average of 271.17\%. Similarly, on the other hand, the highest ratio of NBL is $254.19 \%$ in the fiscal year 2007/08 and the lowest ratio is $223.66 \%$ in 2009/10 and on the average of $256.46 \%$.

The average ratio of EBL is higher than that of NBL i.e. 271.17\%>256.46\%. In this analysis, it is concluded that EBL has proper utilization of fixed assets than NBL because EBL has higher average ratio than NBL.
4.1.2.3 Loan and Advance to Saving Deposit Ratio:-This ratio assesses how many times the fund is used to loan and advance against saving deposits. It is computed as:-

Loan and Advances to saving Deposit $=\frac{\text { Loan and Advance }}{\text { Saving Deposit }}$
Table -4.7

## Loan and Advance to Saving Deposit Ratio (in Percentage)

(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal | Loan and <br> Year | Saving <br> Advance | Ratio | Loan and <br> Advance | Saving <br> Deposit | Ratio |


| $2006 / 07$ | 13021.30 | 10187.40 | 127.82 | 14059.20 | 9018.00 | 155.90 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 08$ | 21514.60 | 12160.00 | 176.93 | 18814.30 | 11883.90 | 158.32 |
| $2008 / 09$ | 27816.60 | 14620.40 | 190.26 | 24366.20 | 14782.30 | 164.83 |
| $2009 / 10$ | 32902.80 | 13783.60 | 238.71 | 28129.70 | 13360.00 | 210.55 |
| $2010 / 11$ | 38765.60 | 14288.50 | 271.31 | 31534.70 | 13039.10 | 241.85 |
| Mean |  |  | $\mathbf{2 0 1 . 0 1}$ | Mean |  | $\mathbf{1 8 6 . 2 9}$ |
| S.D |  |  | $\mathbf{5 5 . 7 1}$ | S.D |  | $\mathbf{3 8 . 2 2}$ |
| C.V (\%) |  |  | $\mathbf{2 7 . 5 2}$ | C.V (\%) |  | $\mathbf{2 0 . 5 1}$ |

[Sources: Appendix 7]

## Chart-4.7

## Loan and Advance to saving Deposit Ratio



## Fiscal Year

The table 4.7 shows that, both banks ratio are in fluctuating trend. The highest ratio of NBL is $271.3 \%$ in the fiscal year $2010 / 11$ and the lowest ratio is $127.82 \%$ in the fiscal year 2006/07. Similarly, the highest ratio of EBL is $241.85 \%$ in the last fiscal year 2010/2011 and lowest ratio is $155.90 \%$ in the fiscal year 2006/07. The average ratio of NBL is higher than that of EBL i.e. $201.01 \%>186.29 \%$. Over fluctuation ratio of all fiscal year, saving deposit is not efficiently utilized to invest in loan and advance due to the over function.

The C.V. of NBL is higher than that of EBL which is $27.72 \%$ > $20.51 \%$. it shows that the ratios are fluctuating more in NBL than EBL. There is higher variability in ratios of NBL than EBL.
4.1.2.4 Investment to Total Deposit Ratio: - This ratio measures the capacity utilization. It shows the percentage amount of total deposit on investment. It is computed by:-

Investment to Total Deposit $=\frac{\text { Total Investment }}{\text { Total Deposit }}$

Table-4.8

## Investment to Total Deposit Ratio (in Percentage)

(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Investment | Total <br> Deposit | Ratio | Investment | Total <br> Deposit | Ratio |
| $2006 / 07$ | 5359.20 | 23342.40 | 22.96 | 4704.60 | 19097.70 | 24.63 |
| $2007 / 08$ | 4889.60 | 31915.00 | 15.32 | 4906.50 | 23976.30 | 20.46 |
| $2008 / 09$ | 3978.70 | 37348.30 | 10.65 | 5146.00 | 33322.90 | 15.44 |
| $2009 / 10$ | 8128.30 | 46334.80 | 17.54 | 4354.40 | 36932.30 | 11.79 |
| $2010 / 11$ | 8920.30 | 49691.40 | 17.95 | 7145.00 | 41127.90 | 17.37 |
| Mean |  |  | $\mathbf{1 6 . 8 9}$ | Mean |  | $\mathbf{1 7 . 9 4}$ |
| S.D |  |  | $\mathbf{4 . 4 6}$ | S.D |  | 4.89 |
| C.V (\%) |  |  | $\mathbf{2 6 . 4 0}$ | C.V (\%) |  | $\mathbf{2 7 . 2 6}$ |

[Sources: Appendix 8]
Chart -4.8
Investment to Total Deposit Ratio


## Fiscal Year

This ratio is employed to which banks mobilized the total deposits on investment properly. This table has shows that, both in NBL and EBL the ratios are in fluctuating trend. The policy of investment to total deposit ratio is better financing policy of a bank. In NBL the highest ratio is $22.96 \%$ in the fiscal year 2006/07 and the lowest ratio is $10.67 \%$ in the fiscal year 2008/09. Similarly, then highest ratio of EBL is $24.63 \%$ in the first fiscal year and the lowest ratio of EBL is $11.79 \%$ in fiscal year 2009/10.

The average ratio of EBL is higher than that of NBL i.e. $17.94 \%>16.89 \%$. The C.V. of EBL is higher than that of NBL which is $27.26 \%>26.40 \%$. It shows that greater fluctuation in ratios
of EBL than NBL. From the above analysis it is employed that NBL is utilizing its deposits more on investment. It has better position in utilizing its proportion of deposits.
4.1.3 Leverage Ratio or Capital Structure Ratio: - Leverage ratio examines the proportionate relationship between debt and equity. Financial leverage or capital structure ratio are calculated to examine the long-term financial position and strength and weakness of are calculated to examine the long- term financial position and strength and weakness of the banks. The following ratios are calculated under the leverage ratios:-
4.1.3.1 Total Debt to Shareholder's Equity Ratio:-This ratio describes the lenders contribution for each rupee of the owner's contribution. It is computed by dividing the total debt shareholder equity. It is stated as:-

Debt- Equity Ratio $=\frac{\text { Total Debt }}{\text { Shareholder equity }}$
Where, total debts include the borrowing, deposits and current liabilities. And shareholder's fund includes share capital, reserve fund and profit and loss account. Total debt to share holder fund of NBL and EBL is shows in Table-4.9

Table -4.9
Total Debt to share Holder's Fund Ratio (in Times)
(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Total Debt | S.H.E. | Ratio | Total Debt | S.H.E. | Ratio |
| $2006 / 07$ | 27100.00 | 1874.80 | 14.45 | 20823.30 | 963.60 | 21.61 |
| $2007 / 08$ | 35671.30 | 2057.00 | 17.34 | 25817.20 | 1601.50 | 16.12 |
| $2008 / 09$ | 41880.60 | 2436.20 | 17.19 | 35297.20 | 2066.50 | 17.08 |
| $2009 / 10$ | 49681.70 | 3129.40 | 15.88 | 39004.50 | 2203.60 | 17.70 |
| $2010 / 11$ | 56187.20 | 3835.70 | 14.65 | 43194.70 | 2759.10 | 15.66 |
| Mean |  |  | $\mathbf{1 5 . 9 0}$ | Mean |  | $\mathbf{1 7 . 6 3}$ |
| S.D |  |  | $\mathbf{1 . 3 6}$ | S.D |  | $\mathbf{2 . 3 6}$ |
| C.V (\%) |  |  | $\mathbf{8 . 5 5}$ | C.V (\%) |  | $\mathbf{1 3 . 3 9}$ |

[Sources: Appendix 9]

## Chart-4.9

## Total Debt to Shareholder's Fund Ratio



According to the above table, total debt to shareholder's equity ratio of NBL is decreasing trend which has ranged from $14.45 \%$ (2006/07) to17.34\%(2007/08) and average ratio is $15.90 \%$. Similarly, of EBL is $15.66 \%$ (2010/11) to $21.61 \%$ (2006/07) and average ratio of 17.63\%.

On the basis of C.V., EBL is higher than NBL. The variability of NBL is lower than EBL. This explains that NBL's ratio is less fluctuating over the study period, than EBL. With comparing between EBL and NBL, EBL has higher average ratio than NBL. High total debt to shareholders equity ratio refers that the use of debts by the banks helps to enhance the rate of return of shareholders fund.
4.1.3.2 Total Debt to Total Assets Ratio: - This ratio indicates the extent of debt financing on the total asset and measures the financial security to the creditors. It is calculated by dividing the total debt by total assets. Total assets include the total assets from the balance sheet items.

Table-4.10
Total Debt to Total Assets (in Percentage)
(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Total Debt | Total <br> Assets | Ratio | Total Debt | Total <br> Assets | Ratio |
| $2006 / 07$ | 27100.00 | 29660.40 | 91.37 | 20823.30 | 23335.30 | 89.24 |
| $2007 / 08$ | 35671.30 | 38478.60 | 92.70 | 25817.20 | 28565.90 | 90.38 |
| $2008 / 09$ | 41880.60 | 45941.60 | 91.16 | 35297.20 | 38000.30 | 92.89 |
| $2009 / 10$ | 49681.70 | 54609.80 | 90.98 | 39004.50 | 42053.00 | 92.75 |
| $2010 / 11$ | 56187.20 | 61292.60 | 91.67 | 43194.70 | 46895.60 | 92.11 |


| Mean |  |  | 91.58 | Mean |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.D |  |  | 0.68 | S.D |  | 1.60 |
| C.V (\%) |  |  | 0.74 | C.V (\%) |  | 1.75 |

[Sources: Appendix 10]
Chart-4.10

## Total Debt to Total Assets Ratio



Fiscal Year

From the above table, the ratio of NBL is in decreasing trend, the ratio ranges from 90.98\% (2009/10) to $92.70 \%$ (2007/08) to and average ratio is $91.58 \%$. Similarly, EBL is $89.24 \%$ (2006/07) to $92.89 \%(2008 / 09)$ and the average ratio of $91.47 \%$.

The average ratio of NBL is higher than that of EBL i.e. 91.58\%>91.47\%. From above analysis debt to equity ratio of NBL is lower than EBL, which implies that NBL has riskier debt financing position as, compared to EBL over the study period.

### 4.1.4 Profitability Ratios

Profitability ratio is measurement of efficiency and the search for it provides the degree of success in achieving profit. Any firm should earn satisfactory profit to survive and run over a long period in the competitive environment. Profitability ratio can be determined on the basis of either sales or investment. Though this ratio, the investors decide whether to invest in a particular business or no. the following profitability ratios are computed to analyze the profitability of two JVB, s.
4.1.4.1 Net Profit to Total Assets Ratio: - This ratio measures the bank's ability to earn a rate of return on the total assets invested. It measures the return on assets. The ratio is calculated by dividing the net profit after tax by total assets. A higher ratio usually indicates efficiency of a bank.

Table -4.11
Net Profit to Total Assets Ratio (in Percentage)
(Rs. in Million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Net Profit | Total <br> Assets | Ratio | Net Profit | Total Assets | Ratio |
| $2006 / 07$ | 673.96 | 29660.40 | 2.27 | 296.40 | 23335.30 | 1.27 |
| $2007 / 08$ | 746.46 | 38478.60 | 1.94 | 451.20 | 28565.90 | 1.58 |
| $2008 / 09$ | 1031.05 | 45941.60 | 2.24 | 638.60 | 38000.30 | 1.68 |
| $2009 / 10$ | 1139.10 | 54609.80 | 2.09 | 831.80 | 42053.00 | 1.98 |
| $2010 / 11$ | 1337.74 | 61292.60 | 2.18 | 931.30 | 46895.60 | 1.99 |
| Mean |  |  | $\mathbf{2 . 1 4}$ | Mean |  | $\mathbf{1 . 7 0}$ |
| S.D |  |  | $\mathbf{0 . 1 3}$ | S.D |  | $\mathbf{0 . 2 9}$ |
| C.V (\%) |  |  | $\mathbf{6 . 0 7}$ | C.V (\%) |  | $\mathbf{1 7 . 0 6}$ |

[Sources: Appendix 11]

## Chart -4.11

## Net Profit to Total Assets Ratio



## Fiscal Year

This table shows the ratio of NP to TA. In NBL, the ratios range from $1.94 \%$ (2007/08) to $2.27 \%$ (2006/07) and the average is of $2.14 \%$. Similarly, in case of EBL, the ratio range from $1.27 \%(2006 / 07)$ to $1.99 \%(2010 / 11)$ and the average ratio of $1.70 \%$.

On the basis of average ratio, net profit to total assets ratio of EBL has appeared better position than NBL. Comparatively, has been able to earn more profit by utilizing their resources. The C.V. of EBL is very higher than NBL. Thus the ratios of EBL are more fluctuating than NBL.
4.1.4.2 Net Profit to Total Deposit Ratio: - This ratio is used for measuring the internal rate of return from deposits. This ratio reveals how efficiently banks mobilizing its deposits in generating profit. Higher ratio indicates the return from investment on loans and advances are better utilized. It is computed by dividing the net profit by total deposits. The ratio is shows below:-

Table-4.12
Net Profit to Total Deposit Ratio (in Percentage)
(Rs in million)

|  | Nabil BL |  |  |  | EBL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Net Profit | Total <br> Deposit | Ratio | Net Profit | Total <br> Deposit | Ratio |
| $2006 / 07$ | 673.96 | 23342.40 | 2.89 | 296.40 | 19097.70 | 1.55 |
| $2007 / 08$ | 746.46 | 31915.00 | 2.34 | 451.20 | 23976.30 | 1.88 |
| $2008 / 09$ | 1031.05 | 37348.30 | 2.76 | 638.60 | 33322.90 | 1.92 |
| $2009 / 10$ | 1139.10 | 46334.80 | 2.46 | 831.80 | 36932.30 | 2.25 |
| $2010 / 11$ | 1337.74 | 49691.40 | 2.69 | 931.30 | 41127.90 | 2.26 |
| Mean |  |  | $\mathbf{2 . 6 3}$ | Mean |  | $\mathbf{1 . 9 7}$ |
| S.D |  |  | $\mathbf{0 . 2 2}$ | S.D |  | $\mathbf{0 . 2 9}$ |
| C.V (\%) |  |  | $\mathbf{8 . 3 6}$ | C.V (\%) |  | $\mathbf{1 4 . 7 2}$ |

[Sources: Appendix 12]
Chart -4.12
Net Profit to Total Deposit Ratio


## Fiscal Year

In NBL, the ratios ranged from $2.34 \%$ (2007/08) to $2.89 \%$ (2006/07) and average ratio is $2.63 \%$. Where of EBL, the ratios are in decreasing trend except in the year 2010/11. The ratios range from $1.55 \%(2006 / 07)$ to $2.26 \%(2010 / 11)$ and the average ratio of $1.97 \%$. It
shows that NBL is earning more profit than EBL. So, by mobilized deposits efficiently and earned more profit by using total deposits in investment sectors. The C.V. of EBL is higher than that of NBL. Which means that is a greater fluctuation in the ratios of NBL.
4.1.4.3 Return to Net Worth (shareholders Equity):- It is the most vital tool to examine whether the concern has earned a satisfactory return to its owners or not. Here, return means net profit after tax. This ratio is computed by dividing net profit after tax by shareholders equity. The ratio is shown below on table 4.13.

Table -4.13
Return on net worth ratio (in Percentage)
(Rs in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Net Profit | Net Worth | Ratio | Net Profit | Net Worth | Ratio |
| $2006 / 07$ | 673.96 | 1874.80 | 35.95 | 296.40 | 963.60 | 30.76 |
| $2007 / 08$ | 746.46 | 2057.00 | 36.29 | 451.20 | 1601.50 | 28.17 |
| $2008 / 09$ | 1031.05 | 2436.20 | 42.32 | 638.60 | 2066.50 | 30.90 |
| $2009 / 10$ | 1139.10 | 3129.40 | 36.40 | 831.80 | 2203.60 | 37.75 |
| $2010 / 11$ | 1337.74 | 3835.70 | 34.88 | 931.30 | 2759.10 | 33.75 |
| Mean |  |  | $\mathbf{3 7 . 1 7}$ | Mean |  | $\mathbf{3 2 . 2 7}$ |
| S.D |  |  | $\mathbf{2 . 9 4}$ | S.D |  | $\mathbf{3 . 6 5}$ |
| C.V (\%) |  |  | $\mathbf{7 . 9 1}$ | C.V (\%) |  | $\mathbf{1 1 . 3 1}$ |

[Sources: Appendix 13]

## Chart -4.13

Return on Net worth Ratio


Fiscal Year

The above table shows the ratio of net worth. The highest ratio of NBL is in Fiscal year (2008/09) of $42.32 \%$ and the lowest is of $34.88 \%$ in the year 2010/11 and the average ratio of $37.17 \%$. Similarly, the average ratio of EBL is $32.27 \%$ and the data range from $37.75 \%$ (2009/10) to 28.17 \%( 2007/08). NBL return on net worth average is very high than EBL, which indicates that NBL is having high profit on net worth. The C.V. of EBL is higher than NBL which indicates that the EBL ratios are more in fluctuating trend than NBL.
4.1.4.4 Net Profit Margin Ratio: - Net profit margin ratio is computed by dividing profit after tax by gross earning. Gross earning includes the interest income, commission and discount, exchange gain, no operating income and other incomes. This ratio indicates the firm's capacity to with stand adverse economic condition. Net profit margin ratio of NBL and EBL is presented below.

Table-4.14
Net Profit Margin Ratio
(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Net Profit | Grossing <br> Earning | Ratio | Net Profit | Grossing <br> Earning | Ratio |
| $2006 / 07$ | 673.96 | 1480.16 | 45.53 | 296.40 | 841.33 | 35.23 |
| $2007 / 08$ | 746.46 | 1670.42 | 44.69 | 451.20 | 1209.90 | 37.29 |
| $2008 / 09$ | 1031.05 | 2220.98 | 46.42 | 638.60 | 1173.94 | 54.40 |
| 2009/10 | 1139.10 | 2764.08 | 41.21 | 831.80 | 1381.96 | 60.19 |
| 2010/11 | 1337.74 | 3046.13 | 43.92 | 931.30 | 1447.90 | 64.32 |
| Mean |  |  | $\mathbf{4 4 . 3 5}$ | Mean |  | $\mathbf{5 0 . 2 9}$ |
| S.D |  |  | $\mathbf{1 . 9 9}$ | S.D |  | $\mathbf{1 3 . 3 0}$ |
| C.V (\%) |  |  | $\mathbf{4 . 4 9}$ | C.V (\%) |  | $\mathbf{2 6 . 4 5}$ |

[Sources: Appendix 14]

Chart-4.14

## Net Profit Margin Ratio



The above tale shows the net profit margin ratio. On the basis of average ratio, EBL has a good result because, it has higher average ratio (i.e.50.29\%>44.35\%) and on the basis of yearly ratios, EBL are incurring higher profit than NBL. The average ratio of EBL is slightly higher than the NBL.

On the basis of C.V., EBL has C.V. (26.45\%) than NBL. Lower C.V. indicates lower risk and high return and the yearly ratio are less fluctuated.
4.1.4.5 Return on Investment (ROI):- Return on Investment measures firms return from investment. The conventional approach of calculating return on investment is to divide net profit by investment. Investment includes investment on Government of Nepal securities, on share, on debt and other investment. ROI of NBL and EBL is presented below:-

Table-4.15
Return on Investment (in Percentage)
(Rs. in million)

|  | Nabil BL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Net Profit | Investment | Ratio | Net Profit | Investment | Ratio |
| $2006 / 07$ | 673.96 | 5359.20 | 12.58 | 296.40 | 4704.60 | 6.30 |
| $2007 / 08$ | 746.46 | 4889.60 | 15.27 | 451.20 | 4906.50 | 9.20 |
| $2008 / 09$ | 1031.05 | 3978.70 | 25.91 | 638.60 | 5146.00 | 12.41 |
| $2009 / 10$ | 1139.10 | 8128.30 | 14.01 | 831.80 | 4354.40 | 19.10 |
| $2010 / 11$ | 1337.74 | 8920.30 | 15.00 | 931.30 | 7145.00 | 13.03 |
| Mean |  |  | $\mathbf{1 6 . 5 5}$ | Mean |  | $\mathbf{1 2 . 0 0}$ |
| S.D |  |  | $\mathbf{5 . 3 3}$ | S.D |  | $\mathbf{4 . 7 8}$ |
| C.V (\%) |  |  | $\mathbf{3 2 . 2 0}$ | C.V (\%) |  | $\mathbf{3 9 . 8 4}$ |

[Sources: Appendix 15]

## Chart-4.15

## Return on Investment



Fiscal Year
The table shows the return on investment of the respective banks. In NBL ratio ranges from $12.58 \%(2006 / 07)$ to $25.91 \%$ (2008/09) and the average ratio of $6.55 \%$. Similarly, in the case of EBL, the ratios range from $6.30 \%$ 9006/07) to $19.10 \%(2009 / 10)$ and average ratio of $12 \%$. Since, the average ratio of NBL is higher; NBL has good return on investment.

Similarly, the C.V. of EBL is higher than C.V. of NBL which is $39.84 \%>32.20 \%$. It reflects that the ratios of EBL fluctuate more than that of NBL.

### 4.2 Statistical Tools

### 4.2.1 Hypothesis Test (One-Way ANOVA test) for liquidity position Null hypothesis:

$\mathrm{H}_{0}: \mu_{1}=\mu_{2}$ i.e. there is no significance difference in liquidity position of NBL and EBL.

## Alternative hypothesis:

$H_{1}: \mu_{1} \# \mu_{2}$ i.e. there is significance difference in liquidity position of NBL and EBL.
Compute the test statistic, F- test,
$F=\frac{M S C}{M S E}$

## Calculation of required items:-

Let $\mathrm{X}_{1}$ and $\mathrm{X}_{2}$ denote the current ratio of NBL and EBL respectively and calculation items of
$\mathrm{X}_{1}$ and $\mathrm{X}_{2}$ are as follows:-

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 0.47 | 0.56 | 0.2209 | 0.3136 |
| $2007 / 08$ | 0.47 | 0.48 | 0.2209 | 0.2304 |
| $2008 / 09$ | 0.42 | 0.44 | 0.1764 | 0.1936 |
| $2009 / 10$ | 0.38 | 0.45 | 0.1444 | 0.2025 |
| $2010 / 11$ | 0.44 | 0.51 | 0.1936 | 0.2601 |
| Total | $\mathbf{2 . 1 8}$ | $\mathbf{2 . 4 4}$ | $\mathbf{0 . 9 5 6 2}$ | $\mathbf{1 . 2 0 0 2}$ |

Now,
Grand total ${ }^{\prime} \mathrm{T}^{\prime}=\sum \mathrm{X}_{1}+\sum \mathrm{X}_{2}=2.18+2.44=4.62$
Total no. of observation (N) $=\mathrm{n}_{1}+\mathrm{n}_{2}=5+5=10$
Correlation factor (C.F) $=\frac{\mathrm{T}^{2}}{\mathrm{~N}}=\frac{(4.62)^{2}}{10}=2.1344$

## Sum of squares due to column (SSC)

$$
\begin{aligned}
\text { SSC } & =\frac{\left(\sum \mathrm{X}_{1}\right)^{2}}{\mathrm{n}_{1}}+\frac{\left(\sum \mathrm{X}_{2}\right)^{2}}{\mathrm{n}_{2}}-\text { C.F. } \\
& =\frac{(2.18)^{2}}{5}+\frac{(2.44)^{2}}{5}-2.1344 \\
& =0.95048+1.19072-2.1344 \\
& =0.0068
\end{aligned}
$$

## Sum of squares due to total (SST):-

$$
\begin{aligned}
\text { SST } & =\sum \mathrm{x}_{1}{ }^{2}+\sum \mathrm{x}_{2}{ }^{2}-\mathrm{C} . \mathrm{F} . \\
\text { SST } & =0.9562+1.2002-2.1344 \\
& =0.022
\end{aligned}
$$

## Sum of Square due to error (SSE):-

$$
\begin{aligned}
\text { SSE }= & \text { SST }- \text { SSC } \\
& =0.022-0.0068 \\
& =0.0152
\end{aligned}
$$

To compute F-Test, preparation of ANOVA Table

| Source of Variations | Sum of Squares | Degree of Freedom | Mean Sum of Square (MMS) | F-Ratio |
| :---: | :---: | :---: | :---: | :---: |
| Between bank or Columns | $\begin{aligned} & \text { SSC } \\ & =0.0068 \end{aligned}$ | $\begin{aligned} & \mathrm{C}-1 \\ & =2-1=1 \end{aligned}$ | $\begin{aligned} & \text { MSC=SSC/C-1 } \\ & =0.0068 / 1=0.0068 \end{aligned}$ |  |
| Due to error within Banks | $\begin{aligned} & \text { SSE } \\ & =0.0152 \end{aligned}$ | $\begin{aligned} & \mathrm{N}-\mathrm{C}= \\ & =10-2=8 \end{aligned}$ | $\begin{aligned} & \text { MSE=SSE/N-C } \\ & =0.0152 / 8 \\ & =0.0019 \end{aligned}$ | $\begin{aligned} & =0.0068 / 0.0019 \\ & =3.58 \end{aligned}$ |
| Total | SST $=0.022$ | $\mathrm{N}-1=9$ |  |  |

## Critical Value for D.F. $(1,8)$ at $5 \%$ level of significance is

Cal $F=3.58$

Tabulated F0.05, $(1,8)=5.32$

## Decision,

Calculated value of $F$ is lower than tabulated value of $F$ at $5 \%$ significance. So, $H_{1}$ is rejected, that is there is significance difference between liquidity position or current ratio of NBL and EBL.

### 4.2.2 Hypothesis test for Activity Turnover Position

## Formulation of $\mathbf{H}_{\mathbf{0}}$ and $\mathbf{H}_{\mathbf{1}}$

## Null hypothesis:

$H_{0}: \mu_{1}=\mu_{2}$ i.e. there is no significance difference between loan and advance to total deposit ratio of NBL and EBL.

## Alternative hypothesis:

$\mathrm{H}_{1}: \mu_{1} \# \mu_{2}$ i.e. there is significance difference between loan and advance to total deposit ratio of NBL and EBL.

Compute the test statistic, F- test,
$F=\frac{M S C}{M S E}$

## Calculation of required items:-

Let $X_{1}$ and $X_{2}$ denote the loan and advance to total deposit ratio of NBL and EBL respectively and calculation items of $\mathrm{X}_{1}$ and $\mathrm{X}_{2}$ are as follows:-

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 55.78 | 73.62 | 3111.41 | 5419.90 |
| $2007 / 08$ | 67.41 | 78.47 | 4544.11 | 6157.54 |
| $2008 / 09$ | 74.48 | 73.12 | 5547.27 | 5346.53 |
| $2009 / 10$ | 71.01 | 76.17 | 5042.42 | 5801.87 |
| $2010 / 11$ | 78.01 | 76.67 | 6085.56 | 5878.29 |
| Total | $\mathbf{3 4 6 . 6 9}$ | $\mathbf{3 7 8 . 0 5}$ | $\mathbf{2 4 3 3 0 . 7 7}$ | $\mathbf{2 8 6 0 4 . 1 3}$ |

Now,
Grand total ' $\mathrm{T}^{\prime}=\sum \mathrm{X}_{1}+\sum \mathrm{X}_{2}=346.69+378.05=724.74$
Total no. of observation $(\mathrm{N})=\mathrm{n}_{1}+\mathrm{n}_{2}=5+5=10$
Correlation factor (C.F) $=\frac{\mathrm{T}^{2}}{\mathrm{~N}}=\frac{(724.74)^{2}}{10}=52524.81$

## Sum of squares due to column (SSC)

$$
\begin{aligned}
\text { SSC }= & \frac{\left(\sum \mathrm{X}_{1}\right)^{2}}{\mathrm{n}_{1}}+\frac{\left(\sum \mathrm{X}_{2}\right)^{2}}{\mathrm{n}_{2}}-\text { C.F. } \\
& =\frac{(346.69)^{2}}{5}+\frac{(378.05)^{2}}{5}-52524.81 \\
& =24038.73+28584.35-52524.81 \\
& =98.28
\end{aligned}
$$

Sum of squares due to total (SST):-

$$
\begin{aligned}
\text { SST } & =\sum \mathrm{x}_{1}{ }^{2}+\sum \mathrm{x}_{2}{ }^{2}-\text { C. F. } \\
= & 24330.77+28604.14-52524.81 \\
& =410.10
\end{aligned}
$$

Sum of Square due to error (SSE):-

```
SSE= SST -SSC
= 410.10-98.28
=311.82
```

To compute F-Test, preparation of ANOVA Table

| Source of <br> Variations | Sum of <br> Squares | Degree of <br> Freedom | Mean Sum of <br> Square (MMS) | F-Ratio |
| :--- | :--- | :--- | :--- | :--- |
| Between <br> bank or <br> Columns | SSC $=98.28$ | $\mathrm{C}-1$ | $\mathrm{MSC}=\mathrm{SSC} / \mathrm{C}-1$ |  |
| Due to <br> error <br> within <br> Banks | SSE =311.82 | $\mathrm{N}-\mathrm{C}$ | $=98.28 / 1=98.28$ | F $=$ MSC/ MSE |

Critical Value for D.F. $(1,8)$ at $5 \%$ level of significance is
Cal F $=2.52$
Tabulated F0.05, $(1,8)=5.32$

## Decision,

Calculated value of $F$ is lower than tabulated value of $F$ at $5 \%$ significance. $\mathrm{So}, \mathrm{H}_{1}$ is rejected, that is, there is significance difference between activity turnover ratio or loan and advance to total deposit ratio of NBL and EBL.

### 4.2.3 Hypothesis Test for Investment by Total Deposit Ratio

Formulation of $\mathrm{H}_{\mathbf{0}}$ and $\mathrm{H}_{\mathbf{1}}$

## Null hypothesis:

$\mathrm{H}_{0}: \mu_{1}=\mu_{2}$ i.e. there is no significance difference between investment to total deposit ratio of NBL and EBL.

## Alternative hypothesis:

$\mathrm{H}_{1}: \mu_{1} \# \mu_{2}$ i.e. there is significance difference between investment to total deposit ratio of NBL and EBL.

Compute the test statistic, F- test,
$\mathrm{F}=\frac{\mathrm{MSC}}{\mathrm{MSE}}$

## Calculation of required items:-

Let $\mathrm{X}_{1}$ and $\mathrm{X}_{2}$ denotes the investment to total deposit ratio of NBL and EBL respectively and calculation items of Let $X_{1}$ and $X_{2}$ are as follows:-

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 22.96 | 24.63 | 527.16 | 606.64 |
| $2007 / 08$ | 15.32 | 20.46 | 234.70 | 418.61 |
| $2008 / 09$ | 10.65 | 15.44 | 113.42 | 238.39 |
| $2009 / 10$ | 17.54 | 11.79 | 307.65 | 139.00 |
| $2010 / 11$ | 17.95 | 17.37 | 322.20 | 301.72 |
| Total | $\mathbf{8 4 . 4 2}$ | $\mathbf{8 9 . 6 9}$ | $\mathbf{1 5 0 5 . 1 4}$ | $\mathbf{1 7 0 4 . 3 6}$ |

Now,
Grand total ' $\mathrm{T}^{\prime}=\sum \mathrm{X}_{1}+\sum \mathrm{X}_{2}=84.42+89.69=174.11$
Total no. of observation (N) $=\mathrm{n}_{1}+\mathrm{n}_{2}=5+5=10$
Correlation factor (C.F) $=\frac{\mathrm{T}^{2}}{\mathrm{~N}}=\frac{(174.11)^{2}}{10}=3031.42$

## Sum of squares due to column (SSC)

$$
\begin{aligned}
\mathrm{SSC}= & \frac{\left(\sum \mathrm{X}_{1}\right)^{2}}{\mathrm{n}_{1}}+\frac{\left(\sum \mathrm{X}_{2}\right)^{2}}{\mathrm{n}_{2}}-\text { C.F. } \\
& =\frac{(84.42)^{2}}{5}+\frac{(89.69)^{2}}{5}-3031.42 \\
& =1425.34+1608.85-3031.42 \\
& =2.77
\end{aligned}
$$

Sum of Squares due to total (SST):-

$$
\begin{aligned}
& \text { SST }=\sum \mathrm{x}_{1}{ }^{2}+\sum \mathrm{x}_{2}{ }^{2}-\text { C.F. } \\
& \quad=1505.14+1704.36-3031.42 \\
& \quad=178.08
\end{aligned}
$$

## Sum of Square due to error (SSE):-

$$
\begin{aligned}
& \text { SSE }=\text { SST -SSC } \\
& =178.08-2.77 \\
& =175.31
\end{aligned}
$$

To compute F-Test, preparation of ANOVA Table

| Source of <br> Variations | Sum of <br> Squares | Degree of <br> Freedom | Mean Sum of <br> Square (MMS) | F-Ratio |
| :--- | :--- | :--- | :--- | :--- |
| Between or <br> bank <br> Columns | $\mathrm{SSC}=2.77$ | $\mathrm{C}-1$ | $\mathrm{MSC}=\mathrm{SSC} / \mathrm{C}-1$ |  |
| Due to <br> error <br> within <br> Banks | $\mathrm{SSE}=175.31$ | $\mathrm{~N}-\mathrm{C}$ | $\mathrm{MSE}=\mathrm{SSE} / \mathrm{N}-\mathrm{C}$ | $=2.77 / 1=2.77$ |
| Total |  | $=10-2=8$ | $=175.31 / 8=21.91$ | $=0.13$ |

Critical Value for D.F. $(1,8)$ at $5 \%$ level of significance is
Cal $F=0.13$
Tabulated F0.05, $(1,8)=5.32$

## Decision,

Calculated value of $F$ is lower than tabulated value of $F$ at $5 \%$ significance. So, $H_{1}$ is rejected, that is, there is significance difference in the investment to total deposit ratio of NBL and EBL.

### 4.2.4 Hypothesis Test for Leverage Ratio

## Formulation of $\mathbf{H}_{\mathbf{0}}$ and $\mathbf{H}_{\mathbf{1}}$

## Null hypothesis:

$H_{0}: \mu_{1}=\mu_{2}$ i.e. there is no significance difference in leverage ratio or debt to equity ratio of NBL and EBL.

## Alternative hypothesis:

$H_{1}: \mu_{1} \# \mu_{2}$ i.e. there is significance difference in leverage ratio of NBL and EBL.

Compute the test statistic, F-test,
$F=\frac{M S C}{M S E}$

## Calculation of required items:-

Let $X_{1}$ and $X_{2}$ denotes the leverage ratio (debt to equity ratio) of NBL and EBL respectively and calculation items of $X_{1}$ and $X_{2}$ are as follows:-

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 14.45 | 21.61 | 208.80 | 466.99 |
| $2007 / 08$ | 17.34 | 16.12 | 300.68 | 259.85 |
| $2008 / 09$ | 17.19 | 17.08 | 295.50 | 291.73 |
| $2009 / 10$ | 15.88 | 17.70 | 252.17 | 313.29 |
| $2010 / 11$ | 14.65 | 15.66 | 214.62 | 245.24 |
| Total | $\mathbf{7 9 . 5 1}$ | $\mathbf{8 8 . 7 0}$ | $\mathbf{1 2 7 1 . 7 7}$ | $\mathbf{1 5 7 7 . 1 0}$ |

Now,

$$
\text { Grand total }{ }^{\prime} T^{\prime}=\sum X_{1}+\sum X_{2}=79.51+88.17=167.68
$$

Total no. of observation $(N)=n_{1}+n_{2}=5+5=10$
Correlation factor (C.F) $=\frac{\mathrm{T}^{2}}{\mathrm{~N}}=\frac{(167.68)^{2}}{10}=2811.65$

## Sum of squares due to column (SSC)

$\mathrm{SSC}=\frac{\left(\sum \mathrm{X}_{1}\right)^{2}}{\mathrm{n}_{1}}+\frac{\left(\sum \mathrm{X}_{2}\right)^{2}}{\mathrm{n}_{2}}-$ C.F.

$$
\begin{aligned}
& =\frac{(79.51)^{2}}{5}+\frac{(88.17)^{2}}{5}-2811.65 \\
& =1264.36+1554.78-2811.65 \\
& =7.49
\end{aligned}
$$

Sum of squares due to total (SST):-

$$
\begin{aligned}
& \text { SST }=\sum \mathrm{x}_{1}^{2}+\sum \mathrm{x}_{2}^{2}-\text { C.F. } \\
& \quad=1271.77+1577.10-2811.65 \\
& \quad=37.22
\end{aligned}
$$

## Sum of Square due to error (SSE):-

$$
\begin{aligned}
& \text { SSE }=\text { SST }- \text { SSC } \\
& =37.22-7.49 \\
& =29.73
\end{aligned}
$$

To compute F-Test, preparation of ANOVA Table

| Source of <br> Variations | Sum of Squares | Degree of <br> Freedom | Mean Sum of <br> Square (MMS) | F-Ratio |
| :--- | :--- | :--- | :--- | :--- |
| Between <br> bank or <br> Columns | SSC $=7.49$ | $\mathrm{C}-1$ | $\mathrm{MSC}=\mathrm{SSC} / \mathrm{C}-1$ |  |
| Due to <br> error <br> within <br> Banks | SSE $=29.73$ | $\mathrm{~N}-\mathrm{C}$ | $\mathrm{MSE}=\mathrm{SSE} / \mathrm{N}-\mathrm{C}$ |  |
| $=7.49 / 1=7.49$ | $=7.49 / 3.72$ |  |  |  |
| Total |  | $=29.73 / 8=3.72$ | $=2.01$ |  |

Critical Value for D.F. $(1,8)$ at $5 \%$ level of significance is
Cal F $=2.01$

Tabulated F0.05, $(1,8)=5.32$

## Decision,

Calculated value of F is lower than tabulated value of F at $5 \%$ significance. So, $\mathrm{H}_{1}$ is rejected, that is, there is significance difference in leverage ratio or debt to equity ratio of NBL and EBL.

### 4.2.5Hypothesis Test for Profitability Ratio

## Formulation of $\mathbf{H}_{\mathbf{0}}$ and $\mathbf{H}_{\mathbf{1}}$

## Null hypothesis:

$\mathrm{H}_{0}: \mu_{1}=\mu_{2}$ i.e. there is no significance difference in profitability ratio or Net Profit Margin ratio of NBL and EBL.

## Alternative hypothesis:

$H_{1}: \mu_{1} \# \mu_{2}$ i.e. there is significance difference in profitability ratio of NBL and EBL.
Compute the test statistic, F-test,
$F=\frac{M S C}{M S E}$

## Calculation of required items:-

Let $\mathrm{X}_{1}$ and $\mathrm{X}_{2}$ denotes the net profit margin of NBL and EBL respectively and calculation items of $X_{1}$ and $X_{2}$ are as follows:-

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 45.53 | 35.23 | 2072.98 | 1241.15 |
| $2007 / 08$ | 44.69 | 37.29 | 1997.20 | 1390.54 |
| $2008 / 09$ | 46.42 | 54.40 | 2154.82 | 2959.36 |
| $2009 / 10$ | 41.21 | 60.19 | 1698.26 | 3622.84 |
| $2010 / 11$ | 43.92 | 64.32 | 1928.97 | 4137.06 |
| Total | $\mathbf{2 2 1 . 7 7}$ | $\mathbf{2 5 1 . 4 3}$ | $\mathbf{9 8 5 2 . 2 2}$ | $\mathbf{1 3 3 5 0 . 9 6}$ |

Now,

$$
\begin{aligned}
& \text { Grand total ' } \mathrm{T}^{\prime}=\sum \mathrm{X}_{1}+\sum \mathrm{X}_{2}=221.77+251.43=473.20 \\
& \text { Total no. of observation }(\mathrm{N})=\mathrm{n}_{1}+\mathrm{n}_{2}=5+5=10
\end{aligned}
$$

Correlation factor (C.F) $=\frac{\mathrm{T}^{2}}{\mathrm{~N}}=\frac{(473.20)^{2}}{10}=22391.82$

## Sum of squares due to column (SSC)

$$
\begin{aligned}
\mathrm{SSC}= & \frac{\left(\sum \mathrm{X}_{1}\right)^{2}}{\mathrm{n}_{1}}+\frac{\left(\sum \mathrm{X}_{2}\right)^{2}}{\mathrm{n}_{2}}-\text { C.F. } \\
& =\frac{(221.77)^{2}}{5}+\frac{(251.43)^{2}}{5}-22391.82 \\
& =9836.38+12643.41-22391.82 \\
& =87.97
\end{aligned}
$$

Sum of squares due to total (SST):-

$$
\begin{aligned}
& \text { SST }=\sum \mathrm{x}_{1}^{2}+\sum \mathrm{x}_{2}^{2}-\mathrm{C} . \mathrm{F} . \\
& =9852.2213350 .96-22391.82 \\
& =811.36
\end{aligned}
$$

Sum of Square due to error (SSE):-

$$
\begin{aligned}
& \text { SSE }=\text { SST }- \text { SSC } \\
& =811.36-87.97 \\
& =729.39
\end{aligned}
$$

To compute F-Test, preparation of ANOVA Table

| Source of <br> Variations | Sum of Squares | Degree of <br> Freedom | Mean Sum of <br> Square (MMS) | F-Ratio |
| :--- | :--- | :--- | :--- | :--- |
| Between <br> bank or <br> Columns | $\mathrm{SSC}=87.97$ | $\mathrm{C}-1$ | $\mathrm{MSC}=\mathrm{SSC} / \mathrm{C}-1$ |  |
| Due to <br> error <br> within <br> Banks | $\mathrm{SSE}=729.39$ | $\mathrm{~N}-\mathrm{C}$ | $\mathrm{MSE}=\mathrm{SSE} / \mathrm{N}-\mathrm{C}$ | $=87.97 / 1=87.97$ |


| Total | SST $=811.36$ | $\mathrm{~N}-1=9$ |  |  |
| :--- | :--- | :--- | :--- | :--- |

Critical Value for D.F. $(1,8)$ at $5 \%$ level of significance is

Cal $F=0.96$

Tabulated F0.05, $(1,8)=5.32$

## Decision,

Calculated value of F is less than tabulated value of F at $5 \%$ significance. So, $\mathrm{H}_{0}$ is accepted, that is, there is significance difference in profitability ratio of NBL and EBL.

### 4.3 Major Findings

## 1) Liquidity Position

> In term of current ratio both banks are below than the normal standard but EBL is slightly better than NBL . The average ratio of EBL is higher than NBL i.e. ( $0.49 \%>0.44 \%$ ).The C.V. of EBL is higher than NBL which indicates that EBL is riskier and there are fluctuations in the ratios of NBL.
$>$ In term of cash and bank balance to deposit ratio (except fixed deposit ratio) the average ratio of EBL is $23.54 \%$, which is higher than NBL of $8.53 \%$. And with comparing to average ratio, EBL is more profitability because the liquidity position of EBL is better than that of NBL.
> In term of cash and bank balance to current deposit ratio, the average ratio of EBL is higher than NBL i.e. $1.37 \%>0.42 \%$ which indicates that a very high ratio indicates the unwise investment decision. This shows that the bank is unable to invest its current deposits in productive or profitable area.
> In term of fixed deposit to total deposit ratio, the average ratio of NBL is lower than EBL. It shows that EBL's liquidity position is better than NBL. The higher proportion of fixed deposits indicates the stronger liquidity position.

## 2) Activity Turnover Ratio

> The loan and advance to total deposit ratio is employed to measure the utilization of their total deposit on loan and advances. The average ratio of NBL is lower than that of EBL ( $69.34 \%<75.61 \%$ ). It shows that EBL has better utilization of deposits other than NBL, where NBL is utilizing in an average of $69.34 \%$ of deposit and EBL is utilizing in an average of only $75.61 \%$ of total deposit over the study period. According to co-efficient of variation, NBL is
more fluctuating than EBL over the study period. The C.V. of NBL is $12.32 \%$ which is higher than EBL which is $2.94 \%$.
$>$ In term of loan and advance to fixed deposit ratio, the average ratio of EBL is higher than that of NBL i.e. $271.17 \%$ > $256.46 \%$. in this analysis, it is concluded that EBL has proper utilization of fixed assets than NBL because EBL has higher average ratio than NBL.
> In term of loan and advance to saving deposit ratio, the average ratio of EBL is lower than that of NBL i.e. 186.29 \%< 201.01\%. Over fluctuation ratio of all fiscal year saving deposit is not efficiently utilized to invest in loan and advances due to the over function. The C.V. of NBL is higher than that of EBL which is $69.18 \%>4.96 \%$. it shows that the ratios are fluctuating more in NBL than EBL. There is higher variability in ratios of NBL than EBL.
> The investment to total deposit ratio measures the capacity utilization. The average ratio of EBL is higher than that of NBL i.e. $17.94 \%>16.89 \%$. The C.V. of NBL is lower than of EBL which is $26.40 \%$ < $33.52 \%$. It shows that greater fluctuation in ratios of EBL than NBL. From the above analysis it is employed that NBL is utilizing its deposits more on investment. It has better position in utilizing its proportion of deposits.

## 3) Leverage ratio or Capital Structure ratio

> The total debt to shareholder's equity ratio describes the lenders contribution for each rupee of the owner's contribution. On the basis of C.V., NBL is lower than EBL. The variability of NBL is lower than EBL. This explains that NBL's ratio is less fluctuating over the study period, than EBL. With comparing between EBL and NBL, EBL has higher average ratio than NBL. High total debt to shareholders equity ratio refers that the use of debts by the banks helps to enhance the rate of return of shareholders fund.
> While comparing total debt to total assets ratio, the average ratio of EBL is higher than that of NBL i.e. $10.05 \%>91.58 \%$. From above analysis, debt to equity ratio of EBL is always higher than NBL, Which implies that EBL has riskier debt financing position as, compared to NBL over the study period.

## 4) Profitability Ratio

Profitability ratio is measurement of efficiency and the search for it provides the degree of success in achieving desired profit.
> Profitability in term of Net Profit to total assets ratio of NBL is found higher than that of EBL. The yearly ratio of both banks is in fluctuating trend. It can
be seen that EBL's net profit to total assets ratio is less than that of NBL i.e. $1.70 \%<2.4 \%$. EBL has managed to earn a steady rate of return on its assets employed in each fiscal year. The average rate of return of EBL is higher than of NBL, which concludes has found better performance by utilizing overall resources.
> Net Profit to Total Deposit ratio of NBL is higher than that of EBL i.e. 2.63\%> $1.97 \%$. Comparatively, it can be said that NBL seems to be more successful in mobilizing its customer's saving in much more productive sectors as its average ratio is very much higher in compare to EBL.

## 5) Statistical Analysis

Test of Hypothesis suggested that the liquidity position between NBL and EBL is significantly different at $5 \%$ level of significance. In the same way, turnover position in respect of loan and advance to total deposit ratio between NBL and EBL is significantly different at $5 \%$ level of significance. Likewise, leverage position in term of debt to equity ratio of NBL and EBL is not significance different. Similarly, profitability position in terms of net profit margin and earning per share of NBL and EBL are not significantly different at $5 \%$ level of significance.

## CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is dedicated to provide conclusions after comparatively analyzing the financial performance of two joint venture banks named NBL and EBL. It also tries to provide some recommendations to the concerned banks from the conclusion derived from the study.

### 5.1 Summary

Banks, which deal with commercial activities, are known as commercial banks. These financial institutes help to integrate every financial activity of the community. The main objective of commercial banks is to play a vital role in the development of good trade.

Commercial banks are mechanisms of mobilizing funds in returnable resources: They offer financial support to all types of business through providing various types of loans and other financial services. Commercial banks aid the economic development of the nation.

Commercial banks pool together the savings of the community and use the funds productively through prudent investments. The commercial act 2031 defines a commercial banks as a bank which deals in exchanging currency, accepting deposits, giving loans an is involved in commercial activities.

The commercial banking in Nepal started from 1937 A.D (Baisakh 1994 B.S ) with the establishment with Nepal Bank Limited, it was established with $51 \%$ ownership of Nepal Government and $49 \%$ of equity participation from private sector.

Having felt the need of development of banking sector and to help the government to formulate monetary policies, Nepal Rastra Bank was set up in $4^{\text {th }}$ Baisakh, 2013 B.S. since then, it has been functioning as the government bank and has contributed to the growth of financial sector. Through Nepal Rastra Bank has at present, adopted a deregulatory approach, it requires continuous modification in view of fast changing world. Integrated and speedy developed of the country is possible only when competitive banking service reach every nooks and corners of the country. Today numbers of commercial bank are concentrated in only few places between lacks of development of infrastructure in remote place. Government must give attention toward remote place.

Bank plays vital in the economic development of nations. So today it is challenging for government to formulate the new banking policy rationally in remote area. Actually more than $60 \%$ of total areas of Nepal is covered with rural areas. For the
economic upliftment of rural areas it is necessary to provide banking services in rural areas.

The research work entitled the comparative study on financial performance analysis of commercials banks include the following banks:-

1) Nabil Bank Ltd.
2) Everest Bank Ltd.

The research work should have reached the destiny where we satisfy with the queries of research problem which were specified in the statement of the problem in the introductory chapter. To conduct the research work, the researcher consulted mainly the secondary sources such as documents published by concerned banks and also consulted the personalities of the related bank as primary sources where as necessary. Before presenting and analyzing the data, there was also need to review of related books, prior research on the topic. Obviously, it helped the researcher to construct conceptual framework and to analyze and interpret the secondary data according to objective set forth previously. Then the research work was analyzed and interpreted by financial tools such as liquidity ratio, activity turnover ratio, leverage ratio and profitability ratio as well as statistical tools such as mean, standard deviation, CV and F- test (one -way ANOVA).

In this way, the researcher analyzed and presented the $4^{\text {th }}$ chapter, which was the main body of the research work. On the basis of data analysis and presentation, the researcher extracted some major findings. It has been explain along with the data analysis and presentation. So on the basis of major findings the researcher reached in the conclusions keeping in the previously set objectives in mind. Ultimately, the researcher will recommend on the research on the research problem to its stakeholders.

To know the real performance of banks, the researcher observed and analyzed the comparative performance analysis of two commercial banks for five years period. It is hoped that the comparative performance analysis of the commercial banks will give a rational result and present the overall banking scenario in terms of performance analysis.

### 5.2 Conclusion

Establishment of commercial banks especially joint venture banks have continued in response to the economic liberalization policies of the government. So, now in Nepal there are thirty one commercial banks competing with each other in their business. These commercial banks are mainly concentrated themselves on financing foreign trade, commerce, and industry. This study has been mentioned already that the research concentrates only on the comparative financial performance between joint ventures banks i.e. NBL and EBL.

Out of the 31 commercial banks the researchers has chosen only two JVBs i.e. NBL and EBL to evaluate their financial performance. The researcher has evaluated data for the least 5 years period i.e. 2006/07 to 2010/11.

The researcher has analyzed the data by using financial tools like ratio analysis as well as statistical tools like mean, s.d., hypothesis etc.
> The liquidity ratio measures the ability of a firm to meet is short -term obligations and select the short- term financial solvency of a firm. The liquidity position of the banks in term of current ratios shows that the ratios of both banks NBL and EBL are always below the normal standard (i.e. 2:1) where as EBL's average ratio is lower than NBL. It shows that the liquidity position in term of current assets to current liabilities of NBL is better than EBL. So, it is concluded that EBL is better short- term solvency position as compared with NBL. The liquidity position of cash and bank balance to deposit ratio (except fixed deposit) of EBL is higher than that of NBL (i.e. $23.54 \%>8.53 \%$ on an average). So, it is concluded that EBL has sufficient cash and bank balance to deposit except fixed deposit than that of NBL.

Likewise, the liquidity position of EBL in terms of cash and bank balance to current deposit ratio is found higher than NBL (i.e. $1.37 \%>0.42 \%$ in an average). Here, EBL has so high ratio that it is not better because "ideal assets earn nothing". So, both banks should invest in productive are. This analysis shows that EBL has more cash ideal than NBL. In the same way, fixed deposit to total deposit ratio of EBL is better than that of NBL. The ratio of EBL is higher. So, the higher ratio of fixed deposit to total deposit ratio indicates the strong liquidity position.
> The activity turnover ratio is used to examine the efficiency with which the firm manages and utilizes its assets. The activity turnover of EBL in terms of loan and advance to total deposit ratio is better than that of NBL. The average ratio of EBL is $75.61 \%$ where as the average ratio of NBL is only $69.34 \%$. From the analysis; it is concluded that EBL has been successfully utilized their deposits in term of loan and advance for profit generating purpose as compared to NBL.

In terms of Loan and advances to fixed deposit ratio of EBL is higher than that of NBL (i.e. $271.17 \%>256.46 \%$ in an average) which means that EBL is utilizing its collected resources in the form of deposits much more efficiency, which definitely lead to the increase income and thus, marking an increment profit for the organization. The turnover position in term of loan and advance to
saving deposit ratio, NBL has better turnover than EBL. NBL has invested high proportion of saving deposit in loan and advances as compared to EBL. But in terms of investment to total deposit ratio of EBL has higher average ratio (17.94\%) than that of NBL (16.89\%). So, it can be concluded that EBL is successful in utilizing its deposits on investment for income generating purpose. So in term of investment by total deposit ratio, EBL seems better than of NBL.
> The capital structure position in terms of total debt to shareholder's equity ratio of NBL is lower than that of EBL. The average of total debt to shareholder's equity ratio implies that the proportion of outsides claim, in the total capitalization, is EBL. It seems relatively more leverage. Thus, EBL has more risky implies a bank's success in exploiting debts to be more profitable as well as its riskier capital structure. The average of total debt to total assets ratio of NBL ( $91.58 \%$ ) is higher than EBL ( $91.47 \%$ ). Total debt to total assets ratio of NBL is higher as compared to EBL which implies that total debt the NBL has riskier debt financing position than that of EBL. From this analysis, capital structure ratio has clearly referred that total debt to share holder's fund and total assets are slightly higher for NBL as compared to EBL.
$>$ Profitability ratio is measurement of efficiency. It provides the degree of success in achieving desired profit. Profitability in terms of net profit to total assets ratio, net profit to total deposit ratio, return to net worth (shareholder's equity) and return on net worth ratio, NBL average ratio is always greater than that of EBL. Thus, it can be concluded that NBL is getting good return from its investment.
> Test of Hypothesis suggested that the liquidity position between NBL and EBL is significantly different at $5 \%$ level of significance. In the same way, turnover position in respect of loan and advances to total deposit ratio between NBL and EBL is significantly different at $5 \%$ level of significance. Likewise, leverage position in term of debt to equity ratio of NBL and EBL is not significantly different. Similarly, profitability position in terms of net profit margin of NBL and EBL are not significantly different at $5 \%$ level of significance.

### 5.3Recommendations

Based on the summary and conclusion, the following suggestion and recommendations are forwarded:-
$>$ The liquidity position in terms of current ratio of both banks is below than normal standard. The average ratio of NBL is higher than EBL. So, should increase current assets.
$>$ The overall liquidity position of NBL is in normal standard. EBL is also trying to gain that position. Since the liquidity position of EBL is not satisfactory level, therefore, the researcher suggests the bank to keep the reasonable amount of liquidity.
$>$ The turnover of the commercial banks is the main factor of income generating activity. From the analysis of turnover of these two banks, EBL has better turnover than NBL in terms of loan and advance to fixed deposit ratio and investment by total deposit ratio. So, EBL has better utilization of resources in income generating activities than NBL. So, it is recommended that NBL should invest its deposit in profit generating sector.
$>$ The leverage position of NBL and EBL shows that, both banks are highly leveraged. Use of more debt helped to enhance the rate of return on shareholder's fund. However, excessive use of debt may cause solvency of the bank. So these banks should maintain a proper balance of total debt to shareholder's fund.
$>$ Profitability position of NBL is in best condition as the bank is incurring higher profit. Here, comparative, NBL has better profitability position. However, both banks are not in satisfactory level. So both banks are recommended to utilize the resource more efficiently for profit generating sector. If assets remain idle, banks should bear high cost and cause low profit margin.
> From the point of view of income and expenditure analysis, the major source of income is interest received. The balance sheet as well as calculation shows that EBL has invested more amounts in government securities rather than loan and advances. So, EBL is recommended to invest in loan and advances.
$>$ The second major part of total expenses s operating expenses. The analyzed data proved that the EBL is comparatively, more efficient to reduce in operating as well as other expenses too. Even both banks should minimize their expenses as far as possible to enhance the volume of profit.
> The commercial banks have been established gradually after the commercial bank 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. But bank should prove 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 operating accounts and interest rate should be reduced for creditor.

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## Appendix -1

## Let $\sigma$ and $\bar{X}$ denote the ratio of NBL and EBL respectively

## Current Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 0.47 | 0.56 | 0.0009 | 0.0049 |
| $2007 / 08$ | 0.47 | 0.48 | 0.0009 | 0.0001 |
| $2008 / 09$ | 0.42 | 0.44 | 0.0004 | 0.0025 |
| $2009 / 10$ | 0.38 | 0.45 | 0.0036 | 0.0016 |
| $2010 / 11$ | 0.44 | 0.51 | 0 | 0.0004 |
| Total | $\mathbf{2 . 1 8}$ | $\mathbf{2 . 4 4}$ | $\mathbf{0 . 0 0 5 8}$ | $\mathbf{0 . 0 0 9 5}$ |

$$
\begin{array}{ll}
\overline{\mathrm{X}}_{1}=\frac{2.18}{5}=0.44 & \overline{\mathrm{X}}_{2}=\frac{2.44}{5}=0.49 \\
\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{0.0058}{4}}=0.038 & \mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{0.0095}{4}}=0.049 \\
\text { C.V. }=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{0.0058}{0.44} \times 100=8.64 & \text { C.V. }=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{0.049}{0.49} \times 100=10
\end{array}
$$

## Appendix -2

## Cash and Bank Balance to Deposit Ratio (except fixed deposit)

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 7.82 | 24.78 | 0.50 | 0.58 |
| $2007 / 08$ | 11.39 | 16.41 | 8.18 | 83.36 |
| $2008 / 09$ | 11.61 | 23.50 | 9.49 | 4.16 |
| $2009 / 10$ | 4.41 | 29.51 | 16.97 | 15.76 |
| $2010 / 11$ | 7.40 | 23.49 | 1.28 | 4.20 |
| Total | $\mathbf{4 2 . 6 3}$ | $\mathbf{1 1 7 . 6 9}$ | $\mathbf{3 6 . 4 2}$ | $\mathbf{1 0 8 . 0 6}$ |

$\bar{X}_{1}=\frac{42.63}{5}=8.52$
$\mathrm{SD}=\sqrt{\frac{\Sigma\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{36.42}{4}}=3.017$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{108.06}{4}}=5.20$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{3.017}{8.52} \times 100=35.41$
C.V. $=\frac{\sigma}{X} \times 100=\frac{5.20}{23.54} \times 100=22.09$

## Appendix - 3

## Cash and Bank Balance to Current Deposit

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 0.41 | 1.27 | 0.00 | 0.01 |
| $2007 / 08$ | 0.5 | 1.14 | 0.00 | 0.05 |
| $2008 / 09$ | 0.61 | 1.27 | 0.04 | 0.01 |
| $2009 / 10$ | 0.18 | 1.87 | 0.06 | 0.25 |
| $2010 / 11$ | 0.42 | 1.28 | 0 | 0.01 |
| Total | $\mathbf{2 . 1 2}$ | $\mathbf{6 . 8 3}$ | $\mathbf{0 . 1 0}$ | $\mathbf{0 . 3 3}$ |

$\overline{\mathrm{X}}_{1}=\frac{2.12}{5}=0.42 \quad \overline{\mathrm{X}}_{2}=\frac{6.83}{5}=1.37$
$\mathrm{SD}=\sqrt{\frac{\Sigma\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{0.10}{4}}=0.158$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{0.33}{4}}=0.29$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{0.158}{0.42} \times 100=37.62$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{0.29}{1.37} \times 100=21.17$

## Appendix -4

## Fixed Deposit to Total Deposit Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 23.28 | 29.63 | 18.15 | 0.92 |
| $2007 / 08$ | 26.52 | 27.52 | 1.04 | 1.32 |
| $2008 / 09$ | 22.25 | 21.29 | 27.98 | 54.46 |
| $2009 / 10$ | 31.75 | 28.27 | 17.72 | 0.16 |
| $2010 / 11$ | 33.89 | 36.62 | 40.33 | 63.20 |
| Total | $\mathbf{1 3 7 . 6 9}$ | $\mathbf{1 4 3 . 3 3}$ | $\mathbf{1 0 5 . 2 2}$ | $\mathbf{1 2 0 . 0 7}$ |

$\bar{X}_{1}=\frac{137.69}{5}=27.54$
$\bar{X}_{2}=\frac{143.33}{5}=28.67$
$\mathrm{SD}=\sqrt{\frac{\Sigma\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{105.22}{4}}=5.13$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{120.07}{4}}=5.48$
C.V. $=\frac{\sigma}{X} X 100=\frac{5.13}{27.54} \times 100=18.63$
C.v. $=\frac{\sigma}{X} \times 100=\frac{5.48}{28.67} \times 100=19.11$

## Appendix -5

## Loan and Advance to Total Deposit Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 55.78 | 73.62 | 183.87 | 3.96 |
| $2007 / 08$ | 67.41 | 78.47 | 3.72 | 8.18 |
| $2008 / 09$ | 74.48 | 73.12 | 26.42 | 6.20 |
| $2009 / 10$ | 71.01 | 76.17 | 2.79 | 0.31 |
| $2010 / 11$ | 78.01 | 76.67 | 75.17 | 1.12 |
| Total | $\mathbf{3 4 6 . 6 9}$ | $\mathbf{3 7 8 . 0 5}$ | $\mathbf{2 9 1 . 9 8}$ | $\mathbf{1 9 . 7 8}$ |

$\bar{X}_{1}=\frac{346.69}{5}=69.33$
$\bar{X}_{2}=\frac{378.05}{5}=75.21$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{291.98}{4}}=8.54$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{19.78}{4}}=2.22$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{8.54}{69.33} \times 100=12.32$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{2.22}{75.21} \times 100=2.95$

## Appendix -6

## Loan and Advance to Foxed Deposit Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 239.57 | 248.45 | 285.27 | 516.20 |
| $2007 / 08$ | 254.19 | 285.15 | 5.15 | 195.44 |
| $2008 / 09$ | 334.71 | 343.44 | 6123.06 | 5222.95 |
| $2009 / 10$ | 223.66 | 269.43 | 1075.84 | 3.03 |
| $2010 / 11$ | 230.19 | 209.37 | 690.11 | 3819.24 |
| Total | $\mathbf{1 2 8 2 . 3 2}$ | $\mathbf{1 3 5 5 . 8 4}$ | $\mathbf{8 1 7 9 . 4 4}$ | $\mathbf{9 7 5 6 . 8 6}$ |

$\overline{\mathrm{X}}_{1}=\frac{1282.32}{5}=256.46$

$$
\bar{X}_{2}=\frac{1355.84}{5}=271.17
$$

$S D=\sqrt{\frac{\Sigma\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{8179.44}{4}}=45.22$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{9756.86}{4}}=49.39$
C.V. $=\frac{\sigma}{X} \times 100=\frac{45.22}{256.46} \times 100=17.63$
C.V. $=\frac{\sigma}{X} X 100=\frac{49 . .39}{271.17} \times 100=18.21$

## Appendix -7

## Loan and Advance to Saving Deposit Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | ---: | ---: | ---: |
| $2006 / 07$ | 127.82 | 155.9 | 5356.78 | 923.55 |
| $2007 / 08$ | 176.93 | 158.32 | 579.85 | 782.32 |
| $2008 / 09$ | 190.26 | 164.83 | 115.56 | 460.53 |
| $2009 / 10$ | 238.71 | 210.55 | 1421.29 | 588.55 |
| $2010 / 11$ | 271.31 | 241.85 | 4942.09 | 3086.91 |
| Total | $\mathbf{1 0 0 5 . 0 3}$ | $\mathbf{9 3 1 . 4 5}$ | $\mathbf{1 2 4 1 5 . 5 7}$ | $\mathbf{5 8 4 1 . 8 7}$ |

$\overline{\mathrm{X}}_{1}=\frac{1005.03}{5}=201.01$
$\bar{X}_{2}=\frac{931.45}{5}=38.22$
$\mathrm{SD}=\sqrt{\frac{\Sigma\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{12415.57}{4}}=55.71$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}} \sqrt{\frac{5841.87}{4}}=38.22$
C.V. $=\frac{\sigma}{X} \times 100=\frac{55.71}{201.01} \times 100=27.72$
C.V. $=\frac{\sigma}{\mathrm{X}} \times 100=\frac{38.22}{20.52} \times 100=18.21$

## Appendix -8

## Investment to Total Deposit Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 22.96 | 24.63 | 36.84 | 44.76 |
| $2007 / 08$ | 15.32 | 20.46 | 2.46 | 6.35 |
| $2008 / 09$ | 10.65 | 15.44 | 38.94 | 6.25 |
| $2009 / 10$ | 17.54 | 11.79 | 0.42 | 37.82 |
| $2010 / 11$ | 17.95 | 17.37 | 1.12 | 0.32 |
| Total | $\mathbf{8 4 . 4 2}$ | $\mathbf{8 9 . 6 9}$ | $\mathbf{7 9 . 7 9}$ | $\mathbf{9 5 . 5 0}$ |

$\overline{\mathrm{X}}_{1}=\frac{84.42}{5}=16.89$
$\bar{X}_{2}=\frac{89.69}{5}=17.94$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{79.79}{4}}=4.46$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}} \sqrt{\frac{95.50}{4}}=4.89$
c.v. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{4.46}{16.89} \times 100=26.41$
C.v. $=\frac{\sigma}{X} \times 100=\frac{4.89}{17.94} \times 100=27.26$

## Appendix -9

## Total Debt to Share Holders Fund

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 14.45 | 21.61 | 2.10 | 15.84 |
| $2007 / 08$ | 17.34 | 16.12 | 2.07 | 2.28 |
| $2008 / 09$ | 17.19 | 17.08 | 1.66 | 0.30 |
| $2009 / 10$ | 15.88 | 17.70 | 0.00 | 0.00 |
| $2010 / 11$ | 14.65 | 15.66 | 1.56 | 3.88 |
| Total | $\mathbf{7 9 . 5 1}$ | $\mathbf{8 8 . 1 7}$ | $\mathbf{7 . 4 0}$ | $\mathbf{2 2 . 3 1}$ |

$\overline{\mathrm{X}}_{1}=\frac{79.51}{5}=15.90$
$\bar{X}_{2}=\frac{88.17}{5}=17.94$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{7.40}{4}}=1.36$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}} \sqrt{\frac{22.31}{4}}=2.36$
C.V. $=\frac{\sigma}{X} \mathrm{X} 100=\frac{1.36}{15.90} \times 100=8.55$
C.V. $=\frac{\sigma}{X} X 100=\frac{2.36}{17.63} \times 100=13.39$

## Appendix -10

## Total Debt to Total Assets Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 91.37 | 89.24 | 0.04 | 4.97 |
| $2007 / 08$ | 92.7 | 90.38 | 1.25 | 1.19 |
| $2008 / 09$ | 91.16 | 92.89 | 0.18 | 2.02 |
| $2009 / 10$ | 90.98 | 92.75 | 0.36 | 1.64 |
| $2010 / 11$ | 91.67 | 92.11 | 0.01 | 0.41 |
| Total | $\mathbf{4 5 7 . 8 8}$ | $\mathbf{4 5 7 . 3 7}$ | $\mathbf{1 . 8 4}$ | $\mathbf{1 0 . 2 3}$ |

$\bar{X}_{1}=\frac{457.88}{5}=91.58 \quad \bar{X}_{2}=\frac{457.37}{5}=91.47$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{91.58}{4}}=0.68$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}} \sqrt{\frac{10.23}{4}}=1.60$
C.V. $=\frac{\sigma}{X} \times 100=\frac{068}{91.58} \times 100=0.74$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{1.60}{91.47} \times 100=1.75$

## Appendix -11

Net Profit to Total Assets Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 2.27 | 1.27 | 0.02 | 0.18 |
| $2007 / 08$ | 1.94 | 1.58 | 0.04 | 0.01 |
| $2008 / 09$ | 2.24 | 1.68 | 0.01 | 0.00 |
| $2009 / 10$ | 2.09 | 1.98 | 0.00 | 0.08 |
| $2010 / 11$ | 2.18 | 1.99 | 0.00 | 0.08 |
| Total | $\mathbf{1 0 . 7 2}$ | $\mathbf{8 . 5}$ | $\mathbf{0 . 0 7}$ | $\mathbf{0 . 3 6}$ |

$\bar{X}_{1}=\frac{10.72}{5}=2.14 \quad \bar{X}_{2}=\frac{8.5}{5}=1.70$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{0.07}{4}}=0.13$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}} \sqrt{\frac{0.36}{4}}=0.30$
C.V. $=\frac{\sigma}{\mathrm{X}} \times 100=\frac{0.13}{2.14} \times 100=6.07$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{0.30}{1.70} \times 100=17.65$

## Appendix -12

Net Profit to Total Deposit Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 2.89 | 1.55 | 0.07 | 0.18 |
| $2007 / 08$ | 2.34 | 1.88 | 0.08 | 0.01 |
| $2008 / 09$ | 2.76 | 1.92 | 0.02 | 0.00 |
| $2009 / 10$ | 2.46 | 2.25 | 0.03 | 0.08 |
| $2010 / 11$ | 2.69 | 2.26 | 0.00 | 0.08 |
| Total | $\mathbf{1 3 . 1 4}$ | $\mathbf{9 . 8 6}$ | $\mathbf{0 . 2 0}$ | $\mathbf{0 . 3 5}$ |

$\bar{X}_{1}=\frac{13.14}{5}=2.63$
$\bar{X}_{2}=\frac{9.86}{5}=1.97$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{0.20}{4}}=0.22$
$S D=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}} \sqrt{\frac{0.35}{4}}=0.29$
C.V. $=\frac{\sigma}{X} X 100=\frac{0.22}{2.63} \times 100=8.37$
C.V. $=\frac{\sigma}{\mathrm{X}} \mathrm{X} 100=\frac{0.29}{1.97} \times 100=14.72$

## Appendix -13

## Return on Net worth Ratio

| Year | $\mathbf{X}_{\mathbf{1}}$ | $\mathbf{X}_{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{1}}-\overline{\mathbf{X}}_{\mathbf{1}}\right)^{\mathbf{2}}$ | $\left(\mathbf{X}_{\mathbf{2}}-\overline{\mathbf{X}}_{\mathbf{2}}\right)^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2006 / 07$ | 35.95 | 30.76 | 1.49 | 2.28 |
| $2007 / 08$ | 36.29 | 28.17 | 0.77 | 16.81 |
| $2008 / 09$ | 42.32 | 30.9 | 26.52 | 1.88 |
| $2009 / 10$ | 36.4 | 37.75 | 0.59 | 30.03 |
| $2010 / 11$ | 34.88 | 33.75 | 5.24 | 2.19 |
| Total | $\mathbf{1 8 5 . 8 4}$ | $\mathbf{1 6 1 . 3 3}$ | $\mathbf{3 4 . 6 2}$ | $\mathbf{5 3 . 1 9}$ |

$$
\begin{array}{ll}
\bar{X}_{1}=\frac{185.84}{5}=37.17 & \bar{X}_{2}=\frac{161.33}{5}=32.27 \\
\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{34.62}{4}}=2.94 & \mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{53.19}{4}}=3.65 \\
\text { C.V. }=\frac{\sigma}{X} \times 100=\frac{2.94}{37.17} \times 100=7.91 & \text { C.V. }=\frac{\sigma}{X} \times 100=\frac{3.65}{32.27} \times 100=11.31
\end{array}
$$

## Appendix -14

## Net Profit Margin Ratio

| Year | Cash+bank balance |  | $\sqrt{x}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Current Deposit |  |  |  |  |
| $2006 / 07$ | 45.53 | 35.23 | 1.39 | 226.80 |
| $2007 / 08$ | 44.69 | 37.29 | 0.12 | 169.00 |
| $2008 / 09$ | 46.42 | 54.4 | 4.28 | 16.89 |
| $2009 / 10$ | 41.21 | 60.19 | 9.86 | 98.01 |
| $2010 / 11$ | 43.92 | 64.32 | 0.18 | 196.84 |
| Total | $\mathbf{2 2 1 . 7 7}$ | $\mathbf{2 5 1 . 4 3}$ | $\mathbf{1 5 . 8 4}$ | $\mathbf{7 0 7 . 5 5}$ |

$\bar{X}_{1}=\frac{221.77}{5}=44.35$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{15.84}{4}}=1.99$
$\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{707.55}{4}}=13.3$
C.V. $=\frac{\sigma}{X} \mathrm{X} 100=\frac{1.99}{44.35} \times 100=4.89$
C.V. $=\frac{\sigma}{X} \times 100=\frac{13.30}{50.29} \times 100=26.45$

## Appendix -15

## Return on Investment

| Year | X | Exay | $x$ x | $\frac{\text { Cash+bank balance }}{\text { Current }{ }^{\text {deposit }}}$ |
| :---: | :---: | :---: | :---: | :---: |
| 2006/07 | 12.58 | 6.3 | 15.76 | 32.49 |
| 2007/08 | 15.27 | 9.2 | 1.64 | 7.84 |
| 2008/09 | 25.91 | 12.41 | 87.61 | 0.17 |
| 2009/10 | 14.01 | 19.1 | 6.45 | 50.41 |
| 2010/11 | 15 | 13.03 | 2.40 | 1.06 |
| Total | 82.77 | 60.04 | 113.86 | 91.97 |

$\overline{\mathrm{X}}_{1}=\frac{82.77}{5}=16.55 \quad \overline{\mathrm{X}}_{2}=\frac{60.04}{5}=12$

$$
\begin{array}{ll}
\mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{113.86}{4}}=5.33 & \mathrm{SD}=\sqrt{\frac{\sum\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)^{2}}{\mathrm{~N}-1}}=\sqrt{\frac{91.97}{4}}=4.80 \\
\text { C.V. }=\frac{\sigma}{X} \mathrm{X} 100=\frac{5.33}{16.55} \times 100=32.20 & \text { C.V. }=\frac{\sigma}{X} \mathrm{X} 100=\frac{4.80}{12} \times 100=40
\end{array}
$$

