A STUDY ON LIQUIDITY POSITION OF JOINT VENTURE COMMERCIAL BANKS IN NEPAL

A THESIS

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VIVA- VOCE SHEET

We have conducted the Viva- Voce examination of thesis prepared by

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has been approved by this Department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

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DECLARATION

I hereby declare that the thesis **A STUDY ON LIQUIDITY POSITION OF JOINT VENTURE COMMERCIAL BANKS IN NEPAL** submitted to Nepal Commerce Campus, the Faculty of Management, Tribhuvan University is my original work done for the partial fulfillment of requirements for the Master's Degree of Business Studies (M.B.S.) under the supervision of **Mr. Sushil Bhakta Mathema** and **Mr. Madan Kandel** of Nepal Commerce Campus.

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ABBREVIATIONS

CD	: Credit Deposit
CEO	: Chief Executive Officer
CRR	: Cash Reserve Ratio
CV	: Coefficient of Variation
EBL	: Everest Bank Limited
ETC	: Etcetera
F/Y	: Fiscal Year
IMF	: International Monetary Fund
L/C	: Letter of Credit
Ltd.	: Limited
NABIL	: Nepal Arab Bank Limited
NBB	: Nepal Bank Limited
NPA	: Non Performing Assets
NRB	: Nepal Rastra Bank
PE	: Probable Error
Pvt.	: Private
RBB	: Rastriya Banijya Bank
SCBNL	: Standard Chartered Bank Nepal Limited
NIDC	: Nepal Industrial Development Corporation
SLR	: Statutory liquidity Ratio
SD	: Standard Deviation

CHAPTER - I
INTRODUCTION

1.1 Background of the Study

The economy of a country indicates the development of the country. The financial sector plays an important role in the development of the country and mobilization of financial resources. The financial sector consists of banks, co-operative societies, insurance companies, stock markets, foreign exchange markets, mutual funds, provident fund etc. Financial sector organizes the scattered domestic financial resources and invest them in different sectors. Economic development depends upon various factors however, the major are capital formation and proper utilization of the capital.

Banks play an important role in the economic growth of a country. Banking, when properly organized, aids and facilitates the growth of trade and industry. In the modern economy, banks are to be considered not as dealers in money but as the leaders of development. "Banks are not just the storehouse of the country's wealth but are the reserves of the resources necessary for economic development. Bank renders valuable services to trade and industry. The economic growth of the country depends on ht growth and development of trade and industry. Industrial development can take place only if sufficient money is invested in industries. Banks undertake the stupendous task by mobilizing the savings of the people and lending the same to the traders and industrialists. The bank helps in the uniform development of the different regions in the country" *(Radhaswamy & Vasudevan, 1994: 521).*

Liquidity is a word that can be taken as to perform the life cycle system of financial institution's activities in a perfect manner. It can overall define the securities management of the cash balance in a systematic way. In this regard, the term liquidity management is used to describe money and assets that are readily convertible into money with a very short span of time. For this different assets exhibits different degrees of liquidity depending upon the case of turning into cash.

1.2 Meaning of Commercial Bank

Commercial Banks are those banks, which perform all kinds of banking function as accepting deposits, advancing credits, credits creation and agency functions etc. They are the most widely diversified and visible player among the financial institutions. They provide short-term credit, medium-term credits and long-term credit for trade and industry. They also operate off-balance sheet functions such as issuing guarantee, bonds, letter of credit, etc.

Commercial banks have been playing vital role in giving a direction to economy development over time by financing the requirements of trade and industry in the country. By encouraging thrift among people, banks have fostered the process of capital formation in the country. Commercial banks draw the community savings into the organized sector which can then be allocated among the different economic activities according to the priorities laid down by planning authorities in the country. In the planned economy, banks make the entire planned productive process possible by providing funds for all types of production incorporated in the plan, regardless of whether the production is in the public sector, joint sector, or in the private sector, or whether the production is undertaken by one types of organization or another. In short, the growth of the economy is tied with the growth of the commercial banks in the economy.

Commercial banks make sound investment in various sectors of the economy, which boost the quality and quantity of investment as well as achieves, its own objectives of profit maximization. Thus, well-formulated and sound investment policies, coordinated and planned efforts accelerate the pace of economic growth.

Now the commercial banks are being run by banks and financial institution ordinance 2061 which has replaced the previous commercial bank act 2031. According to the ordinance, bank and financial institution are divided into four groups. Commercial banks are placed in group 'A' but not mention explicitly. Functions of commercial banks are as follows:

- To accept the deposits with or without interest under current, saving and fixed accounts and mobilizes the deposited money very effectively.
- To provide loan against securities, movable property, company share, or debenture, bills of exchange and promissory notes or invest on them.
- To issue, accept, discount, buying or selling of bills of exchange and promissory notes and cheques.
- To deal with foreign exchanges etc.

1.3 Introduction of Sample Organizations under Study

Nabil Bank Limited (NABIL)

Nabil Bank Limited was incorporated in collaboration with Emirates Bank International (Dubai) in 1984 in name of Nepal Arab Bank Limited. Nabil Bank Ltd. is the first joint venture bank in Nepal, established in 1984 A.D. under the company act. Dubai Bank Ltd. was the initial foreign joint venture partner with 50% equity investment. The shares owned by DBL were transferred to Emirates Bank International Ltd. (EBIL), Dubai. Later on EBIL sold its entire holding to National Bank Ltd. Bangladesh (NBLB). Nabil bank limited had the official name Nepal Arab Bank Ltd. till 31st December, 2001. Hence 50% equity share of Nabil Bank Ltd. are held by NBLB and out of another 50%, financial institutions has taken 20% and remaining 30% were issued to general public of Nepal. At present 19 branches are operated in different parts of the country.

Standard Chartered Bank Nepal Limited (SCBNL)

Standard Chartered Bank Nepal Limited was incorporated in collaboration with ANZ Grindlays Bank Limited in 1987 as third joint venture bank. The bank was initially incorporated in the name of Nepal Grindlays Bank limited. In 2000, the ANZ Grindlays Bank was amalgamated in Standard Chartered Banking group and 50% stake of former was transferred to the latter by the virtue of amalgamation. Consequently, the name of the bank was hanged as Standard Chartered Bank Nepal Limited. Standard Chartered Bank Nepal Limited is a joint venture with Standard Chartered Grind Lays Bank Ltd. Australia & UK. Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an

integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status the largest international bank currently operating in Nepal.

Everest Bank Limited (EBL)

Everest Bank Limited is one of the leading Bank of Nepal. EBL was set up tin private sector and commenced its operation in 8th October 1994 AD. It was established in 1992 under the company Act, 1964 with Punjab National Bank (PNB). The Bank is considered as one of the leading and profit going commercial Bank in India having over 100 years of successful banking experience and known for its strong system and procedure. The main aim of EBL is to extend professional banking services to various sectors of the society in the kingdom of Nepal and there by contributing in the economic development of the country. On equity holding PNB has 20% equity participation in its total shareholding and also has undertaken management responsibility under a technical service agreement and other balance is maintained by Nepalese investors. The promoters of Nepal have shares of 50% in total and rest 30% goes to General Public. EBL has got its authorized capital of Nrs. 750 million and its paid up capital of Nrs.518 million (general equity 378 million and preference share 140 million).

1.4 Statement of the Problem

Liquidity is the most sensible and critical aspect of banks. The managers should be foresighted and able to predict future demand and supply of liquidity. They should know the trends of liquidity demands on the basis of passed experience. In a book published by the World Bank titled Excess Liquidity & Monetary Overhangs, it was stated that there is mostly excess liquidity in the financial institutions of the developing economies. Similarly, the IMF opines that excess liquidity is a great problem for developing economics and results not form the dearth of lending opportunities or demanding for and form a number of system & institutional shortcomings (IMF, 1985; 25).

Basically, liquidity is maintained to meet regular operation and make schedule payment. Every bank tries to maintain its liquidity position for fulfillment of mainly two purposes. They are precaution motive for unexpected needs and contingencies due to irregularities in cash flow. To fall in this area may severely damage public confidence upon bank. We can imagine the reaction of customers if the cash counter and teller machines is to be closed one morning because the bank is temporarily out of cash and cannot cash cheques. So and must give high priority to meet demands for liquidity. Meanwhile, as we know that the financial institutions are profit oriented and there should be optimum disbursement of deposits in loan and advances so that more and more income can be generated.

Hence it is clear that the problem of liquidity or excess liquidity to be specific is a regular phenomenon in the developing economics. The most important problem that the financial institutions want to know is the appropriate level of liquid assets to meet the threat of withdrawals, give away loans to the customers and to invest in profitable ventures. Without the proper management of liquidity, the above mentioned daily operation of financial institution cannot be met.

Managing liquidity has become very vital in financial institutions. Every bank is therefore, concentrating on liquidity management. They are searching the areas that can safeguard there liquidity to make liquidity position fluently as much as possible. Thus, the specific research questions regarding liquidity management in Nepalese Commercial Banking sector are identified as follows:

- Are the banks maintaining sufficient liquidity?
- Are the banks aware for the liquidity requirements?
- Do the liquidity positions of the banks satisfy their requirement?
- How are the banks going to manage their liquidity positions to the sufficient balance?

1.5 Objectives of the Study

Based on this aspect this field work tries to deal with the study of liquidity position of commercial banks.

The Specific Objectives of the Study are:

- To analyze the existing liquidity position of the banks by using various ratio analysis.
- To evaluate the trend of deposit mobilization and trend of different ratios used in the study under various prospects.
- To examine the relationship between liquidity and profitability of the banks.
- To provide suggestion and recommendation on the basis of major findings.

1.6 Scope of the Study

Each and every business organization needs appropriate amount of liquidity (i.e. cash and other near cash items) to run its daily operations. The liquidity totally depends on how big or small an organization is. Big organization such as bank, manufacturing organization, finance companies needs huge amount of liquidity. The liquidity requirement is different for different organization. The study is to cover the liquidity position and liquidity requirement of the selected commercial banks. It traces the trend of the liquid assets of the commercial banks of Nepal. It is the arrangement and the allocation of funds such a way that can be drawn immediately without any low on principle. Even though liquidity exists in each and every business organization, this study is confined only with the liquidity aspect of the commercial banks.

1.7 Significance of the Study

Liquidity is much more than holding of non-earning assets. There should be an appropriate equilibrium between the non-earning and earning assets. Banks are always guided by the objectives of earning profits. All financial decisions of bank are the betterment of shareholder's wealth. There should be an effective system of funds allocation in order to safe guard the banks form the danger of shortage of liquid assets or illiquidity. An appropriate level must be achieved between them. The study ponders to find out whether banks are alert or not in this regard and whether liquidity management is duly taken care or not. The study will ascertain possible situations where the banks need additional liquid funds. By this study, liquidity management policy of the bank will be obtained so that shareholders, general public and regulatory authority can raise the relevant questions.

The Importance of the Study is mentioned below:

To get familiar with some aspect of liquidity by performing various financial analysis.

To make the analysis of the liquidity position and come to conclusion about their liquidity position

To find out the position of the mentioned commercial banks in the banking field of Nepal.

1.8 Limitations of the Study

Never the less, the analysis performed and conclusion drawn regarding the Liquidity Position of Nepalese Commercial Banks; there is considerable place for arguing about its accuracy and reliability. There are limitations which weaken the conclusion e.g. inadequate data, time and other variable. This thesis simply fulfills the requirement of Masters in Business Studies (M.B.S.) 2nd year program. So this study will be limited by following factors:

- Only secondary data available is analyzed.
- The study period will cover only five fiscal year i.e. 2007/08 to 2011/12 of Standard Chartered Bank and Nabil Bank and Everest Bank Limited.
- There are many factors that affect liquidity of bank, international liquidity and valuation of firm however only related factor will be taken into consideration in this study.

1.9 Organization of the Study

The present study is organized in such a way that the stated objectives can easily be fulfilled. The structure of the study will try to analyze the study in a systematic way. The study report has presented the systematic presentation and finding of the study. The study report is designed in five chapters, which are as follows:

Chapter- I: Introduction

This chapter deals with the basic concept and background of the study. This chapter consist the statement of the problem, objectives of the study, significance of the study and limitation of the study.

Chapter- II: Review of Literature

Second chapter deals with review of Literature. It includes conceptual reviews, review of pervious thesis, review of journals and articles that are published in different news papers.

Chapter- III: Research Methodology

Third chapter contains research methodology, which includes general introduction, research design, method of analysis, population & sample, sources of data, data processing procedures and analysis of tools & techniques.

Chapter – IV: Presentation and Analysis of Data

This chapter is the heart of the study. This chapter deals with presentation and analysis of relevant data and information through research mythology and major findings.

Chapter – V: Summary, Major Findings, Conclusion and Recommendations

Lastly, this chapter summarizes the whole study and states main findings, issues, gaps and offers recommendation for the improvement in future to the related sector and the conclusion of the study.

Appendix and bibliography will be presented in the last part of the thesis to get the clear picture of the study.

CHAPTER - II
REVIEW OF LITERATURE

The review of literature is a crucial aspect because it denotes planning of the study. The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field of the research study being undertaken. For review study, the researcher uses different books, reports, journals and research studies published by various institutions, unpublished dissertations submitted by master level students have been reviewed.

It is divided into two headings:

- Conceptual Framework
- Review of different Studies

2.1 Conceptual Framework

Liquidity is the status and part of asset, which can be used to meet the obligation. Simply it can be viewed in term of liquidity stored in the balance sheet and in term of liquidity available through purchased funds. The degree of liquidity depends upon the relationship between cash assets plus those assets, which can be quickly turned into cash and the liability awaiting payment (Engune, 1972: 110).

The liquidity position of banks is very important to maintain the public faith upon the banks. When a bank fails to repay deposited money on demanded, it leads to the loss of faith upon banks. Lack of adequate liquidity is often one of the first sings that a bank is in serious financial trouble. Therefore in banking, liquidity is very fundamental for smooth operation of daily banking activities.

Some definitions of liquidity given by different writes are as follows:

"Liquidity is the banker's ability to satisfy demand for cash in exchange for deposit" (R.S Sayers, 1992: 231).

"An asset is completely liquidity if its owner can count with absolute certainty on leaning into cash at a very short notice and without loss" (Manning Decay, 1989:240).

As there are differing views of different writers about liquidity so is the issue of maintaining liquidity according to its principle i.e. the real bills doctrine, the shiftability theory, the anticipated income theory and liability management theory. The prediction of liquidity needs is always not earning and accumulating. So every institution should mange their liquidity in such a way that they will be able to ensure the fund-capacity to meet all normal business commitment at a reasonable price at all time. The earning of liquidity should refer to the money stock in the banks and financial institutions and the assets that can be converted as soon as the demand made or the capacity of commercial banks to fulfill the need of depositors for cash.

Liquidity of the bank should be maintained according to the standard. Excess liquidity as well as lack of liquidity can be considered as bad symptoms to the firm. On the other hand the bank cannot operate its internal and other marketing function properly. If the bank does not hold adequate liquidity, it will not be able to take advantage of favorable business opportunities and meet emergencies such as fires or competitors marketing campaign. A very high degree of liquidity is also bad, here assets remain idle which adds nothing to bank's earning. The firm's funds will be unnecessarily tied up in current assets which could be used otherwise.

Thus, researcher can say that the skill of bank to hold adequate liquidity helped to earn its reputation. Thus, researcher can say that it is optimum necessity of the bank to maintain a proper balance between high liquidity and low liquidity. Liquidity is the word that the banker uses to describe his ability to satisfy demand for cash in exchange for deposit. Therefore liquidity management is much more important than we realize, because a bank can be closed if it cannot raise enough liquidity even though technically it may still be solvent.

Liquidity Ratio:

To test the solvency position for the payment of short term liabilities ifs the purpose of this ratio. Solvency position or liquidity denotes ability for payment of short-term liabilities.

These are of two types:

- Current Ratio
- Quick / Acid test / Liquid Ratio

Current Ratio

This ratio is computed using two items current assets and current liabilities. Current assets includes those ratios which can be converted into cash within one year period such as cash, bank balance, inventory, sundry debtors, bills receivable, prepaid expenses, outstanding expenses etc.

Current liabilities are those liabilities which are payable within a year such as sundry creditors, bills payable, bank overdraft, outstanding expenses, accrued expenses, income received in advance and tax payable etc.

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

Quick Ratio:

Here, this ratio shows the ability of the firm on paying current liabilities by quick assets. Quick assets include those assets, which can be converted into cash within a year. And this can be obtained by deducting prepaid and stocks from current assets.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Prepaid}}{\text{Current liabilities}}$$

Leverage ratio or capital structure ratio:

To evaluate on the capital collection or formation of a company and to test the solvency position for payment of long term liability are the purpose of this ratio .A firm can collect the capital from two sources and they are

(a) Shareholder's Equity (b) Borrowed Capital

This ratio includes the following:

1) Debt Equity Ratio = $\frac{\text{Long-term debt}}{\text{Shareholder's equity}}$

OR

$$= \frac{\text{Total debt}}{\text{Shareholder's equity}}$$

Highest ratio is not preferable for a company, which shows that the company has higher borrowed capital .The higher borrowed capital is more risky than the higher owner's capital, because the certain rate of interest has to be paid periodically on borrowed capital .The decreasing ratio is favorable, whish shows that the firm is repaying its capital.

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

OR

$$= \frac{\text{Total Debt}}{\text{Total Capital}}$$

Interest Coverage Ratio:

To test on the capacity of a firm for payment in interest on borrowed capital is the purpose of this ratio. It is also known as coverage ratio.

Coverage Ratio = $\frac{\text{EBIT}}{\text{Interest}}$

(Where, EBIT = Earning before interest and tax)

Higher ratio shows that a firm can pay the interest easily, so the increasing or higher percentage is favorable.

Other ratios:

Cash and Bank balance to current assets ratio:

Cash and bank balance are the best liquid assets. This ratio shows the ability of immediate payment of liabilities as the percentage of current assets.

$$\text{Cash and bank balance to current assets ratio} = \frac{\text{Cash and bank balance}}{\text{Current Assets}}$$

Cash and Bank balance to current liability ratio:

This ratio shows the percentage of cash and bank balance of current liability. This ratio also indicates the percentage of current liabilities, which can be paid by firm immediately. This ratio is important for those people who are looking for investing their funds in the firm.

$$\text{Cash and Bank balance to current liability ratio} = \frac{\text{Cash and Bank balance}}{\text{Current liabilities}}$$

Loan, Advances and Overdraft to Current Assets ratio:

This ratio shows the percentage of loan, Advances & overdraft of current Assets .It indicates that how much percentage of current assets is investing into the loan, advances & overdraft.

$$\text{Loan, advances \&overdraft to current assets ratio} = \frac{\text{Loan advance \& overdraft}}{\text{Current Assets}}$$

Investment on government securities to current assets ratio:

Government securities are marketable securities. This ratio shows the percentage of Investment on government securities of current assets. Investing in government securities is less risky but it earns low profit.

Investment on government securities to current assets ratio

$$= \frac{\text{Investment on government securities}}{\text{Current assets}}$$

Fixed deposit to total ratio:

Fixed deposit includes the deposits, which are deposited by the depositors for a certain period of time. Depositors can't draw money from bank before the maturity time of the deposit, so the bank can invest all the funds of fixed deposit scheme in high interest

earning sector till its maturity date. This ratio shows the percentage of fixed deposit against total deposit.

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

Saving deposit to total deposit ratio:

Saving deposit is also very important for a bank. Maximum people like to deposit their money in this account, so the bank collects maximum funds from this account .In the time of liquation the bank must pay first to saving deposits.

$$\text{Saving deposits to total deposit} = \frac{\text{Saving deposit}}{\text{Total deposit}}$$

Working capital ratio:

Working capital is the capital that makes the firm alive. Working capital is the blood of an organization. Minimum or maximum amount of working capital than required is not favorable for a company. Maximum amount of working capital increase the cost and minimum amount of working capital creates problem for running business smoothly. Therefore, company must keep its working capital as optimal size.

$$\text{Working capital ratio} = \frac{\text{Current Assets} - \text{Current Liability}}{\text{Net assets}}$$

Cash and Bank Balance to Current Assets Ratio:

This ratio is obtained by the dividing cash & bank balance by current assets. Cash and bank balance are very high liquid assets. This fund can be used immediately to pay liabilities. This ratio indicates the percentage of the current assets invested in cash and bank balance. High percentage is not favorable to the current assets and lack of investment opportunities. It increases cost and loss of opportunity profit. But the bank

must keep quick ratio higher than other manufacturing company because of its nature of business.

$$\text{Cash \& Bank Balance to Current Assets ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current Assets}}$$

Investment on Government Securities to Current Assets Ratio:

Governments securities are risk free securities. They are also marketable securities. This ratio presents the percentage of current assets that is invested on government securities. The higher ratio shows that the bank is safer. However, since the investments on government securities have low rate of return, its profitability is lower as well. Generally, it is considered that a bank will invest more on government securities only when other lucrative investment opportunities are not available Investment on Government securities to Current Asset Ratio

$$= \frac{\text{Investment on Government Securities}}{\text{Current Asset}}$$

Loan & Advances to Current Assets Ratio:

In this context, loan & advances refers to the one, which is given by the bank to its customers. Normally, bank will charge higher interest rate for this type of service. Hence, it is desirable to have highest possible ratio of this type from this aspect. However, some of these might fall under bad debt .So, when analyzing we have to be careful about the bad debt factor. So, all the amount of loan & advances cannot categorize in risk-free assets. Staff loan is not taken in Loan & advance, because the company from salary instead of lump sum will deduct some percentage of staff-loan.

Fixed Deposit to Total Deposit Ratio:

A fixed deposit includes the deposits that are deposited by the depositors for a certain period of time. Depositors cannot draw the money of that deposit before the maturity date .So, the bank invest all the money of fixed deposit scheme in high return earning sector. This ratio shows the percentage of fixed deposit of total deposit. Increasing ratio is favorable for the bank.

Saving Deposit to Total Deposit Ratio:

In saving deposit account, depositors can draw limited amount of money in certain period of time .In the time of liquidation the bank must pay first to saving deposit holders. This ratio shows the percentage of saving deposits against total deposits.

Saving deposits to total deposit ratio can be obtain by dividing saving deposit by total deposit.

Interest Coverage Ratio:

This ratio indicates the bank's ability to pay interest. This ratio can be obtained by divided EBIT by interest. EBIT includes net profit carried down, provision for income tax, general loan loss provision, provision for staff bonus and interest paid amount.

Increasing or higher ratio is favorable to the company because higher ratio shows that the firm can pay its interest easily.

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

Leverage Ratio:

To evaluate on the capital collection or formation of a company is the purpose of this ratio. To test the solvency position for the payment of long-term liability is also purpose of this ratio. A firm can collect the capital from following two sources.

(a) Shareholder's Equity (b) Borrowed Capital

Activity Ratio:

To test on sales is the purpose of this ratio. This can be evaluated in relation to different investment such as stocks, debtors, fixed assets, total assets and total capital.

Profitability Ratio:

To evaluate the earning of a company for a certain period is known as profitability ratio. The profit can be evaluated in relation to the sales or in relation to investment.

2.1.1 Theories of Liquidity

Basically the principle theories are specially designed for banking sectors but it seems not much difference between application of banking sector and financial sector. So in this prospect conflicts between objective of liquidity, safety and probability relating to finance companies can also be highlighted firm given theories. Hence economists have tried to resolve these conflicts by laying down certain theories form time to time. These principle or theories, in face govern the distribution of assets keeping in view these objectives. They have also come to be known as the theories of liquidity management, which are discussed as under:

- The real bills doctrine
- The shiftability theory
- The liability management

i) The Real Bill Doctrine

The real bills doctrine states that any bank should advance only short-term self-liquidating productive loans to business firms. Self liquidating loans are those, which are meant to finance the production, storage, transportation and distribution. Which such goods are ultimately sold, the loans are considered to liquidate themselves automatically such short-term self-liquidation productive loan passes three advantage. Firstly they possess liquidity that is why, they liquidate themselves automatically. Second since they mature in the short run and are for productive purpose there is not risk of their running into bad debts. Thirdly, being productive such loans earn income for the bank.

ii) The Shiftability Theory

H.G Mouiton who asserted that if any bank should maintain a substantial amount of assets that can be shifted into the other banks for cash without material loss incase of necessity, then there is no need to rely on maturities propounded the shifted ability theory of liquidity. According to this view, an asset to be perfectly shifted able must be immediately transferable without capital loss when the need for liquidity arises. But in general crises requires that all banks should possess such asses which can be shifted into

the central bank which is the lender of the last resort. This theory has certain elements of truth.

iii) The Anticipated Income Theory

H.V Porch developed the anticipated income theory in 1944 on The basis of the practice of extending term loans by the United State of America (USA) commercial bank of the practice of extending term loan by U.S.A commercial banks. According to this theory, regardless of the nature and character of a borrower's business, the bank or any financial institution plans the liquidation of the long term loan form the anticipated income of the borrower. A term loan is for a period exceeding one year and extending to less than five years. It is granted against the hypothecation of machinery, stock and even immovable property. The bank puts restriction on the financial activities of the borrower while granting loan. At the time of granting a loan, the bank takes into consideration not only the security but also anticipates earning of the borrower. In fact, anticipated income is the main consideration.

This theory is superior to the real bill doctrine and the shiftability theory because it fulfills these objectives of liquidity, safety and profitability. Liquidity is assured to the bank when the borrower saves and repays the loans regularly in installment. It satisfies the safety principle because the bank grants a loan not only on the basis of a good security but also on the ability of the borrower to term loan is assured of regular income. Lastly, the term loan is highly beneficial for the business community, which gets fund for medium-term.

iv) The Liabilities Management Theory

This theory was developed in The 1960’s. According to this theory there is no need for banks to grant self-liquidating loans and keep liquidity assets because they can borrow reserve money in the money market in case of need. A bank can acquire reserves by crating additional liabilities against it, form different sources. These sources include issuing of tie, certificates of deposit, borrowing form other commercial banks, borrowing form central bank, raising of capital funds by issuing shares, and ploughing back profit.

2.1.2 Forms of Liquidity

The liquid resources of a firm may be kept in various forms: cash balance in current account, reserve drawing power under a cash credit or overdraft arrangement, short term marketable securities like treasury bills, and short-term deposits with other companies called inter-corporate deposits (Chandra, 1984:112).

Here are some of the pros and cons of the forms of maintaining liquidity.

Cash balance in current account provides the highest degree of liquidity. However, the interest earned on current account balance is nil. Hence it is costly to keep cash balance in current account. Yet, no firm can conceivably do without some balances in current accounts.

Reserve drawing power under a cash credit or overdraft arrangement may appear to be an economical way of maintaining liquidity. The firm is not required to pay any interest on the unutilized portions of the cash credit or overdraft limits, yet it has a ready access to the undrawn amounts. There is, however, a catch here. If a part of the cash credit or overdraft limit, kept in reserve to meet contingencies, remains unutilized over a prolonged period of time, the bankers may reduce the cash credit or overdraft limit. This seems to be the reason why may firms draw fully on these limits, for some periods of time at least, even if it means keeping the funds virtually idle in their current accounts.

Investment in treasury bills and other short-term marketable securities earns a low rate of interest. Further, unless these are held till date of maturity the firm may incur more transaction costs. This form of liquidity very secured, but may not have much appeal to corporate firms.

Depositing money with other companies, on a short-term basis, is fairly attractive in terms of rate of return. Presently, inter-corporate deposits earn 15 to 21 percent rate of interest. Typically, these deposits are made for a period of 2 to 6 months, often with a right to recall at a month's notice. While very attractive form the point of view of rate of return, inter-corporate deposits suffer form tow disadvantages: (i) a minimum of one month's time may be required to convert them into cash, and (ii) degree of risk associated

with them is higher compared to other forms of maintaining short-term liquidity which are virtually risk free (Chandra, 1984:112).

2.1.3 Determinants of Liquidity Management

Bank needs liquidity to meet loan demands, deposit withdrawal and for maintaining cash reserve ratio as prescribed by central bank. So far the proper management of banking needs good strategy to follow. Many factors affect the liquidity of a bank. They are:

The External Factor Includes:

- Primary Interest Rate of bank: If interest rate is high cash demand is low and liquidity need is low.
- Saving and investment situation: If income and saving scale of people is high, lows liquidity. If investment in commercial field is high, high liquidity
- Growth and scheming position of the financial market: If financial market of bank is in growth and prosperity then low liquidity and it opposite, high liquidity.
- Central Bank requirement
- If the Supply and demand position of loan, saving and investment situation

The Internal Factors are:

1. Lending policy: great quantity of long term investment needs high liquidity. If short term loan policy, low liquidity.
2. Management Capacity: If management is efficient and ready to bear rise, low liquidity is needed.
3. Strategic planning and funds flow situation: Liquidity depends upon planning and strategy.

The degree of liquidity depends upon the relationship between cash, assets plus those assets, which can be quickly converted into cash. The bank should have proper strategy to invest in those assets which can be quickly converted into cash.

2.1.4 Measuring Liquidity

Liquidity measures are needed in order to estimate the likelihood of a firm being able to meet its fixed financial obligation, especially payments to creditors. In measuring the

ability of a firm to generate cash, here we are using the term "Liquidity", although some analysts would prefer the term "solvency" when the analysis is measuring the long-run survival ability of the firm.

Both managers and external observers of a corporation must frequently rely on financial reports to judge the liquidity of the firm. For example, a bank officer considering a loan request will use financial statements in an attempt to measure a corporation's financial liquidity to determine the likelihood to the firm being able to repay the loan when it comes due. Since bank loans are generally for short periods of time, bank officer will primarily be interested in the firm's short-term survival prospects. But even a long-term investor, such as a bond buyer or an investor in survive in the short run for it to prosper in the long run. Thus, the measures of financial liquidity of a corporation are important information inputs for all persons evaluating the financial affairs of a corporation.

2.1.5 Technique of Liquidity Management

i. Traditional Model

According to traditional model of liquidity management, it is related to strong liquidity in bank investment or to use control background to use as temporary sources of fund. As this idea is to swift liquid assets into cash and to meet the needs of bank for increased loans demand or deposit to withdrawal is also called as shiftability or assets conversion approach. This approach of liquidity is based on safety at the expresses of profitability; under this approach storing of liquidity can be classified into four types.

- **Primary Reserve**

The primary reserve is that part of bank, cash or reserve which can be arranged more than the required statutory such as Cash Reserve Ratio (CCR) or Statutory Liquidity Ratio (SLR). Here the excess statuary reserve can be used for working reserve to avoid impressing cash storage.

- **Secondary Reserve**

It includes storing of liquidity in short term government securities such as insuring in treasury bills. It also includes high quality securities with very low default risk.

- **Territory Reserve**

It is arranged to provide liquidity protection against long term requirement which is related to increase loan demand or reduce deposit inflow government securities with maturity period of one or two year are includes in it.

- **Investment Reserve**

The security with maturity period of more than 2 years is included on investment reserve.

ii. Liquidity Management Model

Under the liquidity management, any institution may generate liquidity by managing its profitability. Although traditional model shows and important part of cash management, it doesn't help to show the appropriate utilization of fund. Therefore several models have been developed to determine cash balance and to maintain profit position. One of the techniques of mixing the cash balance with loan investment is Baumol Model which is based on the high low cash balance. The following models are described as follows:

- **Baumol Model**

According to this model, minimizing the opportunity cost of holding cash and maximizing the return on the fund, the cash balance should be maintained at A minimum level and the funds not required for immediate use, be invested. Baumol model identifies the cash maintenance as analogous to inventory maintenance and demonstrates that the model of economic order quantity.

Baumol model is based on the assumption that:

i. Cash is used to constant rate
ii. The periodic cash requirement is more or less save
iii. There are some cost such as transaction cost that decrease cash balance

Hence Baumol has conducted that minimum size is the amount of cash that is enough to start with at the beginning of a period to meet the cash need of that period transaction.

- **Miller Mode**

Due to high opportunity cost, all liquidity need should not be maintained in cash that bears no returns. It is necessary to maintain cash balance for transition and compensation

balance requirement but the liquidity need for the other purpose doesn't need to be in cash. Therefore any financial institution can take advantage by appropriately balancing the available funds between cash and loan investment. The size of cash needs depends on the pattern & degree of regulating inflow and outflows. Hence, Miller had developed a model known as Miller Model, which takes into account the realistic pattern of cash flow and prescribes which and how much to transfer format to investment account vice-versa. This model is based on the assumption that the daily net cash flows receipt minus payments is random is size as well as in the matter of negative or positive flow. Hence this model set to rang of high and low limits within which cash balance is allowed to fluctuate and set the target cash balance between these two limits.

2.1.6 Importance of Liquidity

Commercial banks are business firm like all other business firms which attempt to earn profit as high as possible. The bank earns its profit primarily in the form of interest on its earning assets, loan and investment in maximizing profit, it seems reasonable that bank should invest as much as possible it could result into great danger if it could not repay its depositors as demand liquidity is important too, to gain outside confidence and for bank's own survival through difficulties and day to day transaction. The main importance of liquidity is explained below:

- **To Meet the Demand do Depositors**

The bank must safe guard its position by maintaining sufficient liquidity. The bank should be able to make prompt payment of cash as demanded by its depositors otherwise will looses its customer's confidence.

- **To Meet the Loan Demand**

In order to increase profitability, bank should maintain adequate liquidity to meet demand or borrowers. In case the demand for loan by excellent borrowers could be fulfilled, the bank may loose its customers who are the sources of its high profits.

♦ **To Maintain Cash Reserve Ratio**

Each bank must follow the directive of the central bank; otherwise the very bank may be punished. The bank can maintain minimum cash reserve ratio only if it is in good liquidity position.

- **To Maintain Administrative Expenses**

A bank having good liquidity position holds adequate cash enough for its internal operation or says administrative expenses, the bank should satisfy its personnel by allowing attractive salary, and bonus etc and it will be able to meet other expenses relating to its management affairs.

♦ **To Maintain Contingencies**

Bank should maintain certain position of liquidity for contingencies which may be required to save the bank form future risk such as fire, stickers' competitors etc and other economic instabilities.

♦ **Expansion and Growth**

Nature and environment is changing continuously. Bank should adopt the environmental factors for continuous existence. For continuous survival, bank should expend amount on expand and growth program for which liquidity is needed. In this point of view, also liquidity is the most important factor of modern bankers.

Thus form above explanation researcher can conclude that maintaining adequate liquidity is fundamental function of bank. Good liquidity position of any bank helps to earn its goodwill.

2.1.7 Demand and Supply of Bank Liquidity

Bank should maintain sufficient level of liquidity in order to meet immediate nature liabilities and to satisfy the depositors claim for cash when demanded. To maintain the sufficient amount, the bank should observe demand and supply of bank liquidity.

Demand of Bank Liquidity

In the bank business, liquidity is demanded for following purpose:

- **To Meet Depositors Claim**

In order to operate banking business, sufficient cash balance or sufficient level of liquid assets must be maintained by all bankers. The requirement of maintaining cash balance as liquid assets depends upon amount of depositors.

- **To Meet Cash Reserve Ratio (CRR)**

Each commercial bank must maintain satisfactory minimum cash reserve ratio as prescribed by central bank because the directive of central bank must be followed by each commercial bank. At present in Nepal each commercial bank must maintain at least 2% cash in hand in their safety valve 7% of total value of current and saving account and 4.5% of total fixed deposit must be maintain as cash reserve with Nepal Rastra Bank. When cash reserve ratio is increased by the central bank, the demand for liquidity is also simultaneously increased.

- **To Disburse Loans and Advances**

Commercial banks should earn profit for survival .So they must advance loan against interest. After maintaining minimum liquidity balance (cash reserve ratio, and statutory liquidity ratio), bank liquidity also demanded by the borrowers. Hence banks need to maintain certain level of liquidity to approve loan proposal.

- **Operating Expenses and Taxes**

It is the expenses incurred selling banking services. It also includes taxes. Banks need certain liquidity to meet administration expenses such as payment for salary, rent stationery, telephone, electricity, taxes etc. Bank should control the administration expenses to minimize the level of liquidity and maximize the investment.

- To meet off balance sheet liabilities like Letter of Credit (L/C) outstanding, guarantee outstanding, forward contact etc.
- To meet contingencies like priority sector lending

- Payment of interest, commissions, dividends

Supply of Bank Liquidity

The supply of liquidity of the banks will arise from the following headings of its assets and liabilities:

- **Cash Balance**

The main supply of liquid of a bank comes from cash balance held by it. So cash balance is the first source of liquidity. Cash balance is also called the first line of defense of bank

- **Balance with Other Banks**

The commercial bank should maintain current account with local and foreign banks for transaction purpose. The banks may maintain more balance with the central bank in excess of required cash reserve ratio will be the source of liquidity.

- **Money of Call and Short Notice**

Bank utilize some portion of fund in inter bank call money or overnight placement of fund or advancing for very short period. These funds can be called back with short notice. So it is called as second line of defense of liquidity.

- **Public Deposits**

The main source of supply of liquidity is the deposit received from different individuals and institutional deposition. This is the most important source of bank liquidity because majority of bank fund is collected through this source. The successful operation and existence of a commercial bank depends upon the proper and profitable mobilization of deposit.

- **Loan Repayment**

Bank loans have predetermined time period of maturity and rate of interest. All loans are repaid into bank after expiry of due date. Hence repayment of loan is also known as the source of bank liquidity.

- **Reserve Funds**

Banks should open different types of reserve funds to use when needed. Reserve fund are created form the profit. Certain percentage of annual profit is appropriated to various reserve funds such as general reserve, reserve for doubtful debts, depreciation fund etc. Such reserve funds are also one to the source of bank liquidity.

- **Line of Credit From Agency Bank**

The other sources of short term capital may be available from foreign banks such as line of credit and over drafting facility allowed by different foreign banks outside the country.

- **Investment in Government (Govt.) Securities**

At the tome of surplus fund the bank may invest such funds in government securities is also good sources of investment.

2.1.8 Predicting Banks Liquidity Needs

Banks liquidity needs can be predicted from following factors:

- **Growth of Banking Habit**

Incase people don't transact their business activities like receipts and payment through cheque and credit cards the actual cash payment by the bank will decline thus resulting in the decline of liquidity based in same ratio in the other hand of all most people transact through bank then bank is included to maintain sufficient liquidity.

- **Existence of Clearing House**

If there is clearing house arrangement the bank will not need to handle all cash because settlement of going and receiving payments will be done through the debit and credit entries made in the a\c book of trading house.

- **The Type and Size of Deposit Accounts**

If the bank holds deposit accounts mainly it needs not maintain more liquidity because these deposit will be repaid only after the expiry of fixed period in case of saving account (a\c) withdrawals will be regulated and incase of current a\c deposits are withdraw periodically. The withdrawals might be expected at the time of price fluctuations.

- **Occasion and Festival Period**

When people are in festival mood like in Dashain or Tihar or when they are to celebrate certain occasions like marriage ceremonies, they need mote money at that time more liquidity needs can be predicted.

- **Nature of Advance and Facilities of Refinance**

The liquidity need of the bank depends in the credit policy of central bank of securing and refinance facility or the loans already granted by commercial banks and discounting of bills if a bank has utilized discounting business and approved loans then the central bank may provide refinancing facilities in this case bank can predict less liquidity needs.

2.2 A Brief Overview of Liquidity

Basically, liquidity gives a brief idea about the continuous cash flow management. Liquidity is the availability of cash at the time needed at a reasonable cost. The capacity of bank to exchange cash for deposit is the liquidity. It is the asset of the banks in form of cash and near about cash. Near about cash means the asset, which can be converted into cash immediately without losing the value of them. The bank's capacity to meet immediate maturing liabilities is the liquidity of banks.

Liquidity is that part of the total assets, which can be paid immediately to meet the current obligation. A commercial bank needs a high degree of liquidity in its assets. The liquidity of an asset refers to the ease and certainty with which it can be turned into cash. Banks must hold sufficient liquidity in form of cash and liquid asses such as government securities CRR in central banks. So those banks never fail to meet daily cash demand. Ensuring adequate liquidity is one of the most important task faced by the bank management. A bank is considered to be liquid if only it has ready access to immediately spendable funds at reasonable cost at the time these funds are needed. This suggests that a liquid bank has the right amount of immediately spendable funds.

The commercial banks or financial institution should keep the stock of liquid assets according to the ratio of liability of deposit fixed by the bank according to section (25) of

financial company Act 2042 (1985). The term of liquid assets represent the assets mention as follows:

- Nepalese bank notes and currencies deposited in the company.
- Deposit of the company in the bank or any other commercial banks.
- Government Bonds
- Any other assets as specified by the bank form time to time

It defines the liquid assets of the commercial banks and regarded liquid assets as cash stock of the commercial banks, short term and security, short-term business securities, the government and the treasury bills. It is clear form it that the liquid assets mean the cash and the asset, which can be converted immediately in the time of need.

All assets (real and financial) differ in degrees of liquidity. Generally, financial assets, especially bank deposit and stocks and bonds issued by major corporations tend to be highly liquid. Money is the most liquid asset because it need not be converted into any other form to be spent. Unfortunately, the most liquid assets, including money, tend to carry the lowest rate return. One measures of the cost of holding money is the income forgone by the owner who fails to convert his or her money balances into more profitable investment in real or financial assets. The rate of interest determined by the financial system is a measure of the penalty suffered by an investor for not converting into income-earning assets. Thus liquidity management is much more important than we may realize because a bank can be closed if it cannot raise enough liquidity even though technically it may still be solvent.

Present section deals about concept or findings of earlier scholars on the concerned field of the study. It helps to develop the study as link in a chain of research that is developing and emerging the knowledge about the related field.

The effort has been made in this present section to examine and review some related articles published in different economic journals, bulletins, magazines and newspapers.

A central bank is regular controller and supervisors of all banking and monetary system in any nation as such central bank in any country issue directive for maintaining liquidity of each commercial bank. The directive of a central bank of each country of the world depends upon economy and monitory situation for particular nation from time to time as such in Nepal. Nepal Rastra Bank (NRB) issue directive of maintaining liquidity to all commercial banks which does not follow its directive of maintaining required liquidity. In this contest NRB has been issuing several instructions related to criteria of measuring bank liquidity from time to time as we need of the situation of the country.

As defined in the directives effective from 2049 push 13th to 2050 Ashad 31st each commercial bank has to maintain a type of liquidity which was known as statutory ratio:

- **Statutory Liquidity Ratio**
  - Each commercial bank must incest at least 22% of its total deposit liability in Govt bond treasury bills and NRB bonds.
  - Each commercial bank must maintain at least 4% of total deposit in its treasury sand at least 18%of total deposit must credits with NRB a\c

In 1st shrawan 2050, the compulsory account investment of 22% of total deposit by each commercial bank on government bonds treasury bills NRB bonds were cancelled. According from time to time each commercial bank has to maintain cash reserve ratio of 12% of total deposit by keeping 4% of cash balance with itself and 8% with NRB.

According to Nepal Rastra Bank act of Bhadra 25th 2058, Nepalese finance company has to maintain the cash under following heading.

- Each finance company has to maintain 7% cash reserve ratio into current and saving account.
- Each finance company has to maintain cash reserve ratio of 4.5% under fixed deposit.
- Each finance company has to maintain 2% cash in hand in their safety valve

So Nepal Rastra Bank as the central bank of Nepal has issued directives of mainly of liquidity to all finance companies operating in Nepal. Nepal Rastra bank can take strong direct action against ant finance companies, which doesn't follow its directives instruction related to criteria of measuring of bank liquidity form time in accordance with the nee of situation of the country regarding the maintenance of cash.

According to NRB act, commercial bank has to maintain 10% reserve of the total deposit that was collected 4 weeks before from the general public this reserve is calculated by taking 4 week's average. From that 7% must be should be kept as statutory liquid ratio (SLR) by the commercial bank themselves in their safety vault.
If these reserves are not maintained according to the NRB act or less than require is maintained then they are fined according to section 32's sub-section 2. In this case for the first week 0.03% for the second week 0.05% and 0.1% for the third week or more shall be fined in the remaining amount. Despite several policy changes, the problem of excessive liquidity in the banking sector could not be resolved. From 3903% in 1997 the liquidity in the banking sector now stands at 4401%

In the very first month of 2055 NRB lowered the compulsory cash reserved ratio by 2% to encourage bank to reduce the spread between their interest rates on lending and deposits. As if failed to generate the desired response, NRB later directed the banks to reduce their interest on leading by 2% and deposit by 1%. NRB also changed a statutory requirement for finance companies. Of the reserve that the companies are required to maintain at 8% of their risky assets 5% must be in the form of primary reserves according to the revision. As compared to only 4% required earlier.

2.3 Review of Related Studies

2.3.1 Review of Articles/ Journals

Pradhan (2010) *"Financial Liquidity assessment and discriminate analysis"* had observed the financial ratio to judge the liquidity position of enterprise has become a conventional approach to deal with the problem. However, it does not mean to say that

the ratio analysis is not useful in assessing financial liquidity. It is useful but seems inadequate.

It may sometime produce misleading results. Moreover, the limitations of ratio analysis arise from the fact that methodology is basically unvaried. That is each ratio is examined in isolation. The combined effects of several ratios are based solely on the judgment of the financial analyst. Therefore to overcome these shortcomings of ratio analysis, it is necessary to combine different ratio into a meaningful prediction model. For that purpose the discriminate analysis has been proposed and Altman appeared to be the first person to use it in bankruptcy prediction context in this paper, an effort has been made to show how a discriminate analysis may be useful in assessing the financial liquidity position of the selected pubic useful, if not optimal result.

Amihud and Mendelson's (2011) on *"Liquidity and Assets Prices; Management Implication"* assert that the greater the liquidity of assets the greater its value. They examine the benefits and increasing liquidity, and the role of a number of financial management polices and institutional arrangements as liquidity enhancing investment. However this study was not directly related to the stock market but gives clear picture that what is liquidity why it is important in financial management decisions. They suggested in their study that firms should carry out policies which increase the liquidity of financial claims they issue, since this may lower the required return on these claims and increase its market value. Which implies that other thing being equal, a firm could increase its market value by increasing the liquidity of the claims it issues. Increasing liquidity is however costly; thus firm has to balance the benefits of increased liquidity with the costs. ***Amihud and Medelson*** suggested and observed variety of means which form can use to increase the liquidity of the claims. The observed corporate financial policies and institutional arrangement are standardization of claims, corporate borrowing, disclosure of inside information, underwriting new public issues, stock denominations listings on organized stock exchange etc.

Khatri (2012), has analyzed the ordinance pros and cons, in general speaking termed as Umbrella Act. He has expressed his disagreement in the ordinance regarding the qualification of the Board of Director's composition. The qualification set is out of the total number of directors, two thirds have to be graduates in specified disciplines-management, commerce, economics, accounting, finance, law, banking and statistics. Another requirement is five years work experience either in banking or public limited companies or in a gazette level government posts. He argues why a science graduate or someone with engineering background cannot be the director, it is not justifiable to question on the capacities of the people with these background as the in the past some successful General Manager and Directors in Nepal Industrial Development Corporation (NIDC) were engineers. He further writes that activities like project financing and asset valuation require engineers and similarly that there cannot be any reason for the position of director in banks to be graduates in some specific fields only. CEO of the "Ka" category qualification required is Master Degree in the chosen few subject and the term would be four year. The act however does not mention the renewal of the CEOs term. The Board or AGM of the institution should be decided the CEO's tenure ***(***In an article published in *New Business Age****).***

Subedi (2013) titled *"Growth in Major Commercial Banks"* has compared between the first six month of the fiscal year 2002-03 and 2003-04, which shows that there has been noticeable increase in credit outflow by the commercial banks except of Nepal Bank Ltd. (NBL) and Rastriya Banijya Bank (RBB) (the government owned banks). There has been increase in credit deposit (CD) ratios of all commercial banks except of NBL and RBB in which case it has gone down by 10.41% and 5.99% respectively. It may be because their concentration was only on recovery of the huge Non Performing Assets (NPA). However, ***Mr. Subedi*** pointed out that no matter what the size of NPA is and the circumstances are, each bank has to collect the deposit in order to create a lending and to invest in the new ventures. Except RBB all banks have increment in deposit collection.**(**article published in New Business Age**).**

2.3.2 Review of Unpublished Dissertation

Poudel (2010) has studied "*Liquidity & Investment position of joint-venture commercial banks in Nepal (with special reference to Everest Bank Ltd and Nabil Bank Ltd.)"* focused on the financial statements of both banks for five years period. On the study he found that the liquidity position of EBL is comparatively better that Nabil's. In all the parameters EBL has achieved a comparatively liquid position. However, there are some instances where EBL has maintained liquid funds more than requirement. The interest receivable ratio of EBL similar to NABIL's though it is a small bank in terms of volume of business. It is because of the poor assets quality of EBL, which in turn, hits liquidity position of the bank.

Subedi (2011*)* has studied "A comparative study of financial performance between Himalayna Bank Ltd and Everest Bank Ltd." of the period form 2005 to 2010 as outlined his major findings and conclusions as follows:

The mean of total loans and advances to total saving deposits ratio of EBL is greater than that of HBL and the coefficient of variation between the ratios of HBL is less than EBL. It means at the variability of the ratios of HBL is more uniform than EBL. According to analysis, it is found that EBL is more employing its saving deposits in term of loans and advances than that of HBL. So, loans and advances to total saving deposit ratio appear better in EBL than HBL.

The mean ratio of total investment to total deposits of EBL is significantly greater then that of HBL but the coefficient of variation between the ratios of HBL is less than EBL. It means that the variability of the ratios of HBL is more consistent than that of EBL. According to analysis, it is found that EBL is more successful in utilizing its resources on investment. However, he failed to give his overall conclusion regarding the superiority of the financial performance of these tow banks during the period of his study (2005 to 2010). He has also put several recommendations out of which few important recommendations are outlined here. The liquidity of a bank may be affected by external as well as internal factors such as the interest rates, supply and demand position of loans,

saving to investment situation, central banks requirement, the growth or slackening tending policies management capability. HBL has maintained the ratio of cash and bank balances total deposit considerably lower than that of EBL. So HBL is recommended to increase cash and bank balances to meet loan demand.

Shrestha (2012) has studied "Investment Practice of Joint Venture Banks in Nepal with special reference to Nepal Arab bank Ltd, Standard Chartered Bank Ltd and Nepal SBI Bank Ltd" has figured out the problem, conclusion and recommendation as follows:

Commercial banks are more emphasized in making loan on short-term basis against movable merchandise. Commercial banks have a lot of deposits but very little investment opportunity. They are even discouraging people by offering very low interest rate and minimum threshold balances. Commercial banks invest their funds in limited areas to achieve higher amount of profit. This regarded as a very risky step, which may lead to lose profit as well as principle. The credit extended by commercial banks to agricultural and industrial sector is not satisfactory to meet the growing need.

He has concluded that since liquidity position of NABIL and SCBNL have not found satisfactory, it is, therefore, suggested them to improve cash and bank balance to meet current obligations. SCBNL's loans and advances to total deposits ratio is lower at all; it is recommended to follow liberal policy for enhancement of fund mobilization. It is recommended to SBIBL that it has to enhance off balance sheet transactions, diversifying their investments, open new branches, play merchant banking role and invest their risky assets and shareholder's fund to gain higher profit margin. NABIL and SCBNL are recommended to increase cash and balances to meet current obligations and loan demand.

Karki (2012*)* has studied, "An analysis of Deposit Mobilization of RBB, Lahan branch Siraha District, Nepal" following relevant objectives:

- How far the interest rates of deposit and credit have positive relationship with deposit collection and credit extending?
- How far the deposit of RBB, Lahan branch has efficiently mobilized?

He further concluded that the interest rate has not influenced the deposit collection as well as lending sector of the banks. And due to the lengthy lending, the credit experience

is unsatisfactory; the credit ratio has also increased by the nominal percentage. So, the deposit was not efficiently utilized. Analysis has been made for ten years period (1989-2000) using Karl Pearson's formula**. .**

Joshi (2012) has studied "A Study of Financial Performance of Commercial Banks" has analyzed different ratio of Nepal bank Ltd and Rastrya Banijya Bank for the period of five years till fiscal year 2010/11. The researcher concludes that the liquidity position of commercial banks is sound. Their debt equity ratio is higher and debt on solvency to debt equity ratio is under doubt. Regarding debt solvency to debt equity ratio of local commercial banks is higher than joint venture banks. Conservation credit policy is following but commercial banks for asset utilization for earning purpose is two third of the total assets. The main source of income for those banks is interest from loans and advances. Dividend layout ratio of commercial bank should be determined which should be kept in mind of the shareholder's expectations and their growth requirements of the banks.

Shivakoti (2013) has studied, **"Investment Policy of Commercial Banks of Nepal",** has made an attempt to know and understand fund mobilization and investment policy of EBL, Nabil and BOK. The thesis work was performed with an objective of analyzing the trend of deposit utilization towards total investment and loan & advances and also to evaluate the growth ratios with other financial variables.

From the study, she has concluded the following findings are: the liquidity position of EBL is comparatively better than Nabil and BOK, the total investment of EBL is in between in compared to other two banks, total interest earned to total outside assets of EBL is lowest of all. EBL, the total investment of EBL is in between in compared to other two banks, total interest earned to total outside assets of EBL is lowest of all. EBL has higher capital risk ratio but average credit risk ratio compared to Nabil and BOK.

On the basis of the findings, she has recommended EBL to mobilize excess idle cash and bank balance in some profitable and productive sector. She also emphasized on investing more on shares and debentures as it encourages financial and economic development of

the country. She has suggested the bank to make continuous efforts to explore new, competitive high yielding investment opportunity to optimize their investment portfolio. She has also recommended bank to adopt innovative approach to marketing. In the light of growing competition in the banking sectors, the business of bank should be customer oriented. The bank should develop an innovative approach to bank marketing and formulate new strategies of serving customers in a more convenient and satisfactory way by optimally utilizing the modern technology and offering new facilities to the customers at competitive prices.

2.5 Research Gap

Nevertheless, the analysis performed and conclusion drawn regarding the Liquidity Position of Nepalese Commercial Banks; there is considerable place for arguing on its accuracy and reliability. There are few research gap and limitations which weaken the conclusion e.g. inadequate data, time and other variable. This thesis simply fulfills the requirement of Masters in Business Studies (M.B.S.) 2nd year program. So this study has faced gap in research by following factors:

- There are many factors that affect liquidity of bank, international liquidity and valuation of firm, service quality performance, customers' satisfaction, stakeholders' support, government rating, etc however only related factor will be taken into consideration in this study.
- In reviewing previous researches, I have found that they have not discussed much about the financial sectors decentralization towards the rural areas, where there is real need in those areas financial activities should be undertaken which I had referred here in my study.
- By undertaking the policy of decentralization of financial sectors, then there will be much more healthy competition between existing financial institutions than in the present situation.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the carious sequential steps adapted by researchers studying a problem with certain objectives in view.

The main objective of this phase presents the necessary data and information regarding the liquidity management to evaluate and present them in a systematic way. The study is more analytical and empirical. It covers quantitative methodology using financial and statistical tools. The study is mainly based on the secondary data gathered from the annual report of the commercial banks, especially from profit and loss A\C, balance sheet and other publication made by the bank.

3.2 Research Design

The research design used is descriptive. As the study focuses to evaluate the liquidity position; essential data have been evaluated under this study. This study is closely related with the various cash flows analysis with respect to the commercial banks; these information and data are presented in analytical methods. But the qualitative aspects of the research such as effectiveness of liquidity fluency of the various commercial banks have been demonstrated. As well as problems of formulating and implementing the demands of cash flows of various commercial banks have been evaluated under the different basis.

3.3 Population and Sample

Population covers the whole or total observations that have selected for the study and sample is the part of population which represents population with regards to the study.

Commercial banks specially, 6 joint ventures are taken as population. Though 6 joint ventures banks are in operation throughout the country, only 3 joint venture banks i.e. NABIL bank, Standard Chartered Bank and Everest Bank are taken as sample on the basis of good financial performance.

The total population and sample and sample percentage are shown below;

S.N.	Population	Sample	Sample %
1.	NABIL Bank Ltd.	NABIL Bank Ltd.	16.33
2.	Standard Chartered Bank Ltd.	Standard Chartered Bank Ltd.	16.33
3.	Everest Bank Ltd.	Everest Bank Ltd.	16.34
4.	SBI Bank Ltd.		
5.	Himalayan Bank Ltd.		
6.	Nepal Bangladesh Bank Ltd		
Total	6	3	50%

3.4 Period Covered

Liquidity analysis of commercial banks in Nepal has been evaluated under yearly basis as according the five yearly balance sheet and income statements indicated form 2007/08 to 2011/12.

3.5 Nature and Sources of Data

Mainly the study is conducted on the basis of secondary data to fulfill the objectives in this paper. The data selecting to liquidity position of bank are obtained with help of concerned bank, balance sheet, income statements. The supplementary data and performance obtained form unpublished official records concerned banks booklets, journals, similar precious dissertations and other organization like security exchange center and Nepal Rastra Bank. Sources of data are as follows:

- **Secondary Data**

The sources of secondary data are those which have already been published, which have been collected by other people. Here the secondary data include the balance sheets of the

concerned bank covering fiscal year 2002/03 to 2010/11, literature in college, journal published by various institutionbooklets, magazines and previous dissertation related to the subject matter.

3.6 Method of Analysis

Various financial analysis tools have been used in this study. The analysis of data will be done according to pattern of data available. The relationship between different figures related to study topic will be drawn out using ratio analysis. The carious calculated results are then tabulated under different heading which are later on compared with each other to interpret the result. The details of calculation that cannot be shown in the body part are presented in the appendices at the end.

3.7 Analysis of Tools & Techniques

On the basis of historical data both financial and statistical tools are used to analyze different variables.

3.7.1 Financial Analysis Tools

Financial ratios are the basic tools of financial analysis. The financial problems of a bank can be ascertained by examining the behavior of these ratios. Liquidity ratios measure the bank's ability to pay current debts while profitability ratios measure the bank's overall efficiency of operation. Similarly turnover ratio measures the utilization of bank's resources. These financial ratios help us to find the symptoms of problems. The cause of any problem may be determined only after locating the symptoms. As far as our concern, the objective of the ratio analysis is to determine whether or liquidity position, profitability and risk position of the banks.

3.7.1.1 Liquidity Ratio

The liquidity of a business firm is measured by its ability to satisfy its short-term obligation as they come due. Liquidity ratios measure the bank's ability to meet its maturing short-term obligations. It is a well known fact that assets vary with respect to the time and effort required to liquidate them. Liquidity thus refers to 'nearness to cash'.

The nearer an investment is to cash, the lower is its rate of return. The large size of cash is associated with high liquidity and low profitability. The practice of holding a large size of cash is an expensive affair. With too much liquidity the possibility of its misuse becomes high. On the other hand, too little liquidity may lead to server cash problems which can result in inability to depositor's demand. Banks usually maintain liquidity as a means of meeting short-term expected and unexpected requirements for net cash outlays, such as unanticipated investment opportunities and unanticipated expenses.

i) Current Ratio

This ratio shows the relation between current assets and current liabilities. The current ratio is calculated by dividing current assets by current liabilities. The objective of this ratio is to measure the ability of the firm to meet its short term obligation.

Current assets involve cash and Bank balance, money at call or short notice, loans and advances, overdrafts, bill purchased and discounted investment on government securities and other interest receivables and miscellaneous current assets. Similarly, current liabilities involve deposit and other short term loans, tax provision, dividend payable, bills payable, staffs bonus and sundry liabilities. The standard ratio is 2:1 but accurate standard depends upon circumstances and nature of business. Current ratio can be measured as,

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

ii) Cash and Bank Balance to Current Assets Ratio

This ratio measures the percentages of liquid assets i.e. cash and Bank balance among the current assets of a firm. Higher ratio shows the higher capacity of firms to meet the cash demand.

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

Hence, cash and banks balance includes cash in hand, foreign cash and foreign banks.

iii. Liquid Fund to Current Liabilities Ratio

Since cash and bank balances is first line of defenses , measuring its liquidity ratio depending on liquid fund is more significant .Liquid fund comprises of those assets, which can be converted into cash within short period without any decline in their value . Cash in hand, balance with NRB, balance with other financial institution, balance with domestic bank balance held abroad, call money are included in calculating the liquid fund. This ratio measures banks ability to discharge its current liability in an adverse condition without undergoing its liquidity risk.

$$\text{Liquid Fund to Current Liabilities Ratio} = \frac{\text{Liquid Fund}}{\text{Current Liabilities}}$$

iv. Liquid Fund to Total Deposit Ratio

The deposit constitutes the major parts of the bank liability. Flow of this liability is always certain in the banks liquidity management. Hence, the ratio of liquid fund to total deposits indicates the banks strength to meet uncertain outflow of deposit.

$$\text{Liquid Fund to Total Deposit Ratio} = \frac{\text{Liquid Fund}}{\text{Total Deposit}}$$

v) Investment on Government Securities to Current Asset Ratio

This ratio is used to find the percentage of current assets invested on government securities, treasury bills and development bonds. This ratio can be calculated dividing the amount of investment on government securities by the total amount of current assets and can be stated as follows,

$$\text{Investment of Government Securities to Current Asset Ratio} = \frac{\text{Investment on Government Securities}}{\text{Current Assets}}$$

vi) Loan and Advances to Current Assets Ratio

Bank's major earning source is loan. Loans are also taken as current assets as most of them are maturing within a period of one year and represent short term disbursement. A Bank should not allocate all funds in loan and advances so it must maintain in an appropriate level. In order to calculate the proportion of loan and advances to total current assets, the ratio is obtained by dividing loan and advances by current assets.

$$\text{Loan \& Advances to Current Assets Ratio} = \frac{\text{Total Loan \& Advances}}{\text{Current Assets}}$$

vii. Saving Deposit to Total Deposit Ratio

Saving deposit is deposited by public in a bank with an explicit objective of increasing their wealth. So interest rate plays a significant role. In other deposits like fixed and current deposits are not interests sensitive. Fixed deposits have fixed term to maturity and fluctuation in interest rate does not allow its movement in short-term. Current deposit does not carry an interest rate. So, it is not sensitive towards interest rate. Saving deposit to total deposit ratio measure the banks ability to meet its sudden outflow of saving deposits due to change in interest rate. This ratio can be calculated by dividing the amount of saving deposit by the amount of total deposit which is given as under:

$$\text{Saving Deposit to Total Deposit Ratio} = \frac{\text{Saving Deposit}}{\text{Total Deposit}}$$

viii) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are the most liquid current assets of a firm, cash and bank balance to total deposit ratio measures the percentage of most liquid assets to pay depositors immediately. This ratio is computed dividing the amount of cash and bank balance by the total deposits. It can be presented as,

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

Where, total deposits consist of deposits on current account; saving account; fixed account, money at call and other deposits.

ix) Investment on Government Securities to Total Deposit Ratio

This ratio is used to find the percentage of total deposit invested on government securities, treasury bills and development bonds. This ratio can be calculated dividing the amount of investment on government securities by the total amount of total deposit and can be stated as follows,

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

3.7.1.2 Turnover Ratio

These ratios indicate the efficiency with which a bank employs its resources. Turnover ratios involve comparisons between the level of loan and advances and various deposits. These ratios state that there should be a kind of balance between deposit and loan and advances. This study simply reviews the behaviors of turnover ratios over the period of time so as to see whether or not there has been efficiency utilization of various deposits.

i) Total Investment to Total Deposit Ratio

Investment is one of the major sources of earning money. This ratio includes how properly firms' deposits have been invested on government securities and shares and debentures of other companies. This ratio can be computed diving total amount of investment by total amount deposit collection, which can be shown as;

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

ii) Loan and Advances to Total Deposit Ratio

This ratio is calculated to find out how successfully the selected banks and finance companies are utilizing their total collections/deposits on loan and advances for the purpose of earning profit.

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

iii) Loan and Advances to Saving Deposit Ratio

Bank's major earning source is loan. Loans are also taken as saving deposit as most of them are maturing within a period of one year and represent short term disbursement. A Bank should not allocate all funds in loan and advances so it must maintain in an appropriate level. In order to calculate the proportion of loan and advances to saving deposit, the ratio is obtained by dividing loan and advances by saving deposit.

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

iv) Total Investment to Saving Deposit Ratio

Investment is one of the major sources of earning money. This ratio includes how properly firms' saving deposits have been invested on government securities and shares and debentures of other companies. This ratio can be computed diving total amount of investment by total amount saving deposit collection, which can be shown as;

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

3.7.1.3 Profitability Raito

In every bank profitability is major concern. Profit is the objective of all the policies framed and decisions taken by management. These ratios enable one to judge the overall performance of the corporation. Here, we analysis interest income to interest expenses ratio, interest earned to working fund ratio, Interest paid to working fund ratio, Net profit to working fund ratio, Net profit to total deposit ratio.

i) Total Interest Earned to Interest Expenses

This ratio shows the relationship between interests earned amount and interest expenses borrowed by the Bank. Total interest earned is that amount which is earned investing in different sectors by the Bank in an accounting year. Whereas, interest expenses is that amount which is expenses in different sectors by the Bank in an accounting year. This ratio is calculated as follows;

$$\text{Total Interest Earned to Interest Expenses} = \frac{\text{Total Interest Earned}}{\text{Interest Expenses}}$$

ii) Return on Loan and Advances Ratio

Return on loan and advances ratio shows how efficiency of the Banks and finance companies have utilized their resources to earn good return from provided loan and advances. This ratio is computed to divide net profit/loss by the total amount of loan and advances. It can be mentioned as;

$$\text{Return on Loan \& Advances Ratio} = \frac{\text{Net Profit or Loss}}{\text{Total Loan \& Advances}}$$

iii) Return on Total Assets

This ratio establishes the relationship between net profit and total assets. This ratio is also called 'profit to assets ratio'. It is calculated dividing return on net profit/loss by total working fund and can expressed as;

$$\text{Return on Assets} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

iv. Net Profit to Total Deposit Ratio

Net Profit to total deposit ratio reflects the extent to which the banks are success to mobilize deposit to earn profit. Higher ratio is preferable. We have,

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

3.7.2 Statistical Analysis Tools

The following statistical tools are specifically used in the study.

3.7.2.1 Trend Analysis

Trend analysis has been adapted to measures the trend behaviors of the banks. The tools that are used to show grandly increase or decrease of variables over a period of time is known as trend analysis. With the help of trend analysis the tendency of variables over the period can be seen clearly.

For any given value of independent variable x, the estimate value of y denoted by y_c given is

$Y_c = a + bx$

a = y intercept or value of y when x = 0

b = slope of the trend line or amount of change that comes in y for a unit change in x

3.7.2.2 Mean or Average

The average value is a single value within the range of the data that is used to represent all the values in the series. Since an average is somewhere with in the range of data, it is also called a measure of central value. Since an average represent the entire data, its value lies somewhat in between the two extremes i.e. the largest and the smallest items there are various types of average. Among them, we take arithmetic mean for measuring average. It is so popular that the word Mean or Average alone without qualification is implied to denote these particular types of average value is obtained by adding together all the terms and by dividing this total by the number of items. The formula is given below:

$$\overline{X} = \frac{\sum X}{N}$$

Where,

$\overline{X}$ = Arithmetic Average

$\sum X$ = Summation for total value of the variables

N = Numbers of items

3.7.2.3 Standard Deviation

The standard deviation measures the absolute dispersion. It is said that higher the value of standard deviation the higher the variability and vice versa.

The formulas to calculate the Standard Deviation are given as follows:

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

Where,

σ = Standard Deviation

$\sum d^2$ = Sum of the squares of the deviations measured form the arithmetic average

N = Number of Items

The standard deviation calculated in the above formula gives an absolute measure of dispersion. Hence, where the mean value of the variables is not equal, it is not appropriate to compare two pairs of variables based in Standard Deviation only.

3.7.2.4 Coefficient of Variation

The coefficient of variation is the corresponding relative measure of dispersion comparable across distribution, which is defined as the ration of the standard deviation to the mean expressed in resulting percentage. It is used in such problem where we want to compare the variation is greater is said to be more variable or conversely less consistent, less uniform, less stable or less homogeneous. On the other hand , the series for which co-efficient of variation is less is said to be less variable or more consistent more uniform, more sable or more homogeneous The coefficient of variation measures the relative measures of dispersion, hence capable to compare two variables independently in terms of their variability.

$$\text{Coefficient of variation} = \frac{\text{Standard Deviation}}{Mean} \times 100\%$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}}$$ Where,

C.V = Co-efficient of variation

σ = Standard deviation

$\bar{X}$ = Mean / or average

3.7.2.5 Measures of Correlation

We examine the relation between the various variables. The correlation between the different variables of a bank is compared to measure the performance of these banks. The correlation coefficient between two variables describes the degree of relationship between those two variables. The reliability of the value of Coefficient of Correlation is measured by probable error.

Correlation refers to the degree of relationship between two variables. Thus, measures of correlation calculate the mathematical relationship between two variables. "The measures of correlation called the correlation coefficient or correlation index summarizes in one figure the direction and degree of correlation" *(Gupta, 1989:169).*

The Karl Pearson Coefficient of Correlation (r) = $\frac{\sum XY}{N\sigma x \sigma y}$

Where,

$X = \left(X - \overline{X}\right)$

$Y = \left(Y - \overline{Y}\right)$

σ_x = Standard Deviation of Series x

σ_y = Standard Deviation of series y

N = No. of pairs of Observation

Probable Error of r (P.Er.) = $0.6745\frac{1-r^2}{\sqrt{N}}$

The Karl Pearson Coefficient of Correlation (r) always falls between -1 to +1. The value of correlation in minus signifies the negative correlation and in plus signifies the positive correlation. As the value of correlation coefficient reaches near to the value of zero, it is said there is no significant relationship between the variables.

The Coefficient of Correlation shall be interpreted based on probable error (P.E.r). If the value of correlation coefficient is greater than 6 times the value of probable error, the correlation coefficient is deemed as significant and reliable. If the value of correlation coefficient is less than probable error, the correlation coefficient is said to be insignificant and there is no evidence of correlation.

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

To achieve the objective set in chapter, data are presented and analyzed in this chapter. On the whole, this chapter is related to quantity analysis of various ratios.

This chapter is also called the central nervous system, which helps to provide conclusion after detailed analysis, so that proper recommendation can be given at the end of the study. The gist of the research work presents in the form of major findings, vital issues and recommendation in the fifth chapter. In this way this chapter makes proper linkage and associates with every chapter.

On regarding mathematical presentation part this chapter presents the various financial ratios that affect performance of the banks. These ratios are the sub-indicator of financial position of a company that compare with the help of statistical tool via trend analysis, mean standard deviation co-efficient of variation and co-relation.

4.1 Financial Ratio

Financial ratios are presented as follows:

4.1.1 Liquidity Ratio

i. Current Ratio

Current ratio is one of the most widely used measures of liquidity. It measures the degree to which current assets cover current liability. A higher ratio indicates greater assurance of ability to pay current liability. A low ratio indicates that the bank may not be able to meet short-term obligation. A high ratio indicates excessive current assets lending to under utilization of the bank's resources. Whether a current ratio is high or low is difficult to determine. For this the financial analyst has to consider the bank past ratios and /or the ratios of similar bank.

The current assets include cash and bank balance, cheques in hand, balance with NRB, money at call and short notice, investment in government securities, bills purchased and

discounted, loans and advances and other current assets. Similarly, current liability includes borrowing form other banks, deposits, bills payable and other current liabilities. We have,

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

The current ratios of NABIL, SCBNL and EBL during the study period are presented in the table below.

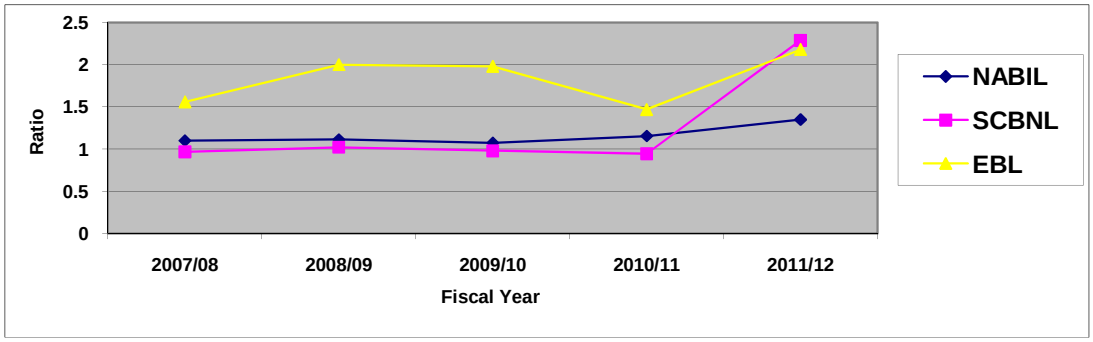
Table No. 4.1
Current Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	1.099	1.113	1.0732	1.155	1.35	**1.16**	**0.1308**	**11.27%**
SCBNL	0.9698	1.0226	0.981	0.946	2.29	**1.24**	**0.5859**	**47.25%**
EBL	1.56	2.00	1.98	1.47	2.18	**1.84**	**0.3088**	**16.78%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure presents the current ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.1
Current Ratio



Sources: Table no 4.1

The table and graph show the current ratios of NABIL, SCBNL and EBL comparatively. The ratio has been ranged form 1.099 to 1.35 of NABIL in 2007/08 and 2011/12. The ratio of NABIL increased constantly up to 2008/09 and then decreased in one year and

again increasing during the study period. But the ratio of SCBNL and EBL are fluctuated trend till the last year during the study period.

Measuring the current ratio of all three commercials banks on an average, all seems to meet its standard level (i.e. 2:1) but somehow SCBNL do not seem to be able to meet the standard (i.e. 1). But in year 2011/12 it was able to meet the standard. The current ratio of EBL is highest i.e. 1.84 and followed by SCBNL and NABIL i.e. 1.24 and 1.16 respectively. This implies low level of liquidity ratio. But conventional measure of liquidity is not applicable in banking business. Banking business holds big portion of deposits as a core deposits (the minimum level of deposits which the commercial banks hold at all the times) and deposits remain all the time through out the year. This core deposits forms the fixed liabilities of the bank though it is current in nature.

Where as measuring the total risk, EBL bank has the higher risk factor than the other banks. In one sense the chance of risk fluctuation is higher with EBL bank where as NABIL and SCBNL has lower chance of facing risk. From the C.V analysis also NABIL seems more consistence than SCBNL and EBL.

ii. Cash and Bank Balance to Current Assets Ratio

Cash and bank balance is said to be the first line of defense of every bank. This ratio shows the bank's liquidity capacity in the basis of cash and bank balance that is the most liquid assets. High ratio indicates the bank's ability to meet the daily cash requirements of their customer deposits and vice versa. But the high ratio is not preferred, as the bank has to pay more interest in deposit and will increase the cost of fund. Lower ratio is also very dangerous as the bank may not be able to make the payment against the cheuqes presented by the customers. Therefore, bank has to balance the cash and bank balance to current assets ratio in such a manner that it should have the adequate cash for the customer's demand against deposit when required, and less interest is required to be paid against the cash deposit. We have,

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

Cash and bank balance to current assets ratios of NABIL SCBNL and EBL during the study period are presented in table below.

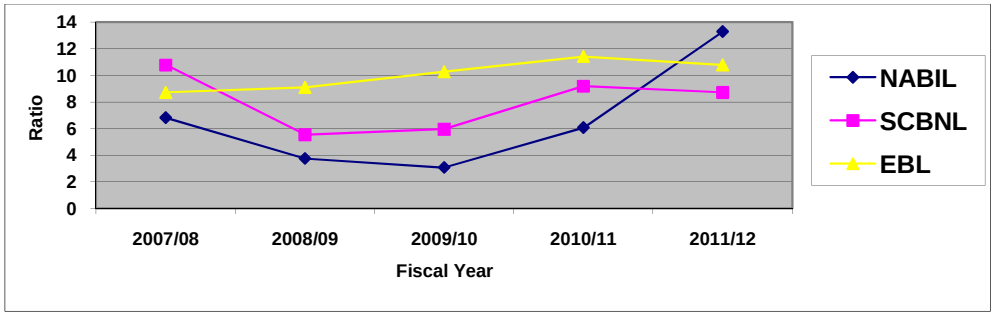
Table No. 4.2
Cash and Bank Balance to Current Assets Ratio

Banks	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	6.81	3.74	3.07	6.06	13.27	**6.59**	**5.05**	**76.60%**
SCBNL	10.76	5.53	5.94	9.18	8.71	**8.02**	**2.88**	**35.95%**
EBL	8.70	9.08	10.25	11.40	10.77	**10.04**	**1.04**	**10.32%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure presents the cash and bank balance to current assets ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.2
Cash and Bank Balance to Current Assets Ratio



Sources: Table no 4.2

The table and graph show the cash and bank balance to current assets ratios of three banks have fluctuated between 3.07 of NABIL to 13.27 of NABIL. In case NABIL, highest ratio is 13.27 in year 2011/12 and lowest ratio are 3.07 in year 2009/10. Similarly, the highest ratios of SCBNL and EBL have 10.76 in year 2007/08 and 10.77 in year 2011/12 and lowest ratios are 5.53 in year 2008/09 and 8.70 in year 2007/08. Measuring the cash and bank balance to current assets ratios on average, NABIL has low

mean ratio than other. Though this ratio is frequently used in assessing short-term financial liquidity, it should not be consider perfect measure. A low cash and bank balance may indicate extraordinary managerial skill rather than reflect financial weaknesses.

In the comparative study, the CV of NABIL is 76.60% and the CV of SCBNL is 35.95% and EBL has 10.32% respectively. It shows the cash and bank balance to current ratio of EBL is more consistence than the other.

iii. Liquid Fund to Current Liabilities Ratio

Since cash and bank balances are first line of defenses, measuring its liquidity ratio depending on liquid fund is more significant. Liquid fund comprises of those assets, which can be converted into cash within short period without any decline in their value. Cash in hand, balance with NRB, balance with other financial institution, balance with domestic bank balance held abroad, call money are included in calculating the liquid fund. This ratio measures banks ability to discharge its current liability in an adverse condition without undergoing its liquidity risk.

$$\text{Liquid Fund to Current Liabilities Ratio} = \frac{\text{Liquid Fund}}{\text{Current Liabilities}}$$

Liquid fund to current liabilities ratios of NABIL SCBNL and EBL during the study period are presented in table below.

Table No. 4.3
Liquid Fund to Current Liabilities Ratio

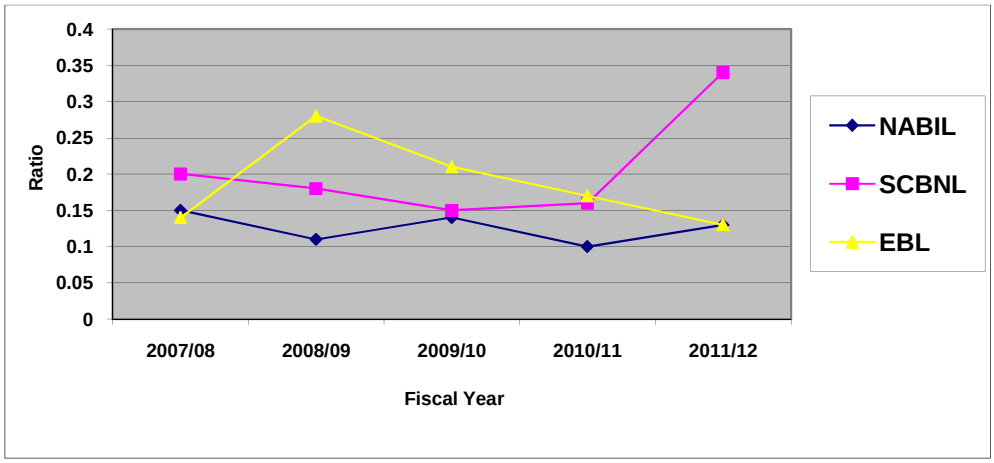
Banks	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	0.15	0.11	0.14	0.10	0.13	**0.13**	**0.02**	**15.38%**
SCBNL	0.20	0.18	0.15	0.16	0.34	**0.21**	**0.09**	**42.85%**
EBL	0.14	0.28	0.21	0.17	0.13	**0.19**	**0.06**	**31.58%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the liquid fund to current liabilities ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.3

Liquid Fund to Current Liabilities Ratio



Sources: Table no 4.3

The table and graph shows the liquid fund to current liabilities ratios of three banks ranged from 0.10 of NABIL in year 2010/11 to 0.34 of SCBNL in year 2011/12 respectively. Measuring the ratio of all three commercial banks on an average, SCBNL has the highest range i.e. 0.21. This means SCBNL can better serve the unanticipated demand of current liability than other two commercial banks. NABIL has the lowest range i.e. 0.13. This decreased has caused due to high degree of increase in investment.

According to the C.V analysis NABIL seems highest consistency in its performance. It has lower chance of facing the risk. But SCBNL has the lesser consistency. It has higher level of risk factor for evaluating the total risk as well as its risk per unit also tends to be higher than other commercial banks.

iv. Liquid Fund to Total Deposit Ratio

The deposit constitutes the major parts of the bank liability. Flow of this liability is always certain in the banks liquidity management. Hence, the ratio of liquid fund to total deposits indicates the banks strength to meet uncertain outflow of deposit.

$$\text{Liquid Fund to Total Deposit Ratio} = \frac{\text{Liquid Fund}}{\text{Total Deposit}}$$

Liquid fund to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table.

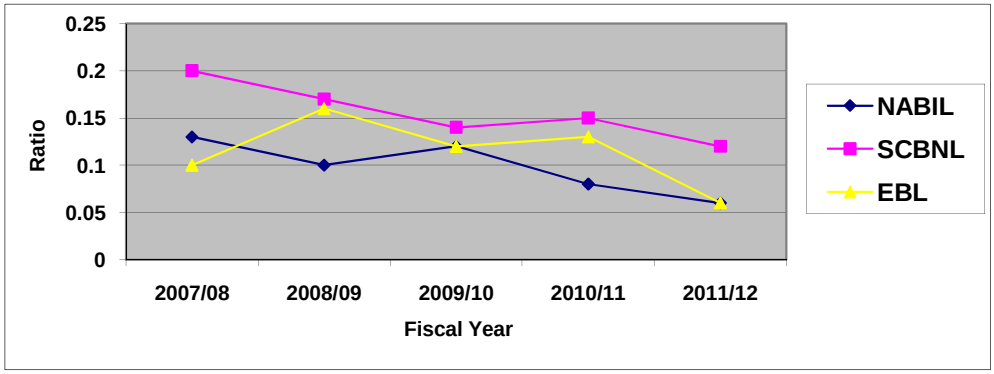
Table No. 4.4
Liquid Fund to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	0.13	0.10	0.12	0.08	0.06	**0.10**	**0.03**	**30.00%**
SCBNL	0.20	0.17	0.14	0.15	0.12	**0.16**	**0.03**	**20.00%**
EBL	0.10	0.16	0.12	0.13	0.06	**0.11**	**0.03**	**30.30%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows liquid fund to total deposit ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.4
Liquid Fund to Total Deposit Ratio



Sources: Table no 4.4

The table and graph show the liquid fund to total deposit ratio of NABIL, SCBNL, and EBL with comparatively. The ratio has ranged from 0.06 of NABIL in year 2011/12 to 0.20 of SCBNL in year 2007/08 respectively. The ratio has fluctuated trend in NABIL. The ratio of SCBNL is in fluctuating trend. It has sharply declined in year 2006. The decreased has caused by decreasing in liquid fund which adversely affects its ability to meet the uncertain outflow of deposits. EBL has comparatively decreased ratio in year 2006 and 2008.

The mean ratio of SCBNL is highest i.e. 0.16 followed by EBL and NABIL i.e. 0.11 and 0.10. This ratio implies that in adverse condition SCBNL and EBL can survive better than NABIL bank. While measuring C.V, SCBNL seems more consistency and has lower chance of risk.

v. Investment on Government Security to Current Assets

Government securities are the safest place to make investment. But the government securities are not as much liquid as cash and bank balance. They can easily sell in the market or they can be converted into cash. The main purpose of this ratio is to examine the portion of commercial banks in current assets that invested on different government securities. We have

$$\text{Investment of Government Securities to Current Asset Ratio} = \frac{\text{Investment on Government Securities}}{\text{Current Assets}}$$

Investment on government security to current assets ratios of NABIL SCBNL and EBL during the study period are presented in table below.

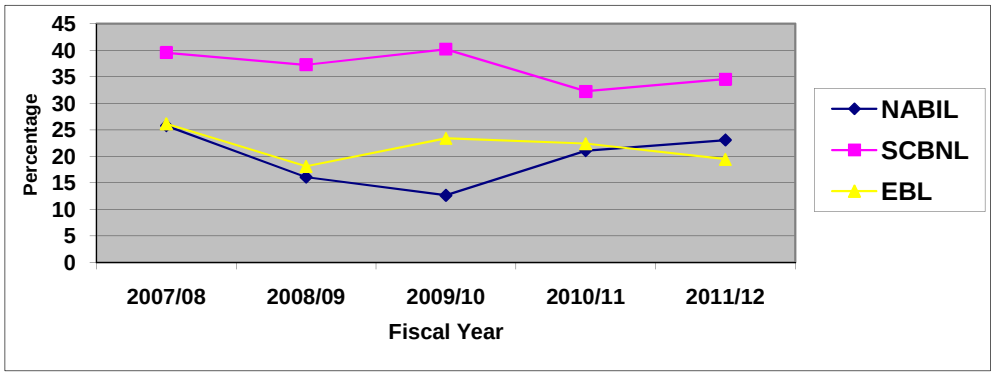
Table No. 4.5
Investment on Government Security to Current Assets Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	25.78	16.12	12.69	21.06	23.09	**19.75**	**8.50**	**43.04%**
SCBNL	39.56	37.28	40.22	32.27	34.55	**28.86**	**4.57**	**15.84%**
EBL	26.18	18.15	23.43	22.42	19.47	**16.69**	**3.23**	**19.35%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the Investment on government security to current assets ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.5
Investment to Government Security to Current Assets Ratio



Sources: Table no 4.5

The table and graph show that NABIL bank and EBL have invested their fund in government securities in fluctuating trend. The ratio has ranged from 12.69 of NABIL in year 2006 to 40.22 of SCBNL in year 2006. SCBNL leads all the years with grossly increasing trend. The ratio of NABIL in year 2007/08 and ratio of EBL in year 2007/08 has increased sharply as compare to other years.

Measuring the investment on government security to current assets ratio on an average, SCBNL could meet highest i.e. 28.86 followed by NABIL i.e. 19.75 and EBL i.e. 16.69. The sharp fluctuation on the ratio also seems in the C.V analysis. Lack of lending opportunity and declining economic growth may have lead banking business invest in government security.

vi. Loan and Advances to Current Assets Ratio

This ratio shows the extent to which the banks are successful to mobilize current assets on loan and advances. The commercial banks are interested to invest their funds as loan and advances. A high ratio of loan and advances to current assets indicates better mobilization of liquidity and vice-versa. Granting the loans and advances always carries a certain degree of risk. Thus, this asse4t of banking business is regarded as risky assets. This ratio measures the management attitudes towards risky assets. The low ratio is indicative of low productive and high degree of safety in liquidity and vice-versa. The interaction between risk and return determines this ratio. We have,

$$\text{Loan \& Advances to Current Assets Ratio} = \frac{\text{Total Loan \& Advances}}{\text{Current Assets}}$$

Loan & advances to current ratios of NABIL SCBNL and EBL during the study period are presented in table.

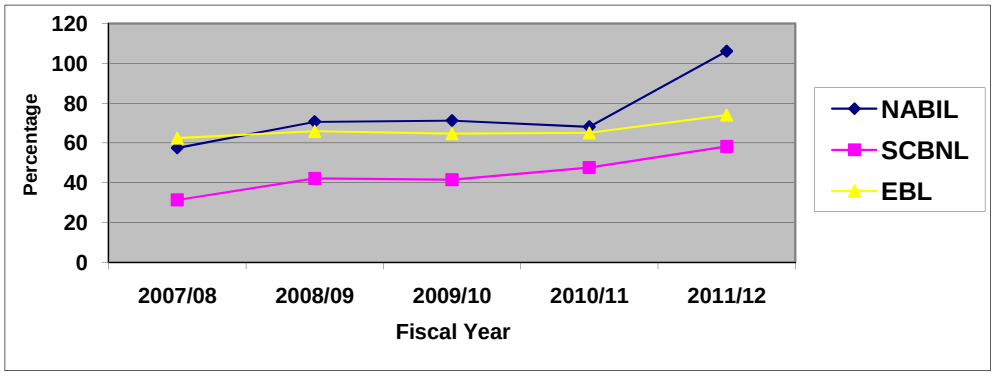
Table No. 4.6
Loan & Advances to Current Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	57.50	70.71	71.26	68.11	106.18	**74.75**	**16.85**	**22.54%**
SCBNL	31.40	42.14	41.61	47.68	58.25	**44.22**	**9.15**	**20.68%**
EBL	62.46	65.85	64.70	65.12	74.06	**66.44**	**4.34**	**6.53%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows the loan and advances to current assets ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.6
Loan and Advances to Current Assets Ratio



Sources: Table no 4.6

The table and graph show that we can see the ratio of loan and advances to current assets of NABIL, SCBNL and EBL with comparative base. All three banks have invested on loan and advances in the fluctuating trend during the period under study. NABIL bank has the best performance in year 2011/12 i.e. 106.18. SCBNL's performance in maintaining high degree of loans and advances ratio is poorer than other two banks in the study period. It can be suppose that SCBNL is shifting its business to other fee based activities.

Measuring the ratio on an average, NABIL is highest i.e. 74.75 followed by EBL i.e. 66.44 and SCBNL i.e. 44.22. It means NABIL and EBL are more sensitive in investment in productive sector than SCBNL. On the basis of coefficient of variation, EBL bank seems more consistency than other two banks i.e. NABIL & SCBNL.

vii. Fixed Deposit to Total Deposit Ratio

Fixed deposit is long term and high interest charge bearing deposit. But increased fixed deposit may be an advantage so far it permits the deploy funds in long term credit. This ratio is calculated in order to find out the proportion of total deposit that is long term and high interest charge bearing. The greater proportion of fixed or long term deposit, the lesser will be the proportion of current or short-term deposit in the total deposit. It can be calculated by dividing the amount of fixed deposit by the amount of total deposit. We have,

$$\text{Fixed Deposit to Total Deposit Ratio} = \frac{\text{Fixed Deposit}}{\text{Total Deposit}}$$

Fixed deposit to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table.

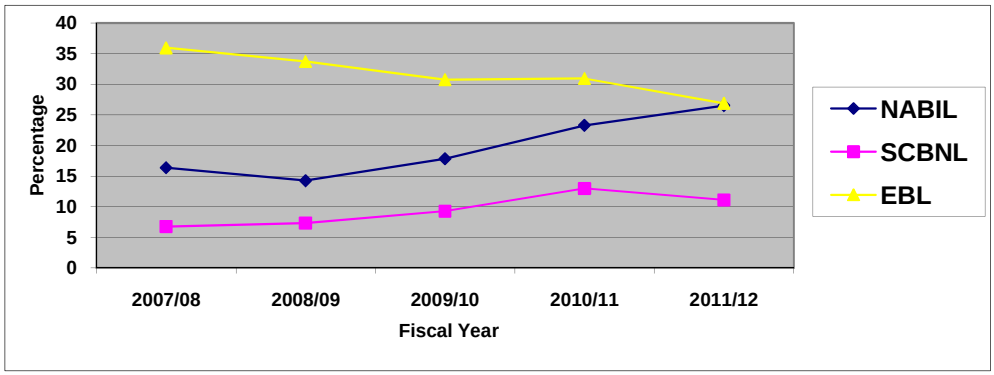
Table No. 4.7
Fixed Deposit to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	16.36	14.25	17.83	23.28	26.52	**19.65**	**4.90**	**24.94%**
SCBNL	6.75	7.33	9.26	12.97	11.10	**9.48**	**2.33**	**24.58%**
EBL	35.94	33.71	30.74	30.94	26.89	**31.64**	**3.14**	**9.52%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the fixed deposit to total deposit ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.7
Fixed Deposit to Total Deposit Ratio



Sources: Table no 4.7

The table and graph the fixed deposit to total deposit ratio of NABIL, SCBNL and EBL comparatively. The ratio has ranged form 6.75 of SCBNL in year 2007/08 to 35.94 of EBL in year 2007/08. NABIL and SCBNL bank has increased trend of fixed deposit and EBL have decreased constantly up to year 2009/10. And slowly increases in 2010/11 but decreased again in 2011/12.

Measuring the ratio on an average, EBL hold higher mean ratio than other i.e. 31.64 and followed by NABIL with 19.65 and SCBNL 9.48. Due to high interest rate banks are uninterested to hold fixed deposit. In case of C.V analysis EBL bank has higher consistency than other banks while NABIL has less consistency.

viii. Saving Deposit to Total Deposit Ratio

Saving deposit is deposited by public in a bank with an explicit objective of increasing their wealth. So interest rate plays a significant role. In other deposits like fixed and current deposits are not interests sensitive. Fixed deposits have fixed term to maturity and fluctuation in interest rate does not allow its movement in short-term. Current deposit does not carry an interest rate. So, it is not sensitive towards interest rate. Saving deposit to total deposit ratio measure the banks ability to meet its sudden outflow of saving deposits due to change in interest rate. This ratio can be calculated by dividing the amount of saving deposit by the amount of total deposit which is given as under:

$$\text{Saving Deposit to Total Deposit Ratio} = \frac{\text{Saving Deposit}}{\text{Total Deposit}}$$

Saving deposit to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table.

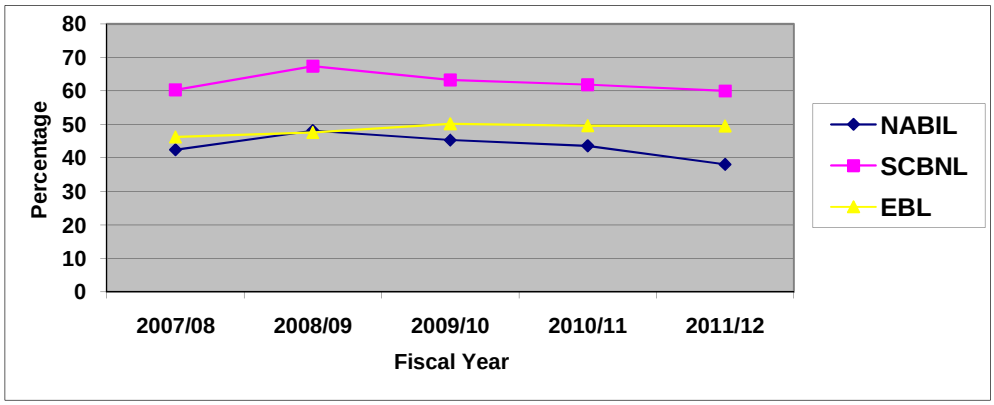
Table No. 4.8
Saving Deposit to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	42.45	48.17	45.33	43.64	38.10	**43.54**	**3.78**	**8.68%**
SCBNL	60.35	67.40	63.30	61.85	60.03	**62.59**	**2.77**	**4.43%**
EBL	46.26	47.60	50.20	49.65	49.56	**48.65**	**2.14**	**4.40%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows the saving deposit to total deposit ratios of NABIL, SCBNL and EBL during the study period

Figure No. 4.8
Saving Deposit to Total Deposit Ratio



Sources: Table no 4.8

The table and graph show the saving deposit to total deposit ratio NABIL, SCBNL and EBL comparatively. In the study period, the ratio has ranged form 38.10 of NABIL in year 2011/12 to 67.40 of SCBNL in year 2008/09. NABIL bank and SCBNL have fluctuating trend of saving deposits while EBL have increasing trend. Measuring saving deposit to total deposit on an average, SCBNL bank has high proportion of saving deposit i.e. 62.59. Therefore the proportion of fixed deposit was less comparing other banks. The ratio of SCBNL bank has remarkably increased in year 2008/09. Increased in SCBNL has

caused by decreased fixed deposit and call margin. Since the saving deposit is the short term obligation, it means the liquidity of SCBNL is higher than other bank. The CV of NABIL is 8.68% which is higher than the C.V of SCBNL and EBL i.e. 4.43% and 4.40% respectively. It means NABIL is less consistency than other two commercial banks.

ix. Cash & Bank Balance To Total Deposit Ratio

This ratio employed to measure whether cash and bank balance is sufficient to cover its current deposit, saving deposit and call margin. It is calculated by dividing cash and bank by total deposits as

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

In this study, cash and bank balance includes cash on hand foreign cash in hand, cheques and other cash items, balance with domestic bank and balance held abroad. The total deposits include current deposits, saving deposits, fixed deposits, money at call and short notice and other deposits.

It is hidden fact that the depositors would not withdraw the total deposits at a time so a certain margin of cash is kept by the bank. This ratio includes that I the ratio is higher, there is higher liquid and if lower, the bank is less liquid.

Cash and bank balance to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table.

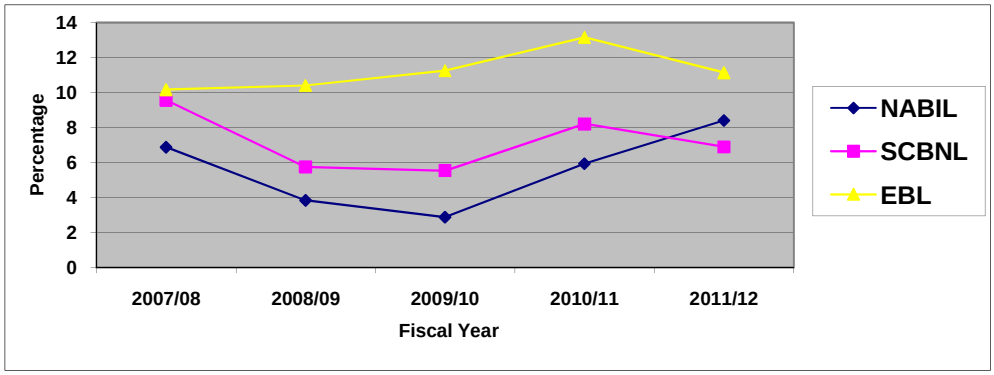
Table No. 4.9
Cash and Bank Balance to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	6.87	3.83	2.87	5.93	8.40	**5.59**	**3.39**	**60.64%**
SCBNL	9.56	5.75	5.53	8.21	6.89	**7.19**	**2.25**	**31.29%**
EBL	10.16	10.40	11.25	13.15	11.13	**11.22**	**1.05**	**9.35%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows cash and bank balance to total deposit ratios of NABIL, SCBNL and EBL from the year ended 2007/08 to 2011/12

Figure No. 4.9
Cash and Bank Balance to Total Deposit Ratio



Sources: Table no 4.9

The table and graph show the cash and bank balance to total deposit ratio of NABIL, SCBNL and EBL comparatively. EBL has the highest ratio in all the year i.e. up to 2008. Its shows the capacity of the bank to meet unanticipated calls on total deposit. The ratio of SCBNL has decreased significantly in year 2008/09 i.e.5.75 which shows the bank efficiency to manage and utilize its assets into cash does not seem to be efficient.

Measuring the ratio on an average, EBL has highest ratio i.e. 11.22 followed by NABIL i.e. 8.40 and SCBNL i.e. 6.89. While measuring the risk, NABIL has the higher risk factor than other banks. In one sense the chance of risk fluctuation is higher with NABIL whereas EBL has lower chance of risk. Therefore, among these bank it has high-degree of surviving capacity in the adverse liquidity position.

x. Investment on Government Securities to Total Deposit Ratio

This ratio shows the proportion of investment on government securities on total deposit. The government securities are safest place to make investment for bank. But government securities are not so much liquid as cash and bank balance.

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

Investment on government securities to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table.

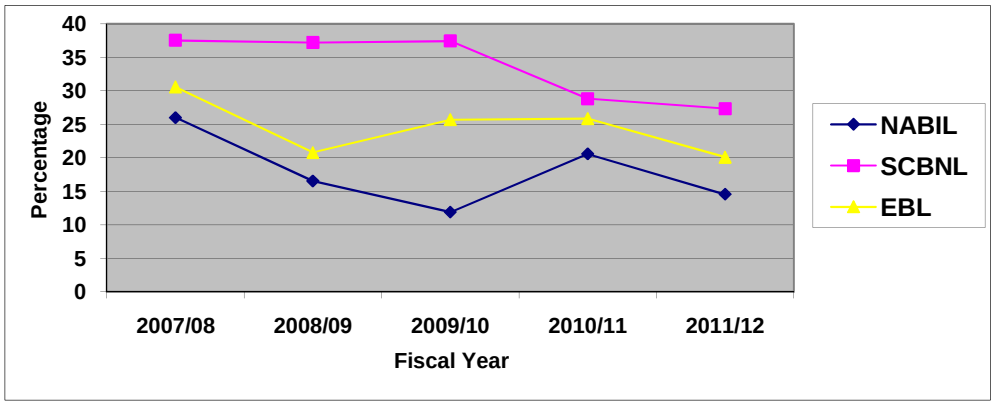
Table No. 4.10
Investment on Government Securities to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	26.01	16.55	11.90	20.60	14.56	**17.92**	**7.79**	**43.47%**
SCBNL	37.56	37.25	37.49	28.84	27.36	**33.70**	**5.96**	**17.69%**
EBL	30.59	20.80	25.71	25.87	20.11	**24.62**	**3.98**	**16.17%**

Sources: Annual Report of NABIL, SCBNL and EBL*1*

The following figure shows the investment on government securities to total deposit ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.10
Investment on Government Securities to Total Deposit Ratio



Sources: Table no 4.10

The table and graph show investment on government securities to total deposits of NABIL, SCBNL and EBL comparatively. The ratio NABIL has decreasing trend. In the study period it has 26.01 highest ratios and 11.90 lowest ratios in year 2007/08 and 2009/10 respectively. Similarly, SCBNL and EBL have highest ratio 37.56 and 30.59 in year 2007/08 and have lowest ratio 27.36 and 20.11 in year 2008 respectively. If the trend of investment in government securities and other instrument stands go up and investment on loan and advances go down, the profitability position of the banks badly affected due to low return.

On the basis of C.V analysis EBL has the highest consistency. The chance of risk fluctuation is lower with bank comparing to other banks

4.1.2 Turnover Ratio

i. Total Investment to Total Deposit Ratio

A commercial bank mobilizes its deposit by investing its fund in different securities issued by government and other financial or non-financial companies. This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various securities. A high ratio indicates the success in mobilizing deposit in securities and vice versa. We have,

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

Total investment to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table below.

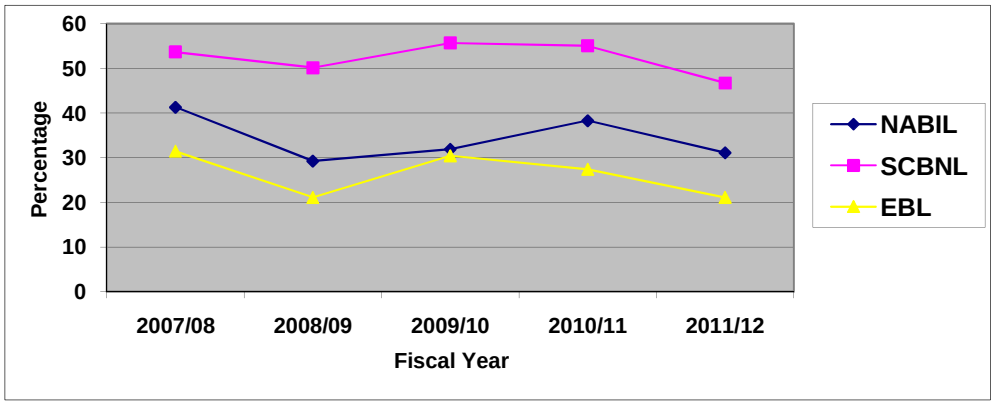
Table No. 4.11
Total Investment to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	41.33	29.27	31.93	38.32	31.14	**34.40**	**5.23**	**15.20%**
SCBNL	53.68	50.18	55.71	55.10	46.75	**52.28**	**4.80**	**9.18%**
EBL	31.44	21.08	30.43	27.41	21.10	**26.29**	**6.08**	**23.13%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows the total investment to total deposit ratios of NABIL, SCBNL and EBL from the year ended 2002/2003 to 2006/2007

Figure No. 4.11
Total Investment to Total Deposit Ratio



Sources: Table no 4.11

The table and graph show the total investment to total deposit ratio of NABIL, SCBNL and EBL comparatively. From the above it can be concluded that all the banks have fluctuating trend of ratio under the study period. In the study of mean ratio, NABIL and EBL are not as much success as SCBNL in deposit mobilization. The mean ratio of NABIL and EBL i.e. 31.14 and 21.10 respectively is less than SCBNL i.e. 46.75.

On the basis of CV analysis SCBNL seems higher consistency than other bank. It has lower chance of risk fluctuation. It can be concluded that NABIL and EBL are not successful in mobilizing of its collected deposit in investment than SCBNL

ii. Loans and Advances to Total Deposits Ratio

Loan and advances is the major area of fund mobilization of commercial banks. Loans and advances is the first type of application of funds, which is more risky as compare to other type of investment. This ratio measures the bank's ability to utilize the depositor's funds to earn profit by providing loan and advances. This ratio is compute by dividing loan and advances by total deposits. We have,

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

In this study, loan and advances refer to total of loan, advances, cash, credit, local and foreign bills purchased & discounted and total deposits refer to total of all kind of deposits.

Generally, a high ratio reflects higher efficiency to utilize depositor's fund. But much ratio may be problem for liquidity point of view.

Loan and advances to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table below.

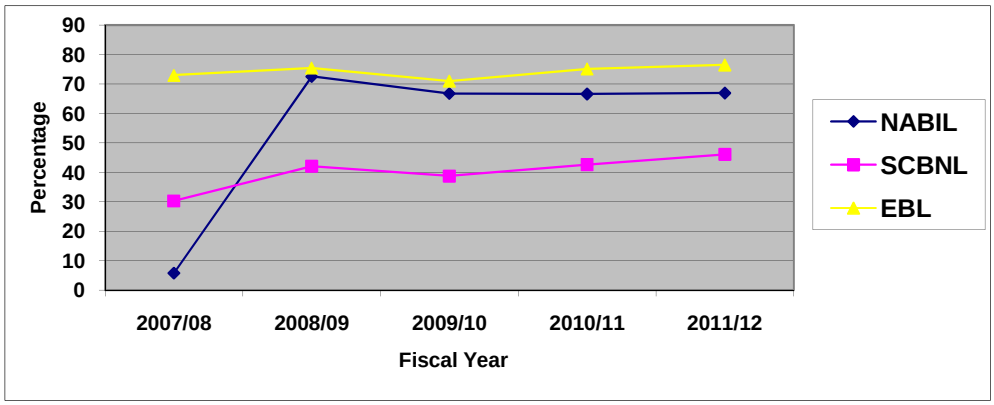
Table No. 4.12
Loan and Advances to Total Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	5.8	72.57	66.79	66.61	66.94	**66.34**	**4.91**	**7.40%**
SCBNL	30.30	42.12	38.75	42.61	46.12	**39.98**	**5.51**	**13.78%**
EBL	72.97	75.45	71.01	75.13	76.49	**74.21**	**3.76**	**5.07%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the loan and advances to total deposit ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.12
Loan and Advances to Total Deposit Ratio



Sources: Table no 4.12

The table and graph show loan and advances to total deposit ratio of NABIL, SCBNL and EBL comparatively. EBL has the highest ratio comparing up to 2008 year. SCBNL has the lowest ratio throughout five years period. The ratio of NABIL seems to be in fluctuated trend. The increase has made due to the increase in loan and advances in the particular period.

Measuring the ratio on an average, the overall performance of SCBNL seems the best with mean ratio of 46.12 under five year study period. EBL and NABIL have the mean ratio of 76.49 and 66.94 respectively. On the basis of C.V analysis, NABIL seems to be more consistency than other two banks.

iii. Loan and Advances to Saving Deposit Ratio

Loan and advances to saving deposit ratio reflects how much the banks are successful in mobilizing their saving deposit in loan and advances for the profit generating purpose. It is computed dividing the loan advances by saving deposits.

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

Generally high ratio reveals higher efficiency in utilizing the assets. But it should be noted that too high ratio might not be better form its liquidity point of view.

Loan and advances to saving deposit ratios of NABIL SCBNL and EBL during the study period are presented in table below.

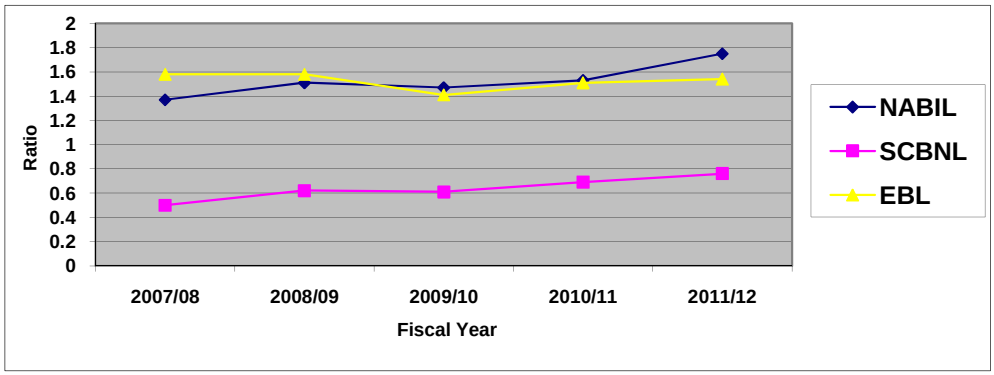
Table No. 4.13
Loan and Advances to Saving Deposit Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	1.37	1.51	1.47	1.53	1.75	**1.53**	**0.14**	**9.15%**
SCBNL	0.50	0.62	0.61	0.69	0.76	**0.64**	**0.09**	**14.06%**
EBL	1.58	1.58	1.41	1.51	1.54	**1.52**	**0.12**	**7.89%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows the loan and advances to total deposit ratios of NABIL, SCBNL and EBL during the study period.

Figure No 4.13
Loan and Advances to Saving Deposit Ratio



Sources: Table no 4.13

The table and graph show the loans and advances to saving deposit ratio of NABIL, SCBNL and EBL comparatively. In the study period NABIL has 1.75 highest ratio and 1.37 lowest ratio in year 2008 and 2004 respectively. Similarly, SCBNL and EBL have highest ratio 0.69 and 1.58 in year 2007 and 2003, 2004 and have lowest ratio 0.50 and 1.41 in year 2004 and 2006 respectively. The ratio of NABIL is in increasing trend but SCBNL and EBL are in fluctuated trend. The lack of reliable investment opportunity and fear of losing the principle may cause decrease in loan and advances.

Measuring the average ratio, EBL and NABIL has invested more part of saving deposit in loan and advances i.e. 1.52 and 1.53 respectively than SCBNL i.e. 0.64. On the basis of C.V analysis, NABIL seems more consistency than other.

4.1.3 Profitability Ratio

i. Interest Income to Interest Expenses Ratio

The ratio of interest income to interest expenses measures the gap between interest rates offered and interest rate charged. Since NRB has restricted the gap between the interest offered and interest charged, in average, should not be more than 5%, the difference in this ratio is mainly caused by the ratio of fund mobilized and fund collected. The credit creation power of commercial banks has high impact on this ratio. We have,

$$\text{Total Interest Earned to Interest Expenses} = \frac{\text{Total Interest Earned}}{\text{Interest Expenses}}$$

Interest income to interest expenses ratios of NABIL SCBNL and EBL during the study period are presented in table below.

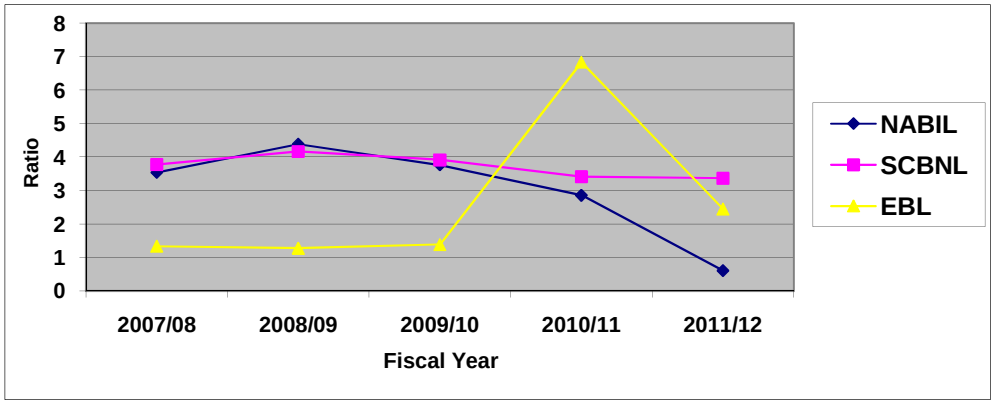
Table No. 4.14
Interest Income to Interest Expenses Ratio

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	3.54	4.39	3.77	2.86	0.61	**3.10**	**1.50**	**48.39%**
SCBNL	3.78	4.17	3.92	3.42	3.37	**3.60**	**0050**	**13.89%**
EBL	1.34	1.28	1.39	6.84	2.45	**2.63**	**2.48**	**94.30%**

Sources: Annual Report of NABIL, SCBNL and EBL

The figure below shows the interest income to interest expenses ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.14
Interest Income to Interest Expenses Ratio



Sources: Table no 4.14

Above ratio indicates NABIL and SCBNL have high degree of gap between interest offered and interest charged. NABIL and SCBNL are charging high interest to the borrowers and offering low interest rate to the depositors. The increased volume of fixed deposits and high interest rate paid there on has caused NABIL ratio to fall in year 2003 i.e. 3.21. Than after NABIL has increasing trend of fixed deposit till 2005 and then decreased up to last year during the study period. The highest cost of deposits and low

volume of non-interest bearing deposits in the deposit of EBL has caused the gap between interest income and interest expenses to be the least.

In average study, SCBNL has highest ratio i.e. 3.60 followed by NABIL and EBL i.e. 3.10 and 2.63 respectively. On the basis of C.V analysis, SCBNL seems more consistency than other and EBL has less consistency.

ii. Net Profit to Loan and Advances

Net profit to Loan and advances reflects extend to which the banks are successful in mobilizing the loan and advances to acquire profit. This ratio reveals the profit generating capacity of commercial banks through loan and advances. Higher ratio is preferable. We have,

$$\text{Return on Loan \& Advances Ratio} = \frac{\text{Net Profit or Loss}}{\text{Total Loan \& Advances}}$$

Net profits to loan and advances ratios of NABIL SCBNL and EBL during the study period are presented in table below.

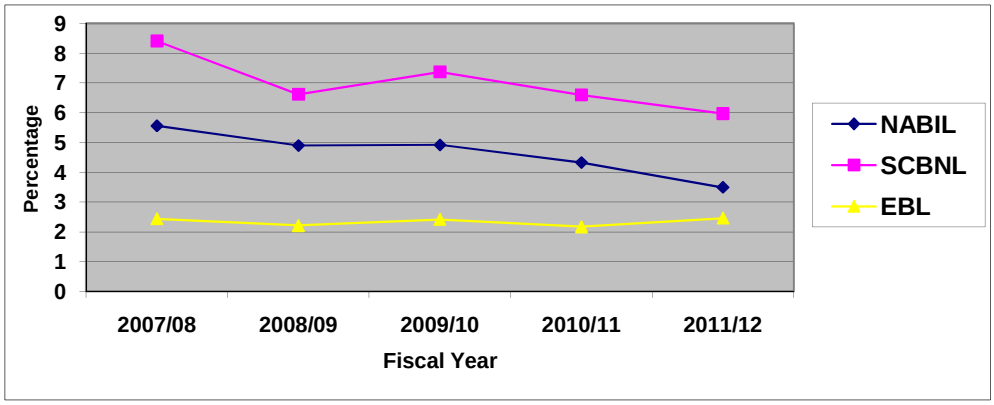
Table No. 4.15
Net Profit to Loan and Advances

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	5.56	4.90	4.92	4.33	3.49	**4.34**	**0.75**	**17.28%**
SCBNL	8.41	6.62	7.37	6.6	5.97	**6.51**	**1.00**	**15.36%**
EBL	2.44	2.21	2.42	2.17	2.46	**2.34**	**0.15**	**6.41%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the net profit to loan and advances ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.15
Net Profit to Loan and Advances Ratio



Sources: Table no 4.15

Above table shows the net profit to loan and advances ratio of NABIL, SCBNL and EBL comparatively. SCBNL has the highest ratio i.e. 8.41 in year 2004 and lowest ratio i.e. 5.97 in year 2008. Similarly, NABIL and EBL have highest ratio 5.56 and 2.46 in year 2004 & 2008 respectively and have lowest ratio 3.49 and 2.17 in year 2008 and 2007 respectively. NABIL bank has fluctuating trend in this ratio. SCBNL has also decreasing trend but the highest ratio than other two banks throughout the study period while EBL has the lowest ratio.

The performance of SCBNL seems the best with mean ratio of 6.51. This implies that SCBNL is successful to acquire profit through loan and advances than other two banks. NABIL and EBL have the mean ratio of 4.34 and 2.34 respectively. On the basis of C.V analysis EBL seems more consistency in its performance.

iii. Net Profit to Total Assets (Return on Assets)

This ratio is useful in measuring the profitability of financial resource invested in the firm's assets. It is used for evaluating the total funds or investment of company. The return on assets or profit to assets ratio is calculated by dividing the amount of net profit by the amount of total assets employed. We have,

$$\text{Return on Assets} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

Net profit to total assets ratios of NABIL SCBNL and EBL during the study period are presented in table below.

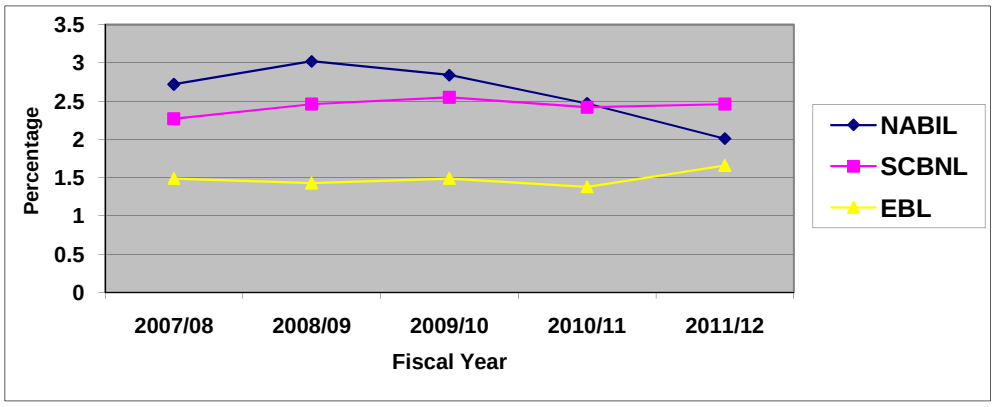
Table No. 4.16
Net Profit to Total Assets

BANKS	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	2.72	3.02	2.84	2.47	2.01	**2.61**	**0.42**	**16.09%**
SCBNL	2.27	2.46	2.55	2.42	2.46	**2.43**	**0.15**	**6.17%**
EBL	1.49	1.43	1.49	1.38	1.66	**1.49**	**0.09**	**6.04%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the net profit to total assets ratios of NABIL, SCBNL and EBL during the study period

Figure No. 4.16
Net Profit to Total Assets Ratio



Sources: Table no 4.16

The above table and figure show the net profit earned to total assets ratio of NABIL, SCBNL, and EBL comparatively. The ratio has been ranged form 1.38 of EBL in 2007 to 3.02 of NABIL in year 2005. The ratio of NABIL is in increasing trend. It implies that the bank is successful in generating the profit by investing the firm's resource. EBL has the lowest ratio throughout the study period among three banks. It shows the capacity of utilization of the financial resources is very low to generate the profit.

Measuring the average ratio, the mean ratio of NABIL is 2.61 and is the highest ratio. SCBNL and EBL have 2.43 and 1.49 respectively. This ratio shows the NABIL's best

performance. According to C.V analysis, EBL seems to be more consistency i.e. 6.04% than NABIL and SCBNL i.e. 16.09% and 6.17% respectively.

iv. Net Profit to Total Deposit Ratio

Net Profit to total deposit ratio reflects the extent to which the banks are success to mobilize deposit to earn profit. Higher ratio is preferable. We have,

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

Net profit to total deposit ratios of NABIL SCBNL and EBL during the study period are presented in table below.

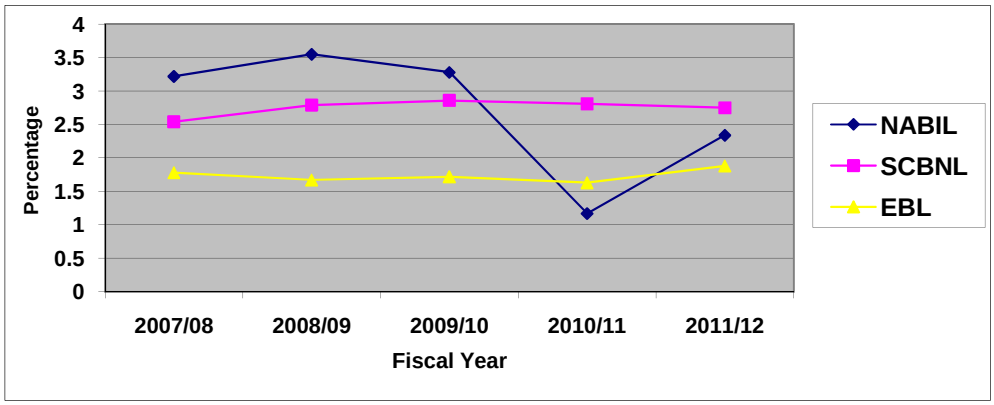
Table No. 4.17
Net Profit to Total Deposit Ratio

Banks	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D	C.V
NABIL	3.22	3.55	3.28	1.17	2.34	**2.71**	**1.04**	**38.38%**
SCBNL	2.54	2.79	2.86	2.81	2.75	**2.75**	**0.16**	**5.82%**
EBL	1.78	1.67	1.72	1.63	1.88	**1.74**	**0.09**	**5.17%**

Sources: Annual Report of NABIL, SCBNL and EBL

The following figure shows the net profit to total deposit ratios of NABIL, SCBNL and EBL during the study period.

Figure No. 4.17
Net Profit to Total Deposit Ratio



Sources: Table no 4.17

The above table shows the net profit to total deposit ratio of NABIL, SCBNL and EBL comparatively. From this table it can be concluded NABIL, SCBNL and EBL have fluctuating trend of ratio. Under the study period, NABIL has highest ratio 3.55 in year 2005 and lowest ratio 1.17 in year 2007. Similarly, SCBNL and EBL have highest ratio 2.86 and 1.88 in year 2006 and 2008 and have lowest ratio 2.54 and 1.63 in year 2004 and 2007 respectively.

Measuring the average, SCBNL has the highest ratio in terms of net profit i.e. 2.75 followed by NABIL and EBL i.e. are 2.71 and 1.74 respectively. This ratio shows the SCBNL's best performance and it sound like desirable return has been expected form loan and advances as well as the fund management has been properly mobilized by this bank. On the basis of C.V analysis EBL has more consistency than NABIL and SCBNL.

4.2 Relationship with Liquidity & Profitability

The sole objective behind the establishment of commercial banks is to earn profit. Ability to earn from the maximum use of available resources by the organization is known as profitability. It is the measure of efficiency and the search for it provides an incentive to achieve efficiency. Profit is the indicator of an efficient operation of the commercial banks. They acquire profit by providing different services to its customers or by making investment of different kinds. Sufficient profit is must to have good liquidity, grab investment opportunities, expand transaction, finance government in need of development fund, to overcome the future contingencies and meet fixed internal obligations of the banks.

Here we must distinguished liquidity form profitability. Profitability is a measure of operating performance whereas liquidity is a measure of financial condition. It is possible for an enterprise to be profitable and yet unable to pay its current obligations.

Table No. 4.18
Total Liquidity and Profitability/Losses to Total Deposit

		Fiscal Year				
Banks		**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**
NABIL	Liquidity	13.38	9.79	12.22	8.41	5.93
	Profitability	3.22	3.55	3.28	1.17	2.34
SCBNL	Liquidity	20.04	17.43	14.11	15.35	11.98
	Profitability	2.54	2.79	2.86	2.81	2.75
EBL	Liquidity	10.16	16.04	11.74	13.15	6.33
	Profitability	1.78	1.67	1.72	1.63	1.88

Sources: Annual Report of NABIL, SCBNL and EBL

The table presented above shows percentage of liquidity and profitability to total deposit of commercial banks. Banks need liquidity to meet its various financial obligations and for its day to day operation also. Having right amount of liquidity at the right time and at the right place is very essential for the banks.

Observing the profitability side of the banks, there is some differences in the profitability position. The above table shows the profitability position of commercial banks over the period of five years starting form fiscal year 2004 to 2008.

The figures suggest us that SCBNL is the most liquid bank among these three banks. It has maintained relatively the high amount of liquidity throughout the study period. It has 20.04%, 17.43%, 14.11%, 15.35% and 11.98% in the fiscal year 2004, 2005, 2006, 2007 and 2008 respectively. The profit of SCBNL has not shown consistency. It has remarkable decrease in year 2004.

From the profitability point of view, NABIL bank has been earning a consistent level of profit throughout the study period. It has earned 3.22%, 3.55%, 3.28%, 1.17% and 2.34% in the fiscal year 2004, 2005, 2006, 2007 and 2008 respectively.

EBL is the average liquid bank among these three banks. It has maintained relatively the high amount of liquidity throughout the study period. It has 10.16%, 16.04%, 11.74%, 13.15% and 6.33% in the fiscal year 2004, 2005, 2006, 2007 and 2008 respectively. The profit of EBL has not shown consistency. It has remarkable fluctuated trend till the last year during study period.

Either excess or less holding of liquidity, both will hamper the smooth operation of the banks. So, utmost care should be given while holding liquidity by the commercials banks.

4.3 Coefficient of Correlation Analysis

In this study Karl Pearson's coefficient of correlation is used to find out the relationship between current assets an loan and advances, total deposit to loan and advances, total deposit and net profit, deposits and liquid fund to net profit.

4.3.1 Correlation Coefficient between Total Deposit to Loan and Advances

Deposit and loan and advances are very important liabilities and assets of the bank. Deposit is mobilized as the loan and advances. Proper mobilization of deposit is very crucial function of commercial banks. Banks can make profit through loan and advances. The relation between deposit and loan must be optimum to gain profit. This tool measures the degree of relationship between these two variables. In this analysis, deposit is independent variables(x) and loan and advances is dependent variables(y). The main reason of finding out "r" between these two variables is to justify weather deposit are significantly used as loan and advances in a proper way or not.

The table below shows the value of r, r^2, probable error (P.E.) and 6P.E. between deposit and loan and advances of NABIL, SCBNL, and EBL for the study period.

Table No 4.19
Correlation Coefficient between Total Deposit to Loan and Advances

Banks	(r)	(r^2)	P.E.	6 P.E.	Remarks
NABIL	**0.9553**	**0.9126**	**0.0264**	**0.1584**	Significant
SCBNL	**0.8877**	**0.7880**	**0.0640**	**0.3840**	Significant
EBL	**0.9461**	**0.8951**	**0.0316**	**0.1896**	Significant

Sources: Annual Report of NABIL, SCBNL and EBL

In the case of NABIL, it is found that the coefficient of correlation between deposit and loan and advances is 0.9553. It shows there is high degree of correlation between these two variables. The coefficient of determination (r^2) is 0.9126 which depicts that the dependent variable i.e. loan and advances is explained by the independent variable i.e. deposit by 91.26%. Similarly probable error (P.E.) of this bank is 0.0264 It is used to find out the significance of the obtain value. Here, since r> P.E., the value of 'r' > 6 P.E. It shows that the 'r' is definitely significant.

In case of SCNBL, it is found that the coefficient of correlation between total deposit and loan and advances is 0.8877. It shows positive relationship between two variables. The coefficient of determination (r^2) is 0.7880 which shows that the dependent variable i.e. loan and advances is explained by the independent variables i.e. total deposit about 78.80%. Since r> P.E. >6 P.E., the value of r is definitely significant.

Similarly, in case of EBL, the value of coefficient of correlation between deposit and loan and advances is 0.9461 which shows that positive relationship between these variables. The coefficient of determination (r^2) 0.8951, it means the coefficient of variable i.e. loan and advances is explained by the independent variable i.e. deposit about 89.51%. Since r> P.E. >6 P.E., the value of r is definitely significant.

In conclusion of the calculation we can say that there is a positive relationship between deposit and loan and advances of all the banks. If deposit is increases loan and advances will definitely increase. The relationship between the variables of all the banks are significant and the value of (r^2) shows high percent of dependent variable which has been explained by independent variable. This indicates that the banks are successful in mobilizing the deposits in proper way for loan and advances. Moreover we can conclude that NABIL has the highest correlation between these variables and SCBNL has the least. This means NABIL has better mobilized its collected deposit.

4.3.2 Correlation Coefficient between Current Assets and Loan and Advance

Correlation coefficient between current assets and loan and advances measures the degree of relationship between these two variables. Here current assets are independent variable (x) and loan and an advance is dependent variable (y). The objective behind the calculation of this correlation is to find out whether current assets is significantly mobilized as loan and advances.

The table shows the 'r', 'r^2', probable error (P.E.) and 6 P.E. Between the current assets and loan and advances during the study period.

Table No 4.20
Correlation Coefficient between Current Assets and Loan and Advance

Banks	(r)	(r^2)	P.E.	6 P.E.	Remarks
NABIL	**0.7496**	**0.5619**	**0.1321**	**0.7926**	Insignificant
SCBNL	**0.8708**	**0.7583**	**0.0729**	**0.4374**	Significant
EBL	**0.9328**	**0.8701**	**0.0392**	**0.2352**	Significant

Sources: Annual Report of NABIL, SCBNL and EBL

In case of NABIL, the coefficient of correlation between current assets and loan and advances is 0.7496 which means there is high degree of correlation between these variables. The coefficient of determination (r^2) is 0.5619 which depicts that the dependent variable loan and advances is explained by the independent variable current assets about 56.19%. Similarly, the probable error (P.E.) and 6 P.E. are 0.1321 and 0.7926 respectively. Since r > P.E. But, r < P.E. it means that the 'r' is definitely insignificant In conclusion we can say that there is negative relationship between current assets & loan and advances of NABIL bank. If the total current assets decreases, loan and advances will definitely increased.

In case of SCBNL and EBL, the correlation coefficient is 0.8708 and 0.9328 respectively and both have also positive value. It shows the positive relationship between current assets and loan and advances. The coefficient of determinants (r^2) of SCNBL is 0.7583 and EBL is 0.8701. It shows that the relationship between loan and advances of SCNBL is explained by current assets 75.83%, where as in case of EBL current assets explain 87.01% of the loan and advances. The probable error of SCNBL and EBL are 0.0729 and

0.0392 respectively. The value of 'r' is greater than probable error. This means the coefficient of correlation is significant for both banks.

In conclusion of calculation we can say that there is positive relationship between current assets and loan and advances of SCBNL and EBL. But, negative relationship between current assets and loan & advances of NABIL. If current assets increases, loan and advance will be definitely increase SCBNL and EBL, but vice versa with NABIL. The value of r^2 shows high percent in dependent variable. Moreover, we can say that EBL has the highest correlation between these variables.

4.3.3 Correlation Coefficient between Deposit and Net Profit

Deposit is mobilized to earn profit. Coefficient of correlation between deposit and net profit measures the relationship between deposit and net profit measures the relationship between these two variables (y). The purpose of computing coefficient of correlation between deposit and net profit is significantly correlated with respective deposit or not.
The table shows the value of 'r' and 'r^2', Probable Error (P.E.) and 6 P.E. between deposit and net profit for the study period.

Table No 4.21
Correlation Coefficient between Deposit and Net Profit

Banks	(r)	(r^2)	P.E.	6 P.E.	Remarks
NABIL	**0.3343**	**0.1118**	**0.2679**	**1.6075**	Insignificant
SCBNL	**0.9609**	**0.9234**	**0.0231**	**0.1386**	Significant
EBL	**0.9547**	**0.9114**	**0.0267**	**0.16041604**	Significant

Sources: Annual Report of NABIL, SCBNL and EBL

In case of NABIL, the coefficient of correlation between deposit and net profit is -0.3343 which means that there is low degree of correlation between these variables. The Coefficient of determination of NABIL is 0.1118 which depict that the dependent variable net profit is explained by independent variable deposit about 11.18%. Similarly, the Probable error (P.E.) and 6 P.E. are 0.2679 and 1.6075 respectively. Hence r < 6PE, the value of 'r' is insignificant.

In case of SCBNL, the correlation coefficient is 0.9609 which means the relation between deposit and net profit is highly positive. The coefficient of determinates is 0.9234, it

shows that the relationship between net profit is explained by deposit is 92.34%. Hence r> P.E. >6 P.E., therefore the result is defiantly significant.

Similarly, in case of EBL, the correlation coefficient between deposit and net profit is 0.9547 which means there is high degree of relationship between these variables. The Coefficient of determination is 0.9114, it shows that relationship between net profit is explained by deposit is 91.14%. Since the value of 'r' is greater than P.E. and 6 P.E., this means the value of 'r' is definitely significant.

In conclusion of calculation we can say that there is low degree of relationship between deposit and net profit of NABIL banks. There is positive relationship between deposit and net profit of SCBNL and EBL banks. If total deposit increases, net profit will be definitely increased. The value of r^2 shows high percent in dependent variable. Moreover, we can say that EBL has the highest correlation between these variables.

4.3.4 Correlation Coefficient between Liquid Fund and Net Profit

Correlation coefficient between liquidity and profitability measures the degree of relationship these variables. Here Liquid fund is independent variable (x) and net profit is dependent variable (y). It shows whether the net profit is significantly correlated with liquid fund or not.

The table shows the 'r', 'r^2', probable error (P.E.) and 6 P.E. between the liquid fund and net profit during the study period.

Table No 4.22
Correlation Coefficient between Liquid Fund and Net Profit

Banks	(r)	(r^2)	P.E.	6 P.E.	Remarks
NABIL	0.0710	0.0050	0.3001	1.8006	Insignificant
SCBNL	-0.1674	0.0280	0.2932	1.7592	Insignificant
EBL	0.3614	0.1306	0.2622	1.5732	Insignificant

Sources: Annual Report of NABIL, SCBNL and EBL

In case of NABIL, it is found that the coefficient of correlation between liquid fund and net profit is 0.0710. It shows low positive relationship between these two variables. The coefficient of determination (r^2) is 0.0050 which depicts the dependent variable i.e. net

profit is explained by the independent variable i.e. liquid fund by 5.00%. Similarly probable error (P.E.) of this bank is 0.3001. Here, since r < P.E., the value of 'r' < 6 P.E. It shows that the 'r' is definitely insignificant.

In case of SCNBL, it is found that the coefficient of correlation between liquid fund and net profit is -0.1674. It shows negative relationship between two variables. The coefficient of determination (r^2) is 0.0280 which shows that the dependent variable i.e. net profit is explained by the independent variables i.e. liquid fund only about 2.80%. Since r < 6 P.E., the value of r is definitely insignificant.

Similarly, in case of EBL, the value of coefficient of correlation between deposit and loan and advances is 0.3614 which shows there is very low degree of relation between these variables. The coefficient of determination (r^2) is 0.1306; it means the coefficient of variable i.e. net profit is explained by the independent variable i.e. liquid fund about 13.06%. Since r < 6P.E., the value of r is definitely insignificant.

In conclusion of the calculation we can say that there is a positive relationship between liquid fund and net profit of NABIL & EBL has negative relationship between Liquidity Fund and Net Profit. But EBL has given importance to the liquidity factor. That is why it has highly positive correlation and the value of 'r' which is also high. If liquid fund increases net profit will also increase. Here the number of observations that we have considered is small so that might be the case of this result also. And we can see better results in the future when the number of observations will rise.

4.4 Trend Analysis

Under this topic, analysis trend of deposit collection, its utilization and net profit of NABIL, SCBNL and EBL are studied. To utilize deposits a commercial bank may grant loan and advances and invest government securities and share & debentures of other companies. Under this topic an attempt is made to analyze trend of deposit, Investment and income of NABIL, SCBNL and EBL and also forecast their trend for next five years. The projections are based on the following assumptions:

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

4.4.1 Trend Analysis of Total Deposit

Deposit is one of the very sensitive liabilities of commercial banks. Its trend and behaviors are determined by various seasonal and cyclical factors. The following table describes the trend values of total deposit of NABIL, SCBNL, and EBL

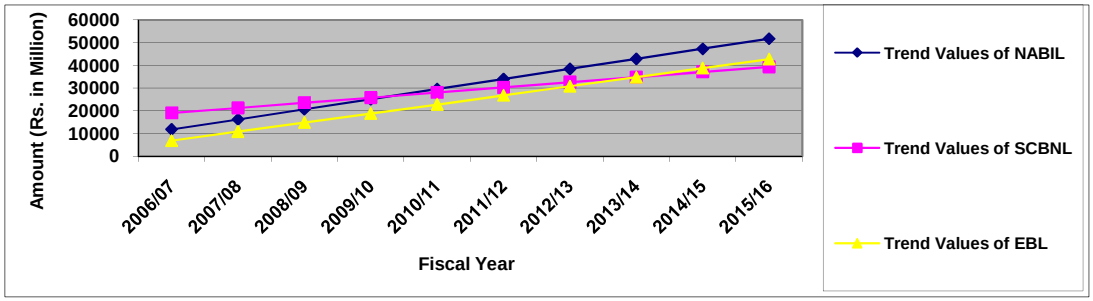
Table No 4.23
Trend Analysis of Deposits

(Rs. in million)

Fiscal Year	Trend Values of NABIL	Trend Values of SCBNL	Trend Values of EBL
2006/07	11792.53	19094.32	6842.64
2007/08	16227.30	21342.02	10833.98
2008/09	20662.07	23589.72	14825.32
2009/10	25096.84	25837.42	18816.66
2010/11	29531.61	28085.12	22808
2011/12	33966.38	30332.82	26799.34
2012/13	38401.15	32580.52	30790.68
2013/14	42835.92	34828.22	34782.02
2014/15	47270.69	37075.92	38773.36
2015/16	51705.46	39323.62	42764.70
2016/17	58304.25	43256.68	47852.25

Sources: Annual Report of NABIL, SCBNL and EBL

Figure No. 4.18
Trend Analysis of Total Deposit



Sources: Table no 4.23

The above chart and table show the trend behaviors of total deposits in NABIL, SCBNL and EBL has the increasing trend. From the first year of trend, SCBNL line poses the highest area among the three banks during the whole study period. If other thing remains the same, the total deposit of NABIL will be 51705.46 million in FY 2011/12 which is highest deposit among the three banks. Similarly deposit of SCBNL & EBL will be 39323.62 million and 42764.70 million for the FY 2011/12 respectively.

Hence to sum up, the slope of NABIL represents a high degree of increase than that of other two bank and able to maintain high growth rate in collecting deposits.

4.4.2 Trend Analysis of Total Investment

A commercial bank mobilizes its deposit by investing its fund in different sectors. The following table describes the trend values of investment of NABIL, SCBNL, and EBL.

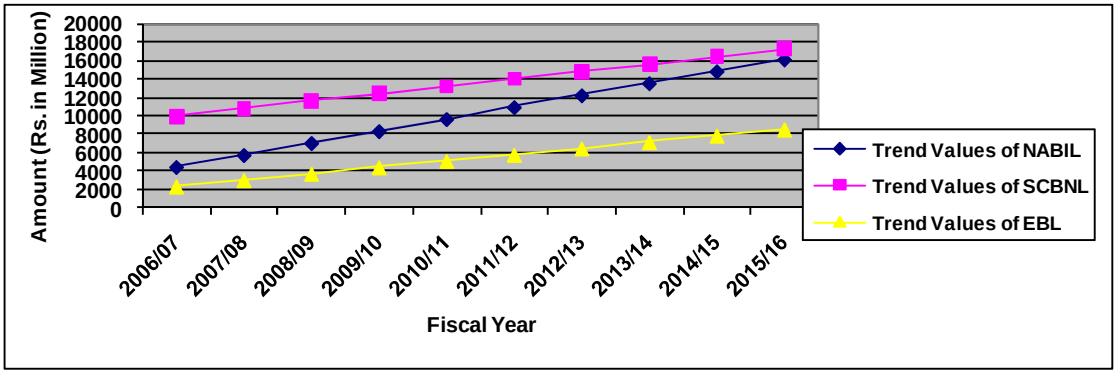
Table No 4.24
Trend Values of Investment

(Rs. in million)

Fiscal Years	Trend Values of NABIL	Trend Values of SCBNL	Trend Values of EBL
2006/07	4457.18	9903.71	2310.64
2007/08	5745.51	10719.84	2991.48
2008/09	7033.84	11535.97	3672.32
2009/10	8322.17	12352.10	4353.16
2010/11	9610.50	13168.23	5034.00
2011/12	10898.83	13984.36	5714.84
2012/13	12187.16	14800.49	6395.68
2013/14	13475.49	15616.62	7076.52
2014/15	14763.82	16432.75	7757.36
2015/16	16052.15	17248.88	8438.20

Sources: Annual Report of NABIL, SCBNL and EBL

Figure No.4.19
Trend Value of Investment



Sources: Table no 4.24

The above table shows the total investment of NABIL, SCBNL & EBL has the increasing trend value. Other things remaining the same the total investment of SCBNL will be 17248.88 million in the mid July 2012. That is the highest investment among three banks. Similarly, the investment of NABIL & EBL will be 16052.15 million and 8438.20 million respectively.

From the above trend analysis, it is found that the total investment of SCBNL is higher in compared to NABIL & EBL. The calculated trend values of total investment of NABIL, SCBNL and EBL are fitted in the trend line.

4.4.3 Trend Analysis of Net Profit

Under this topic, the trend values of net profit for five years from mid July 2006/07 to 2010/11 have been calculated and forecasted fro next five years from mid July 2010/11 to 2011/12.

The following table shows the trend values of net profit for ten yeas from mid July 2002/03 to 2011/12 of NABIL, SCBNL and EBL.

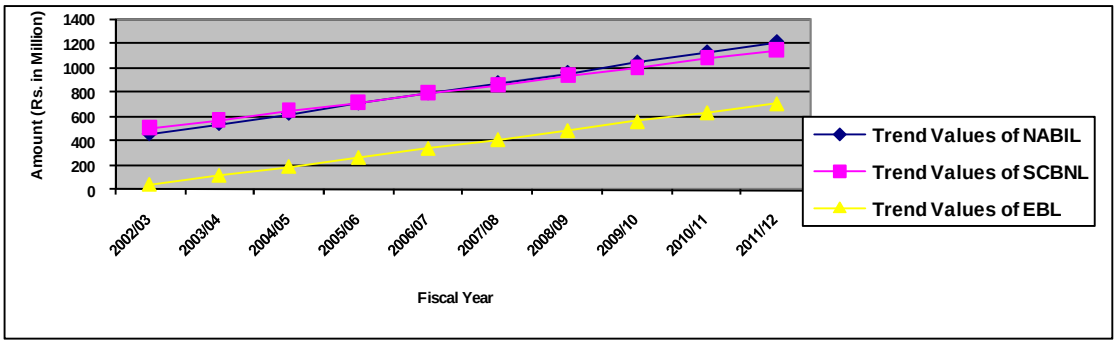
Table No 4.25
Trend Values of Net Profit

(Rs. in million)

Fiscal Years	Trend Values of NABI L	Trend Values of SCBNL	Trend Values of EBL
2006/07	458.27	506.33	40.25
2007/08	542.07	577.80	114.35
2008/09	625.87	649.27	188.45
2009/10	709.67	720.74	262.55
2010/11	793.47	792.21	336.65
2011/12	877.27	863.68	410.75
2012/13	961.07	935.15	484.85
2013/14	1044.87	1006.62	558.95
2014/15	1128.67	1078.09	633.05
2015/16	1212.47	1149.56	707.15

Sources: Annual Report of NABIL, SCBNL and EBL

Figure No.4.20
Trend Value of Net Profit



Sources: Table no 4.25

The above table shows that the net profit of NABIL, SCBNL & EBL is in increasing trend. Other things remaining the same, the net profit of NABIL will be 1212.47 million in the mid July 2012. That is the highest among the three during the study period. Similarly, the net profit of EBL will be 707.15 million and SCBNL will be 1149.56 million in mid 2012.

From the above trend analysis, it is fund that the net profit of NABIL is the highest among three sample banks. The calculated trend values of net profit of NABIL, SCBNL and EBL are fitted in the trend line.

4.5 Major Findings of the Study

The following points present a comprehensive summary to the main findings of the study:

Liquidity Ratio

- The measurement of liquidity has revealed that all the banks are capable in discharging their current liability by current assets. EBL is maintaining high current ratio than NABIL and SCBNL. Comparatively low volume of current liability and high volume of current assets in assets and liability mix of EBL has resulted high current ratio. NABIL has also high consistency than other banks
- Cash and bank balance to current assets measure the liquidity risk arising form day to day operation. The ratio of EBL is higher than SCBNL and NABIL. Though this ratio is frequently used in assessing short-term financial liquidity, it should not be consider perfect measure. A low cash and bank balance may indicate extraordinary managerial skill rather than reflect financial weaknesses. In the basis of C.V analysis EBL seems more consistency than other.
- The ratio of liquid fund to current liability has some degree fluctuation among the banks as compare to above ratio. The mean ratio is ranged from 0.10 to 0.34 and it has increasing trend. SCBNL shows the highest inconsistency in this ratio.
- Liquid fund to total deposit ratio measures the banks strength to meet the uncertain outflow of deposit. SCBNL has the highest mean ratio. The overall ratio is in

decreasing trend. SCBNL has highest fluctuation in this ratio. Overall analysis of this ratio indicates that SCBNL can survive better than other two banks in adverse condition. The high degree of core deposits in the composition of liquidity of commercial banks requires them to maintain low liquidity ratio as compare to other industries. This calculation of liquidity of SCBNL bank shows the high liquidity ratio maintained by this bank.

- The ratio of investment on government security to current assets has measured the total proportion of government securities in current assets. SCBNL has invested the highest proportion government securities and this ratio is significantly above than the ratios of other two banks. EBL and NABIL has very fluctuating trend in their investment in government securities.
- The ratio of loan and advances to current assets has measured the proportion of loan and advances in current assets that is used to increases the income of the banks. NABIL bank has deployed the highest proportion of its current assets as loan and advances. The mean ratio of NABIL and EBL does not have deviated significantly but SCBNL has low ratio.
- The fixed deposit to total deposit ratio has deviated significantly among the banks. They have decreasing trend in this ratio. Due high interest rate banks are uninterested to hold fixed deposit. This indicates that they are implementing different policy to collect the deposit. Similarly, saving deposit to total deposit ratio has measured the liquidity risk arising from fluctuation of interest rate in market. The mean ratio NABIL and EBL does not have deviated significantly but SCBNL has low ratio. SCBNL has very high proportion of fixed assets in deposit mix.
- The saving deposit to total deposit ratio of all banks fluctuate between 38.10 and 67.40. The mean ratio of SCBNL is significantly above than ratios of two banks. Its shows the capacity of the bank to meet unanticipated calls on total deposit. The ratio of SCNBL has decreased significantly in year 2006, 2007 and 2008, which shows the bank efficiency to manage and utilize its assets into saving deposit does not seem to be efficient.
- Measuring the Cash & Bank Balance to Total Deposits ratio on an average, EBL has highest ratio i.e. 11.22 followed by SCBNL i.e. 7.19 and NABIL i.e. 5.59. While

measuring the risk, NABIL has the higher risk factor than other banks. In one sense the chance of risk fluctuation is higher with NABIL whereas EBL has lower chance of risk. Therefore, among these banks it has high degree of surviving capacity in the adverse liquidity position.

- The Investment on Government Securities to Total Deposits ratio NABIL has decreasing trend. In the study period it has 26.01 highest ratios and 11.90 lowest ratios in year 2007/08 and 2009/10 respectively. Similarly, SCBNL and EBL have highest ratio 37.56 and 30.59 in year 2007/08 and 2007/08 and have lowest ratio 28.84 and 20.80 in year 2006 and 2005. On the basis of C.V analysis EBL has the highest consistency. The chance of risk fluctuation is lower with bank comparing to other banks

The C.V of NABIL is the highest in almost of the cases and this has significantly differed from the C.V of SCBNL & EBL. This indicates that there is a high degree of variation in the performance of NABIL. Since the variance has caused due to the fluctuating trend of every components. The performance of NABIL is developing in most of the cases.

Turnover / Utilization Ratio

- Total investment to total deposit ratio has measured the proportion of total deposit that is used to increase the income of the banks in total deposit. SCNBL has deployed the highest proportion of its total deposit in earning activities and this ratio is significantly above than the ratio of other two banks. NABIL and EBL performance in investing activities has not increased proportionately as compare to total deposit increment. These two banks are not as much as successful in mobilizing the deposits into the investing activities.
- Loan and advances to total deposits ratio has measured the proportion of total deposit that is used to generate income of the banks as loans and advances. EBL has deployed the highest proportion of its total deposits as loan and advances followed by NABIL and SCNBL. This indicates that in fund mobilizing activities, EBL is significantly better than SCNBL and NABIL. Their loan and advances has not increased proportionately as compare to the deposits.

- The Loan and advances to saving deposits ratio of NABIL is in increasing trend but SCBNL and EBL are in fluctuated trend. The lack of reliable investment opportunity and fear of losing the principle may cause decrease in loan and advances. The average ratio, NABIL and EBL has invested more part of saving deposit in loan and advances i.e. 1.53 and 1.52 respectively then SCBNL i.e. 0.64. On the basis of C.V analysis, EBL seems more consistency than other.

Profitability Ratio

- The gap between NABIL and SCBNL in respect of interest income and interest expenses is highly deviated. The one rupee of interest expenses has been able to earn 3.60 in SCBNL. This ratio have resulted the reciprocal result as measured by loan & advances to the total deposit and total investment to total deposit ratio. If the mobilization of fund has caused impact on this ratio, the result would be the same as that demonstrated by the above ratios. The high volume of money at call has helped SCBNL to increase its interest income which is not measured by above ratios. Interest expenses has resulted this ratio to be the reciprocal of earlier. SCBNL being the superpower in the technology and modern banking has succeeded in collecting the fund in the cheapest price.
- Net profit to loan and advances ratio reflects the extend to which the banks are successful in mobilizing the fund to acquire income. The mean ratio among the banks has highly deviated. The performance of SCNBL is significantly better and successful in acquiring profit through loan and advances than other two banks. It has the highest ratio. The performance of NABIL is moderate. EBL shows significantly lower return against loan and advances as it has the lowest ratio among these banks.
- Return on assets ratio is useful in measuring the profitability of financial resource invested in the firm's assets. NABIL bank has the highest ratio followed by SCNBL and EBL. NABIL and SCNBL have satisfactorily level of performance in mobilizing the firm's resources. They have not highly deviated ratio. But EBL has remarkable low ratio. Net Profit to total deposit ratio reflects the deposit utilization capacity of banks to earn profit. All banks have fluctuating trend of ratio. Due to the past condition, banks withdrew their investment form various sectors. However in year

2007, SCNBL and NABIL bank has decreased trend in ratio. EBL has the lowest ratio among the banks

In the profitability ratio, the performance of SCNBL is significantly better than other two banks. SCNBL has succeeded to utilize its resources in better way. NABIL bank has moderate performance. EBL has very poor performance. It has not succeeded to utilize its collected fund to generate the income.

Coefficient of Correlation Analysis

Co-efficient of correlation analysis between different variables of NABIL, SCBNL and EBL, it reveals that:

- The correlation chapter has shown generally high degree of significant correlation between all the variables measured except in the case of liquid fund to net profit. The correlations between deposit and loan & advances and current assets & loan and advances have high degree of positive correlation. This concludes that a unit of increment in total deposit and current assets are most likely to increase the volume of loan and advances. As far as the net profit and its correlation with total deposit, SCBNL has very high degree of positive correlation. But it seems that SCBNL has given importance to the profit factor. That is why it has highly positive correlation and the value of 'r' is also highly significant. If deposit fund increases net profit will also increase.
- NABIL, the coefficient of correlation between current assets and loan and advances is 0.7496 which means there is positive of correlation between these variables. In case of SCBNL and EBL, the correlation coefficient is 0.8708 and 0.9328 respectively and both have also positive value. It shows the positive relationship between current assets and loan and advances. The value of 'r' is greater than probable error. But, NABIL's r is less than 6PE. This means the coefficient of correlation is significant for SCBNL & EBL and insignificant for NABIL. There is positive relationship between current assets and loan and advances of all banks. If current assets increase, loan and advance will be definitely increased. The value of r^2 shows high percent in dependent

variable. Moreover, we can say that EBL has the highest correlation between these variables.

- NABIL, the coefficient of correlation between deposit and net profit is low degree of positive correlation between these variables. Hence r < 6PE, the value of 'r' is insignificant. This reveals that though 'r' is positive, incensement of deposit may or may not increase profit. In case of SCBNL, the correlation coefficient is highly positive. EBL, the correlation coefficient between deposit and net profit high degree of relationship between these variables. Hence r> P.E. >6 P.E., therefore the result is defiantly significant. We can say that there is low degree of positive relationship between deposit and net profit of NABIL. If total deposit increases, net profit will be slightly increased and there is positive relationship between deposit and net profit of SCBNL and EBL banks. If total deposit increases, net profit will be definitely increased. The value of r^2 shows high percent in dependent variable. Moreover, we can say that SCBNL has the highest correlation between these variables.
- We can say that there is a low degree of positive relationship between liquid fund and net profit of EBL and NABIL. But SCBNL has negative relationship between liquid fund and net profit. But EBL has given importance to the liquidity factor. That is why it has highly positive correlation and the value of 'r' is also highest than others. But all banks are insignificant. If liquid fund increases net profit will also slightly increases of EBL and NABIL. Here the number of observations that we have considered is small so that might be the case of this result also. And we can see better results in the future when the number of observations will rise. But in case of SCBNL it has negative correlation between liquid fund and net profit, it means if liquid fund increase, net profit will decreases.

Trend Analysis and Projection for Next Five Years

The trend analysis of total deposit, total investment and net profit and projection for next five years of NABIL, SCBNL and EBL reveals that:

- Total deposits of all the three banks have increasing trend. If other thing remains the same, the total deposit of NABIL will be 51705.46 million in FY 2011/12 which is highest deposit among the three banks. Similarly deposit of SCBNL & EBL will be

39323.62 million and 42764.70 million for the FY 2011/12 respectively. The slope of SCBNL represents a high degree of increase than that of other two bank and able to maintain high growth rate in collecting deposits.

- NABIL, SCBNL and EBL of the total investment are in increasing trend, other things remaining the same the total investment of SCBNL will be 17248.88 million in the mid July 2012. That is the highest deposit among three banks. NABIL & EBL will be 16052.15 million and 8438.20 million respectively. The total investment of SCBNL is higher in compared to NABIL & EBL.
- The net profit of NABIL, SCBNL & EBL is in increasing trend. Other things remaining the same, the net profit of NABIL will be 1212.47 million in the mid July 2012. That is the highest among the three during the study period. Similarly, the net profit of EBL will be 707.15 million and SCBNL will be 1149.56 million.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The present study has been designed to overcome the issues relating to liquidity management in Nepalese commercial banks. It was aimed to find out comparative liquidity management analysis in NABIL Bank, Standard Chartered Bank and Everest Bank. It tries to know whether or not commercial banks able to maintain adequate liquid assets. The study gives emphasis in finding out liquidity position by various financial analyses as required. The prime components of liquidity management is the financial condition in terms of profitability, efficiency in deposit mobilization and the management quality in terms of liquidity management, designed for study to meet the objectives. Present study successfully explored the financial condition and the performance of the selected banks in term of the liquidity management.

5.1 Summary

Present study is very successful to meet the stated objectives designed for the study. The researcher highlights or introduces the meaning and importance of research paper and meets the objectives followed by various sequential steps.

The first chapter of the study dealt about basic assumption of the study. Basically it highlights the concept and importance or significance of the study. It also presents research issues, research problems, basic objectives of the study, rationality of the study, limitation of the study, process of the study and introduction of the study. Lastly, it discusses about the organizational structure of the study.

The second chapter helped the researcher to provide knowledge about the development and progress made by the earlier researcher on the concerned field or topic of the study. It helped to know the research work undertaken by them. It also tried to know some concept used in this study. Moreover, it summarized the finding of the previous findings of the study to provide knowledge about the background of the work done by them and to step

the duplicate of previous work. Lastly, earlier international research related to concept is also attempted to review the finding of the study.

The third chapter of the study discussed about various research methodologies used for the study. Basically, research methodology here signifies the research design, sources of data, population and sample of data, data collection procedure, data collection techniques, data collection methods and tools and techniques employed etc.

The fourth chapter of the study dealt about data presentation and analysis. It first presented the generated data in tabular form and analyzed it in systematically as per the objectives mentioned above. The researcher tried to analyze the comparative financial condition or position of bank in terms of liquidity, profitability and deposit mobilization. Detail of the findings can be presented as below.

5.2 Conclusion

The present study successfully explored the result to meet the stated objectives of the study and found meaningful. The result showed that the overall liquidity strength of SCBNL can be considered the best among the banks. However, the liquidity risk arising form interest rate in SCBNL is the most likely. Since the market is highly sensitive towards the interest rate and SCBNL has been generally been offering low interest rate as compare to other banks. If SCBNL cannot tie up its saving deposits holder form it's advanced and personalized banking systems, the failure in liquidity in SCBNL is most likely than other two banks in coming future.

Total investment to total deposit ratio has measured the proportion of total deposit that is used to increase the income of the banks in total deposit. SCNBL has deployed the highest proportion of its total deposit in earning activities and this ratio is significantly above than the ratio of other two banks. NABIL and EBL performance in investing activities has not increased proportionately as compare to total deposit increment. These two banks are not as much as successful in mobilizing the deposits into the investing activities. Loan and advances to total deposits ratio has measured the proportion of total

deposit that is used to generate income of the banks as loans and advances. EBL has deployed the highest proportion of its total deposits as loan and advances followed by NABIL and SCNBL. This indicates that in fund mobilizing activities, EBL is significantly better than SCNBL and NABIL. Their loan and advances has not increased proportionately as compare to the deposits. The ratio of NABIL is in increasing trend but SCBNL and EBL are in fluctuated trend. The lack of reliable investment opportunity and fear of losing the principle may cause decrease in loan and advances.

The growth of deposits is higher than the growth of loan and advances and opportunity in investing activities limited. The liquidity position of three banks is likely to increase in the coming future. This certainty increase the capability of these banks in increasing their credit but if the economy did not take the upward trend and existing violence and political instability continues, the liquidity caused by flow of deposits would caused the great damage in profitability.

The probability in SCBNL is most likely if this bank does not go on looking new are of lending. The lower liquidity in NABIL and EBL indicate better productivity of their fund than SCBNL. Looking upon the increasing trend of deposit and loan and advances, the performance of EBL seems good in the area of investment and impact on national economy. However, profitability ratio has reflected the poor performance of EBL. Interest income to interest expenses ratio and profitability position are the indicative of SCBNL better performance than other two banks. The better profitability ratio of SCBNL has proved this bank the best in managing the best in liquidity policy according to the demand of profit-oriented business. But overall moderate position in the baking business has put the NABIL in the top position in absolute term.

The correlations between deposit and loan & advances and current assets & loan and advances have high degree of positive correlation. This concludes that a unit of increment in total deposit and current assets are most likely to increase the volume of loan and advances. As far as the net profit and its correlation with total deposit, NABIL has low degree of positive correlation. But it seems that NABIL has not given importance to the

liquidity factor. That is why it has low degree of positive correlation and the value of 'r' is also insignificant. If liquid fund increases net profit will also increases but nominally.

Total deposits of all the three banks have increasing trend. The deposit collection of NABIL is higher than SCBNL and EBL. The total investment of three banks has increasing trend. It is found that the total investment of SCBNL is higher in compared to NABIL & EBL. The net profit of NABIL, SCBNL & EBL is in increasing trend. It is found that the net profit of SCBNL is the highest among three sample banks.

5.3 Recommendations

This can be a valuable piece of research works in liquidity management topic. It explored the existing situation and identified the various components for further improvement in the study of liquidity management. Secondary sources of information are used for fulfilling the objectives. It may be useful for academicians, parishioners, especially to bank management and/or any others who are directly or indirectly involved in banking activities. Based on the findings of the study, the researcher recommended highlighting the guidelines to put forward for further improvement.

- The proportion of high interest bearing deposit in deposit mix of EBL is very high and this has result the highest interest expenses. Fixed deposit is high interest bearing deposit and bank is not success to mobilize its deposit properly. The growth rate in deposits as compare to loan and advances is high. Hence this bank is suggested to reduce the interest rate to some extend. This will result the low growth rate in deposit. Consequently offsets the liquidity arising from high propensity of deposits.
- SCBNL and NABIL are investing more parts of its deposits in government securities. If the trend of investing in government securities and other instruments tends go up and investment tends go down, the profitability position of both bank badly effected due to low return.
- Since all the banks have less investment in comparison to deposits, all are strongly recommended to follow the liberal investment policy so that more percentage of deposit can be invested to different profitable sectors. Because, analysis shows that investment is a significant factor which affects the net profit of the bank.

Subsequently, a skillful administration is the must because negligence may become a reason of principle loss.

- As examined by interest income to interest expenses ratio, the interest gap in SCBNL and NABIL is highly unfavorable for the nation development. Since this gap is not existed due to the credit creation power of these banks, as the total loan and advances to total deposits ratio is not even 1:1, this gap has its reason with high interest offered. Thus, banks are recommended to lower this gap specially by charging low interest in investment. Lowering this gap results, in high volume of loans and advances and helps in increasing the sustainable liquidity mobilization practice.
- The high volume of liquidity shows that the high degree of investment strength has been prevailing in all of these banks. The lack of reliable investment opportunity and fear of losing the principle in rural sectors has been keeping these banks to less orient toward the investment function. Hence, the government should take appropriate action to initiate these banks to attract to flow of credit in rural economy. Posing the compulsions by directives does not create long term healthy liquidity mobilization practices unless the commercial banks are not self motivated to flow credit in this sector.
- Future researchers are recommended to focus into non financial performance indicators such as job satisfaction, service quality performance, customers' satisfaction, stakeholders support, government rating, supervisor's teamwork, human resource development, human resource planning, human resource management, job designation etc.

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