

CHAPTER – I

INTRODUCTIONS

1.1 Background of the Study

Banks play a significant role in the development of a country. Bank is a financial institution, which maintains the self-confidence of various segments of society and extends credit to the people. The financial institution is an indispensable part for the upliftment of a country. The financial institution is a vast field comprising of banks, financial companies, insurance companies, co-operatives, stock exchange and foreign exchange markets, mutual fund, etc. These institutions collect idle and scattered money from the general public and finally invest in different enterprises that consequently help in reducing poverty, increase in life style of people, increase employment opportunities, and thereby developing society and the country as a whole. Thus, today the financial institutions have become the base for measuring the level of economic development of a country.

Nepal is one of the least developed countries of the world. Poverty has stood as a serious challenge to the country. The country is unable to fulfill the national requirement of people. In such context, it is realized that without industrial development, it is impossible to have social and economic development. So for industrial and economic development, banks play the vital role.

Banking industry has acquired a key position in mobilizing resources for finance and social economic development of a country. Bank assists both the flow of goods and services from the producers to the consumer and the financial activities of the government. Banking provides the country with a monetary system of making payment and also makes loan to maintain production in the economy.

Commercial bank is an institution, which accepts demand deposits, subject to check and make short-term loan to business enterprises, regardless of the scope of its other services. When, commercial bank act 1974 was amended in 1984 to increase competition among commercial bank. Hence, provision made to allow private sectors including foreign investments to open commercial banks. As a result, Nepal Arab bank (NABIL) was established on July 12, 1984 with

partnership of Dubai bank limited. The numbers of commercial banks operating in Nepal are increasing every day and many more are in the pipeline to commence their business.

Commercial banks have been contributing a lot towards the promotion and expansion of both export and import trade. They provide both pre-shipment and post shipment finance to exporters. They start their operation with automated system, which could easily attract the elite group of business community due to their prompt served modern management. In this way, commercial banks are successful to bring healthy competition among banks, increase in foreign investment, promote and expand export-import trade, introduce new techniques and technologies. All these reveal the vital role and the need of banks in Nepalese banking sector or financial service industry.

The development of the country is always measured by its economic development through economic indices. Therefore, every country gives emphasis on the upliftment and prosperity of its economy. The financial institutes act as intermediaries by transferring the resources from the point of surplus to the deficit. A new organized financial institution including financial companies, commercial banks and others financial intermediaries play an important role for the development of the country. They collect scattered financial resources from the mass and invest them among those who are associated with the social, commercial, and economic activities of the country. The economic activity of the country can hardly be carried forward without the assistance of financial institutions. They are indispensable part of the development process.

Commercial banks play an important part for economic development of a country as they provide capital for the development of the industries, trade, and business by investing the saving collected as deposits from the public. They vander various service to their customers facilitating their economic and social life. Therefore, a competitive and reliable banking is essential to the nation for the development.

Nowadays, there is less opportunity in banking sector to make investment because of competition. In this condition, Banks can take initiation in search of new opportunity, so that they can survive in the competitive market and earn profit. But investment is the very risk job.

For a purposeful, safe, profitable investment, banks must follow sound investment and fund mobilizing policy.

In recent times, many commercial banks are providing consumer-financing facilities. They provide direct housing loan, home equity loan, vehicle loan, education loan, loan for household appliances, etc. These all activities affect the cash flows, liquidity and profitability of the banks.

The study related to analyze the liquidity management of commercial banks in Nepal. The study has been done with special reference to Nepal Investment bank (NIBL) and Himalayan Bank Limited (HBL).

1.2. Profile of Sample Banks

A Nepal Investment Bank Ltd. (NIBL)

Nepal Investment Bank Ltd. (NIBL), (previously known as Nepal Indosuez Bank Ltd.) was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was credit Agricole Indosuez, a subsidiary of one largest banking group in the world.

With the decision of credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen has acquired on April 2002 the 50% shareholding of credit Agricole Indosuez in Nepal Indosuez Bank Ltd. The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure. Rastriya Banijya Bank holds 15%, Rastriya Beema Sansthan holds 15%, General Public holds 20%, and the Nepalese promoters hold 50%.

NIBL managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. Besides commercial banking services, the bank also offers industrial and merchant banking services. The bank has six branches in Kathmandu Valley at the following locations: Putalisadak, New Road, Pulchowk (Lalitpur), Thamel, Kalimati, and Seepadol (Bhaktapur). In addition, the bank also has eleven other branches outside Kathmandu

Valley in Banepa, Narayangarh, Birgunj, Janakpur, Jeetpur, Bhairawa, Biratnagar, Pokhara, Nepaljung, Butwal and Birtamod. Bank will be aggressively opening new branches at different parts of the Kingdom to serve its customers better. Recently bank has opened its new branch outside the valley in the Birtamod. Investment Bank Limited has always been committed to providing a quality service to its valued customers, being truly a Nepali Bank. All customers are treated with utmost courtesy as valued clients. The bank, wherever possible, offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers, Investment Bank Limited has adopted the latest banking technology. This has not only helped the bank to constantly improve its service level but has also prepared the bank for future adaptation to new technology. The Bank already offers unique services such as the pre-paid mobile recharging system through its ATM, SMS Banking and Internet Banking to customers and will be introducing more services like these in the near future.

B. Himalayan Bank Limited (HBL)

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

Himalayan Bank has always been committed to providing a quality service to its valued customers with a personal touch. All customers are treated with utmost courtesy as valued clients. The bank wherever possible offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers, Himalayan Bank has adopted the latest banking technology. This has not only helped the bank to constantly improve its service level but has also prepared the bank for further adaptation to new technology. The bank already offers unique services such as SMS banking and Internet banking to customers and will be introducing more services like these in the near future.

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

1.3 Focus of the Study

Liquidity management refers to as using money to get long-term benefit. Investment in its broad sense means the sacrifice of certain percent value for (possible uncertain) future value. In pure financial sense, the subsequent use of the term investment will be in the prevalent financial sense, of the placing of money in the hands of other for their use, in return for a proper instrument entitling holder's to fixed income payment or the participation in expected profits. The present economic position of Nepal is encouraging the savers to deposit their money in banks rather than investing in stocks, assets and new business etc., which in turn is hampering the bank's portfolio because deposits are higher and limited safe investment areas are decreasing day by day.

In spite of low interest rate, the depositors are feeling secured towards commercial banks but the highest surplus deposits are almost idle in the bank due to continuous fall in Nepalese economy because of conflict situation, changed taxation policy, and adversely affected tourism industry and agricultural industry.

The study focuses on the mobilization of deposits and reinvestment aspects of three banks viz. Nepal Investment Bank Ltd & Himalayan Bank Ltd. The study is mainly focused on the optimum portfolio between deposits and investment. It revolves round the concept of managing the surplus financial assets in which a way, which leads to the wealth maximization and provides a significant future source of income. It focuses on analyzing the causes of investment problems, their management and remedies, and developing the new investment areas and sectors, which can again boost the Nepalese economy.

1.4. Statement of the Problem

The need of liquidity management for economic development of a country is no more to question. But we are facing an acute problem of resource mobilization. We have 31 commercial banks in Nepal, which are very much considered to be vital financial institutions to mobilize domestic resources. They have of course a good performance in the course of mobilizing idle deposits. The problems associated with commercial banks with regard of liquidity management and reinvestment aspects are highlighted below:

- a. What is the position of deposit mobilization of the sampled banks?
- b. What is the investment position of the sampled banks?
- c. What is the relationship between investment, loans and advances and total deposits?
- d. Are they maintaining sufficient liquidity?
- e. What is the gap between mobilized deposits and investments or use fund of the sample banks?

1.5. Objectives of the Study

The basic objective of the study is to have true insight into the liquidity management of Nepal Investment Bank and Himalayan Bank. This aims to examine its efficiency and effectiveness in disbursing and recovery of loans as well following the directives of NRB Acts and its own policies. The specific objectives of the study are:

-) To analyze the liquidity management of sample banks.
-) To analyze the deposit and investment position of the banks.
-) To find out the relationship between deposit, investment, loans and advances and net profit.
-) To conduct trend analysis of deposit, investment, loans and advances and net profit.
-) To provide suggestions for the improvement based on findings.

1.6. Significance of the Study

The proper mobilization and utilization of domestic resources become indispensable for any developing country aspiring for a sustainable economic prosperity of the nation. The success and prosperity of the banks relies heavily upon the successful formulation and effective implementation of investment policy.

The significances of the study are pointed out as below:

- a. The study helps to know how well the banks (Nepal Investment Bank and Nepal Himalayan Bank.) are utilizing their deposits.
- b. The study is important to policy makers and academic professionals to formulate policies and plans based on the performance of these banks.
- c. The study helps these banks to compare each other's performance and plan accordingly for future.
- d. The study helps these banks to make sound programs and policies based on the recommendation suggested.
- e. The study guides to investors, customers (depositors, loan takers as well as other types of clients), competitors, personnel of the banks, stockbrokers, dealers, market makers, etc. to take various decisions regarding deposits and borrowings.

1.7. Limitations of the Study

This study is conducted for the partial fulfillment of master's of business studies, so it possesses some limitations of its own kind. The limitations of the study are follows:

-) The study is based only on secondary data so it may contain reporting errors.
-) There is in total, 32 commercial banks in the financial market current but this researcher takes only two from them. The sampled banks are Investment Bank and Nepal Himalayan Bank.
-) The study covers the past and present state of the commercial banks in Nepal and will not make any projection in future.
-) The study is made within limited timeframe, limited data, and with lack of research experiments.
-) The study covers the data of only five fiscal years from 2006/07 to 2010/11 and the conclusion drawn confines only to the above period.
-) This research used only the selective tools for analysis and interpretation of data.

1.8. Organization of the study

The present study is organized in such 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 has been designed in to five chapters which are as follows:

Chapter-I: Introduction

This chapter describes the basic concept and background of the study. It has served orientation for readers to know about the basic information of the research area, focus of the study, problems of the study, objectives of the study and need or significance of the study and limitation of the study. It is oriented for readers for reporting giving them the perspective they need to understand the detailed information about coming chapter.

Chapter-II: Review of literature

The second chapter of the study assures readers that they are familiar with important research that has been carried out in similar areas. It also establishes that the study as a link in a chain of research that is developing and emerging knowledge about concerned field.

Chapter-III: Research Methodology

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It describes about the various source of data related with study and various tools and techniques employed for presenting the data.

Chapter-IV: Presentation and Analysis of data

This chapter analysis the data related with study and presents the finding of the study and also comments briefly on them.

Chapter-V: Summary, Conclusion and Recommendation

On the basis of the results from data analysis, the researcher concluded about the performance of the concerned organization for better improvement.

Bibliography, Appendix and other supporting documents have also been incorporated at the end of the study.

CHAPTER - II

REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant proposition in the related area of the study so that all the past and previous studies, their conclusion and perspective of deficiency may be known and further researcher can be conducted or done. It is an integral mandatory process in research works. It is a crucial part of all dissertations. In other words it's just like fact are finding based on sound theoretical framework oriented towards discovery of relationship guided by experience, resonating and empirical investigation. This chapter is divided in to following section:

1. Conceptual Review
2. Review of related Studies

2.1 Conceptual Review

Liquidity is an important financial tools for the banks. Liquidity ratio measurement is an important tool to measure the financial performance of the firms. Bank has keep certain amount of deposits as liquidity for payment of deposits at call time. If the bank keep by liquidity is meant the readiness with which the bank can convert the assets into cash. Liquidity means short-term solvency of the borrower. A banker is essentially the lender of short-term funds because he knows that the bulk of his deposits are repayable on demand or at short notice. As the banker's deposits are subject to the legal obligation of being repayable on demand and at short notice, he must ensure liquidity also while lending, so that in times of need, he will be able to convert the assets into cash.

Liquidity is defined as bank's capacity to pay cash in exchange of deposits. Liquidity and Profitability are interlinked with each other in banking business. Inadequate liquidity may lead to collapse of the bank while excess liquidity is detrimental bank's profitability. In order to remove demerits associated with maintaining inadequate and excess liquidity, banks should maintain optimum level of liquidity ratio. Banks has to keep liquidity according to the directives and guidelines of Nepal Rastra Bank (NRB Act, 2058).

2.1.1 Meaning of Liquidity

Liquidity means allocation of funds in close relation to their respective source. Liquidity is the status and parts of the assets that can be used to meet the obligation in the commercial banks. Liquidity can be viewed in terms of liquidity stored in the balance sheet and in terms of liquidity available through purchased funds (Bhandari, 2004: 143).

The amount of liquidity that a commercial bank or the commercial banking system should maintain is one of the basic problems of the bank management. If too much liquidity is maintained, it means that the bank and the banking system are foregoing income. Too, little, however, may be fatal not only to an individual bank but to the commercial banking system as a whole, the financial structure of the country, and the economy of the nation. Too little liquidity and the demands of the depositors in the form of 'runs' on the banks are like oil and water, they do not mix well.

Liquidity means a matter of maintaining what the bank has promised to pay the depositors - cash. In the banking system primary reserves are known as legal reserve and working reserves. The term is economic rather than accounting concept. Legal reserves are the requirement of monetary authority. Bank management, student of banking studies and monetary authority are referring the other names for primary reserve to designate certain ideas and concept regarding banks' assets. Primary reserves include non earning assets such as cash in vault, the deposits carried out by banks with correspondent banks and central bank, and cash items. The cash items represent cheques held on in process of collection by the banks. The objective of primary reserves in banking system is maintaining liquidity and solvency.

Liquidity denotes the money in use, in the current account, saving account, fixed account and the money in margin account of the economics system, But, definition is not made by the Nepal Rastra Bank Act 2058/2002, the Commercial Bank and Financial Act 2063. But the definition about what "liquid assets" means is found in the acts. Liquid assets means, the cash balances of the bank, the balance held by a bank in the Nepal Rastra Bank and liquidity appeared in economy (NRB Act, 2058).

The commercial banks or financial institutions should keep the stock of liquid asset according to the ratio of liability of deposit fixed by the bank. Section 25 of the Finance Company Act, 2042 (1985), reads as follows for the purpose of this section the term liquid assets means the assets mentioned as follows:

1. Nepalese bank notes and currencies deposited in the co.
2. Deposits of the company in the bank or any other commercial banks.
3. Bonds of his Majesty's Government.
4. Any other assets as specified by the bank from time to time.

For the first time, the NRB has implemented the monetary Policy by issuing the rules of credit control in 31st Shrawan 2031 B. S. (1974). This rule has defined the liquid asset of the commercial banks. It had regarded liquid asset at the cash stock of the commercial banks, short-term security and short bills. It is clear from it that the liquid assets mean the cash and the assets, which can be converted immediately in the time of need.

2.1.2 Importance of Liquidity

A bank can't be run without liquidity. The Nepal Rastra Bank from time to time changes the legal provision about the liquidity. The compulsion that the commercial banks should keep the cash in their various funds shows the importance of liquidity. The commercial banks and financial institutions should maintain the balance of cash fund in required quantity that the law and rules made by the Nepal Rastra Bank. The importance of the liquidity is considered very sensitive because if it cannot maintain the liquidity, it has to pay fine. The commercial banks financial institutions should keep the stock of liquid assets in the ratio of their deposit liability, as fixed by the Nepal Rastra Bank. The central bank can give the interest with the rate fixed by the bank from time to time to the amount in the fund (Bhandari, 2004: 146).

The following statements capture the importance and interactions of liquidity and confidence. Liquidity always comes first: without it a bank doesn't open its doors: with it, a bank may have time to solve its basic problems (Howard, 1983: 275).

a) To Meet the Expenses for the Bank's Daily Administrative Work

A bank is a legal person. It can't run without, cash stock. The transaction of bank is related to the money. Many types of expense go on taking place in the bank daily. With the lack of expenses, it is nearly impossible for the bank to do its transaction. So the liquidity is necessary for daily expenses that it is spent in an administrative function. The administrative expenditure can't be fulfilled without liquidity. Hence Liquidity is importance for the banks.

b) To pay all Sorts of Deposit

A bank opens the current, saving and fixed account for its customer's and accepts the deposit from the customers. According to the nature of the deposit, the banks should pay in the time when the customers ask. The liquidity needs for it. It can't pay the deposit without liquidity. That is why liquidity is necessary for the payment of all types of deposits.

c) To Maintain Liquidity to Meet the Cash Fund Ratio and Legal Liquidity Ratio

The commercial banks should keep 3% cash as a treasury account in their own account in the banks from the liability of the total deposit and likewise by opening an account in the Nepal Rastra Bank, 7% of the liability of current and saving accounts and 4.5% of the fixed accounts should keep in the Nepal Rastra Banks' account in their own name. In addition to it, there are some small funds in the bank. There, is an addition to it. There are some small funds in the bank. There, is an obligation on a bank to keep cash (money) in such fund. Therefore, to fulfill, all these demands or to keep (maintain) the balance, liquidity is necessary.

d) To Control the Economic Fluctuation and to Keep Safe from the Risk

It can't be said, there will be the same situations of transactions in the bank and the bank will always remain in balanced condition. There will be effect of internal and external circumstances in the nation. Such conditions may have effect on economic sector. The commercial banks too can't remain safe from the effect of economic sector. There is necessity of liquidity to keep the bank free from such economic rise and fall or economic crisis. The bank should maintain some liquidity of some certain percent cash fund to keep safe from such situations.

e) To Fulfill the Demand of the Debtor

A bank provides loan to debtors and earns income from it. Many kinds of people come to the banks with the purpose of loan. After the loan is granted, the bank is obliged to give the loan is granted, the bank is obliged to give the loan to the debtor. Therefore, there is necessity of liquidity in bank to provide fresh loan to the debtors.

f) To Gain Trust or Faith

A bank has a great responsibility because of the financial institution that does monetary transactions. It must gain trust in its banking transaction. For this, a bank should do many types of functions. It has to pay attention to the time and the will of customers, to provide the banking services. For the name and fame, a bank should earn the trust. There must be liquidity to gain trust, from the public including other sectors.

g) Providing Security to the Banks

A bank is a sensitive institution because it is an institution of banking transaction. Hence, the deposits are deposited in different types of account of common people, industrialists and businessmen. Apart from it, the bank itself invests the cash in different sectors. The cash as a form of loan can be distributed in different sectors from the bank. So, the bank is regarded as a sensitive and important institution. Such institutions can be saved from the various risks at any situation. Hence, to provide all kinds of security to the bank, the liquidity is necessary.

2.1.3 Principles or Theories of Liquidity Management

There are apparent conflicts between objectives of liquidity, safety and profitability relating to a commercial bank. Economists have tried to resolve these conflicts by laying down certain theories from time to time. These principles or theories, in fact, 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.

2.1.3.1 Commercial Loan Theory or Real Bills Doctrine

This theory is evolved in early 1920s (Sinkey, 1983: 240). The real bills doctrine states that a commercial 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. When such goods are ultimately sold, the loans are considered to liquidate themselves automatically (Sinkey, 1983: 240). Such short-term self-liquidating productive loan passes three advantages. First, they possess liquidity that is why, they liquidate themselves automatically. Second, since they mature in the short run and are for productive purposes, there is no risk of their running into bad debts. Third, being productive such loans earn income for the banks.

2.1.3.2 Asset Conversion or the Shiftability Theory

This theory is developed in second half of 1940s. H.G. Moulton, who asserted that if the commercial banks maintain a substantial amount of assets that can be shifted on to the other banks for cash without material loss in case of necessity, then there is no need to rely on maturities, propounded the shiftability theory of bank liquidity. According to this view, an asset to be perfectly shiftable must be immediately transferable without capital loss when the need for is immediately transferable without capital loss when the needs for liquidity arise. But in a general crisis requires that all banks should possess such assets, which can be shifted on the central bank, which is the lender of the last resort. This theory has certain elements of truth (Bhandari, 2004: 148).

But it has its weakness. First, mere shiftability of assets does not provide liquidity to the banking system. It entirely depends upon the economic circumstances. Second, the shiftability theory ignores the fact that in times of acute depression, the shares and debentures can't be shifted on to others by the bank. In such a situation, there are not buyers and all who possess them want to sell them. Third, a single bank may have shiftable assets in sufficient quantities but if it tries to sell them when there is a run on the bank, it may adversely affect the entire banking system. Fourth, if all the banks simultaneously start shifting their assets, it would have disastrous effect on both the lenders and borrowers (Bhandari, 2004: 148).

2.1.3.3 The Anticipated Income Theory

The anticipated income theory developed by H.V. Proch in 1950 on the basis of the practice of extending term loans by the USA commercial banks. According to this theory, regardless of the

nature and character of a borrower's business, the bank plans the liquidation of the long-term loan from 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 restrictions on the financial activities of the borrower while granting this loan. At the time of granting a loan, the bank takes into consideration not only the security but the anticipated earnings of the borrower. In fact, the anticipated income is the main consideration.

This theory is superior to the real bills doctrine and the shiftability theory because, it fulfills the three objectives of liquidity, safety and profitability. Liquidity is assured to the bank when the borrower saves and repays the loan regularly in installments. 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 and is assured of a regular income. Lastly, the term-loan is highly beneficial for the business (Bhandari, 2004: 149).

1.1.3.4 The Liabilities Management Theory

This theory was developed in late 1960s and early 1970s, According to this theory, there is no need for banks to grant self-liquidating loans and keep liquid assets because they can borrow reserve money in the money market in case of need. A bank can acquire reserves by creating additional liabilities against it, from different sources. These sources include the issuing of time certificates of deposit, borrowing from other commercial banks borrowing from the central bank, raising of capital funds by issuing shares, and by ploughing back of profits (Sinkey, 1983: 240).

i) Time Certificates of Deposits:

Time certificates of deposits are negotiable in the money market. So a bank can have access to liquidity by selling them in the money market. But there are two limitations. First, if during a boom, the interest rate structure in the money market is higher than the selling rate set by the central bank, time deposit certificates can't be sold in the market. Second, they are not dependable source of funds for the commercial banks. Bigger commercial banks are at an advantage in selling these certificates because they have larger certificates, which they can afford to sell at even low interest rate.

ii) Borrowing from Other Commercial Banks:

A bank may create additional liabilities by borrowing from other banks having excess reserves. But such borrowings from banks having excess reserves are only for a very short duration, for a day or week at the most. The interest rate of such borrowings depends upon the prevailing rate in the money market. But borrowings from other banks are only possible during normal economic conditions.

iii) Borrowing from the Central Bank:

Banks also create liabilities on themselves by borrowing from the central bank of the country. They borrow to meet their liquidity needs for short term and by discounting bills from the central bank. But such borrowings are relatively costlier than borrowing from other sources,

iv) Raising Capital Funds:

Commercial banks acquire funds by issuing debentures. But the availability of funds through this source depends on the amount of dividend or interest rate, which the bank is prepared to pay. Usually the banks are not in a position to pay rate higher than paid by manufacturing and trading companies. So they are not able to get sufficient funds from this source.

v) Ploughing Back of Profit:

Another source of liquid funds for a commercial bank is the ploughing back of its profits. But how much it can get from this source will depend upon its rate of profit and dividend policy. It is larger banks that can depend on this source rather than the smaller banks.

2.1.4 The Demand for and Supply of Bank Liquidity

A bank need for liquidity-immediate spendable funds-can be viewed within a demand supply framework. What activities give rise to the demand for liquidity inside a bank and what source can the bank rely upon to supply liquidity when spendable funds are needed are to be considered sincerely. For most banks, the most pressing demands for spendable funds come from two sources:

(1) customers withdrawing money from their deposits, and (2) credit requests from customers the banks wish to keep, either in the form of new loan requests, renewals of expiring loan

agreements, or drawings upon existing credit lines. Other sources of liquidity demand include paying off obligations arising from bank borrowings, such as loans the bank may have received from other banks or from the central bank (i.e., the Federal Reserve, Central Bank). Similarly, payment of income taxes or cash dividends to the bank's stockholders periodically gives rise to a demand for immediately spendable cash. Following table shows more clearly (Ross, 2002: 347).

Table: 2.1

Source of Demand and Supply for Liquidity within the Banks

Supplies of liquid funds come from:	Demand for bank liquidity arise from:
Incoming customer deposits	Customer deposit withdrawals
Revenues form the sales of non deposit services	Credit request from quality loan customers
Customer loan repayments	Repayment of non deposit borrowings
Sales of bank assets	Operating expenses and taxes incurred in producing and selling services
Borrowing from the money market	Payment of stockholder cash dividends

Source: Ross (2002), Commercial Bank Management, McGraw Hill Book Company, New York

To meet the foregoing demands for liquidity, banks can draw upon several potential sources of supply. The most important source normally is receipt of new customer deposits, both from newly opened accounts and from new deposits placed in existing accounts. These deposit inflows are heavy the first of each month as business payrolls are dispensed, and they may reach a secondary peak toward the middle of each month as bills are paid and other payrolls are met. Another important element in the supply of bank liquidity comes from customers repaying their loans, which provides fresh funds for meeting new liquidity needs, especially marketable securities, from the bank's investment portfolio. Liquidity also flows in from revenues generated by selling non-deposit services and from borrowings in the money market. These various sources of liquidity demand and supply come together to determine each bank's net liquidity position at any moment in time. That net liquidity position at time 't' is as follows.

Table: 2.2

Net Liquidity Position Calculation Table

A. Supplies of Liquidity Flowing into the Bank:	
Income deposit (inflow)	
+ The sales of non deposit services	.....
+ Revenues from the sale of non deposit services	.....
+ Customer loan repayment	.....
+ Sales of bank assets	.....
+ Borrowings from the money market	
B. Demand on the Bank for Liquidity	.....
Deposit withdrawals (Outflows)	
+ Volume of acceptable loan requests	.....
+ Repayments of bank borrowings	.....
+ Other operating expenses	.....
+ Dividend payments to bank stockholders	.....
c. A bank's net liquidity position (Lt) (A-B)	.....

Source: Ross (2002), commercial Bank Management, McGraw Hill Book Company, New York, p. 349

When the bank's total demand for liquidity exceeds its total supply of liquidity (i.e. $L_t < 0$), management must prepare for a liquidity deficit, deciding when and where to raise additional liquid funds. On the other hand, if at any point in time the total supply of liquidity to the bank exceeds all of its liquidity demands (i.e. $L_t > 0$), management must prepare for a liquidity surplus, deciding when and where to profitably invest surplus liquid funds until they are needed to cover future liquidity demands. Liquidity has a critical time dimension. Some bank liquidity needs are immediate or nearly so. For example, several large CDs may be due to mature tomorrow, and the customers may have indicated that they plan to withdraw these deposits rather than simply rolling them over into new deposits. Sources of funds that can be accessed immediately, such as borrowing reserves from another bank, must be used to meet these near-term liquidity pressures.

Longer-term liquidity demands arise from seasonal, cyclical, and trend factors. For example, liquid funds are generally in greater demand during the fall and summer coincident with school,

holidays, and customer travel plans. Anticipating these longer-term liquidity needs, bankers can draw upon a wider array of alternative sources of funds than is true for immediate liquidity needs, such as selling off accumulated liquid assets, aggressively advertising the bank's current menu of deposits and other services, or negotiating long-term borrowings of reserves from other banks. Of course, a bank need not meet all demands for liquidity by selling assets or borrowing new money. For example, just the right amount of new deposits may flow in, or loan repayments from borrowing customers may occur very close to the date that new funds are needed. Timing is critical to liquidity management: bankers must plan carefully how, when, and where needed liquid funds can be raised.

Most liquidity problems in banking arise from outside the bank as a result of the financial activities of its customers. In effect, customer's liquidity problems gravitate towards their banks. If a business is short on liquid reserves, for example, it will ask for a loan or draw down its deposit balances, either of which will require the firm's bank to come up with additional funds. A dramatic example of this phenomenon occurred in the wake of the worldwide stock market crash in October 1987. Investors who had borrowed heavily to buy stock on margin were forced to come up with additional funds to secure their stock loans. They went to their banks in huge numbers, turning a liquidity crisis in the capital market into a liquidity crisis for banks.

The essence of the liquidity management problem for a bank may be described in two succinct statements (Ross, 2002).

1. Rarely are the demands for bank liquidity equal to the supply of liquidity at any particular moment in time. The bank must continually deal with either a liquidity deficit or a liquidity surplus.
2. There is a trade-off between bank's liquidity and profitability. The more bank resources are tied up in readiness to meet demands for liquidity, the lower is that bank's expected profitability (other factors held constant)

Thus, ensuring adequate liquidity is a never-ending problem for bank management that will always have significant implications for the bank's profitability. Liquidity management decision cannot be made in isolation) from all the other service areas and department of the bank.

Moreover, resolving liquidity problems subjects a bank to costs, including the interest cost on borrowed funds, the transactions cost of time and money in finding adequate liquid funds, and an opportunity cost in the form of future earnings that must be forgone when earning assets are sold in order to help meet a bank's liquidity needs. Clearly, management must weigh these costs against the immediacy of the institution's liquidity needs. If a bank winds up with excess liquidity at any time, its management must be prepared to invest those excess funds immediately to avoid incurring an opportunity cost from idle funds that are not generating earnings for the bank.

From a slightly different vantage point, we could say that management of bank liquidity is subject to the risk that interest rates will change (interest rate risk and the risk that liquid funds will not be available in the volume needed by the bank (availability risk). If interest rates rise, financial assets that the bank plans to sell to raise liquid funds, such as government bonds, will decline in value, and some must be sold at a loss. Not only will the bank raise fewer liquid funds from the sale of those assets, but the losses incurred will reduce bank earnings as well. Then, too, raising liquid funds by borrowing will cost more as interest rates rise, and some forms of borrowed liquidity may no longer be available to the bank. If the lenders of liquidity perceive a bank to be more risky than before, that bank will be forced to pay higher interest rates to borrow liquidity, and some lenders will simply refuse to make liquid funds available at all (Ross, 2002).

2.1.5 Why Bank Faces Liquidity Problem

It should be clear from the foregoing discussion that banks face major liquidity problems. The significant exposure of banks to liquidity pressures arises from several sources. First, banks borrow large amounts of short-term deposits and reserves from individuals and businesses and from other lending institutions and then turn around and make long term credit available to their borrowing customers. Thus, most banks face some imbalances between the maturity dates on their assets and the maturity dates attached to their liabilities. Rarely will incoming cash flows from assets exactly balance the cash flowing out to cover liabilities. A problem related to the maturity mismatch situation is that banks hold an unusually high proportion of liabilities subject to immediate payment, such as demand deposits, NOW accounts, and money market borrowings. Thus, banks must always stand ready to meet immediate cash demands that can be substantial at

times, especially near the end of a week, at the first of each month, and during certain seasons of the year.

Another source of liquidity problem is the bank's sensitivity to changes in interest rates. When interest rates rise, some depositors will withdraw their funds in search of higher returns elsewhere. Many loan customers may postpone new loan request or speed up their drawing on those credit lines that carry lower interest rates. Thus, changing interest rates affect both customers demand for deposits and customer demand for loans, each of which has a potent impact on a bank's liquidity position. Moreover, movements in interest rates affect the market values of assets the bank may need to sell in order to raise additional liquid funds, and they directly affect the cost of borrowing in the money market. Beyond these factors, a bank must give high priority to meeting demands for liquidity. To fail in the area may severely damage public confidence in the institution. We can imagine the reaction of bank customers if the teller windows and teller machine had to be closed one morning because the bank was temporarily out of cash and could not cash cheques or meet deposit withdrawals (as happened to a bank in Montana several years ago, prompting a federal investigation). One of the most important tasks of a bank's liquidity manager is to keep close contact with the bank's largest depositors and holders of large unused credit lines to determine if and when withdrawals of funds will be made and to make sure adequate funds are available.

2.1.6 Factors Affecting Needs of Bank Liquidity

Basically, need of bank liquidity is affected by the following factors.

A) External Environmental Factors

1. **Prevailing Interest Rate:** If bank interest is high, the demand of cash is low that why there will be low liquidity needs.
2. **Saving and Investment:** High level of income and saving produce low level of liquidity and high level of investment produce high level of liquidity needs.
3. **Growth and Slackening Position of the Financial Market:** Growth and progress of economic and financial market produce low level of liquidity needs but opposite to this slackening position of economic and financial market produces high liquidity needs.

B) Internal Environmental Factors

1. **Lending Policy of Bank:** High level of liquidity requires to the bank if it has adopted a long term or mid term loan policy. Otherwise low level of liquidity requirement is applicable for the short-term investment policy adopting bank.
2. **Management Capacity:** low level of liquidity needs to high-risk bearing and capable risk handling management. Other high level of liquidity needs for risk averter and relatively low capable or inefficient management.
3. **Strategic Planning and Fund Flow Situation:** Liquidity needs is affected by bank's investment policy, strategic planning and objectives. It is also affected by the funds flow situation and lending policy. If the bank has collected more amount in current account relatively there will be high level need of liquidity otherwise there is low level of need of liquidity. It depends on maturity matching of assets and liability of banks.

2.1.7 Criterion for Measuring Bank Liquidity

It is very important to study criteria for measuring bank liquidity. The bank liquidity is the most important aspect of a bank. If there is less bank liquidity, the bank can't be run. If there is much liquidity, the bank should, bear great loss economically. Both high liquidity and low liquidity are not good omen for the bank. The bank should be able to keep the liquidity in balance. This is very difficult task. However the bank liquidity can be measured by the following criterion.

a) Deposit Investment Ratio

We can measure the liquidity by the deposit investment ratio. The depositor's deposit the cash in the current, saving and fixed accounts. The bank receives the most liquidity as deposit. The bank invests the capital collected by deposit in various profitable and productive sectors in the form of loan by earning much profit from it. The bank has the nature of paying lower interest to the depositors and taking higher interest from the place it invested. And the bank doesn't invest all the cash as loan. Apart from the deposit invested, the bank also has other cash. We can find out the criteria of liquidity from it.

b) Investment in Assets

The criteria of measuring liquidity in a bank, depends on the type of asset, which the bank has

made investment. The bank doesn't waste cash stock received from different source of capital. The bank can invest the money, it possesses in different types of assets: such as house land for the bank and other permanent sorts of assets. In such condition, the bank has low liquidity because the investment made in such nature of assets needs much cash. And the bank gains income very low from such nature of assets. But in contrast to it, if the bank has invested in the share of various companies, the investment in government securities and treasury bills and in the debentures of different business institution, bank liquidity is abundant. In this way, the investment that the bank did can be used as the criteria of measuring liquidity.

c) Cash Reserve Ratio

The cash Reserve Ratio too can be taken as criteria of measuring bank liquidity. The commercial bank should maintain the cash reserve ratio as fixed by the central bank by opening an account in central bank and also should maintain the statutory liquidity ratio, in its own treasury. It changes from time to time. We can measure the bank liquidity from this too.

d) Profitability

The bank should be able to earn income from the medium of investment because it is a legal person. The objective of the bank is intensified with the concept of gaining profit. The bank should invest its money to gain the profit. The bank can invest in various ways. A great lead of cash is deposited in a bank form different accounts as deposit. The bank invests as loan, the cash fund and the cash collected from other various sources. In addition to it, the bank spreads its investments in various profitable sectors. The bank provides various banking services to its customers. The bank becomes successful if it: generates income from such all investments and functions. But the bank certainly provides little interest to the account holders who deposit the money in the bank. We can guess the liquidity from the profit of a bank has gained.

e) Investment in Loan

The bank distributes loans in different sectors. The source of loan investment is Important for the various sources of income of the bank. It is an important to know what sort of loan and how much loans the bank has distributed. While the bank distributes the loan. If the bank is intensified with the concept of gaining profit, the bank flows loans on a long term and mid term

basis. If it has paid its attention to the safety, it invests in short term loan. If a great deal of amount is invested in the short-term loan, bank retains high liquidity. If it has invested in long term, mid term, there is lower liquidity. Thus, loan investment too can be the criteria of measuring the liquidity.

f) Structure of Bank

The organizational structure of a bank: i.e. division, sub division, branches too gives speculation of bank liquidity. If the structure of the bank is in single nature, there is higher liquidity in the bank. If the banks have many branches liquidity is lower because the liquidity remains scattered in different branches and sub ranches. In this way, we can find out the bank liquidity from the structure and the organization structure of a bank.

g) Position of Business

The business organization, institution and companies have special role in the rising and falling of a bank's investment. If the bank is in the position of profit in investment the investors come to the bank with the proposal for loans. The bank too invests by evaluating the business, its investment time and situation. On the contrary to it, the bank goes on lessening the loan, if the position of business time and situation is not good. If the business environment is good, liquidity remains low. If the business environment is not good, liquidity remains high in the bank. In this way the position of business can be the medium to guess the criteria of measuring liquidity.

2.1.8 Strategies for Liquidity Management in Existing Practice

Nepal Rastra Bank implements monetary policy to extend or narrow the loan flowing capacity of commercial banks to manage the liquidity foreign capital and internal loan are the main reason of liquidity growth. It becomes impossible for the central bank to control the growth of the forcing Capital by the implementation of the monetary policy. The central bank use its monetary policy with its internal loans because the main sources of flowing internal loans are the commercial banks and they use the monetary policy as a main device of managing liquidity. In managing the liquidity, the central bank pays attention main device of managing liquidity. In managing the liquidity, the central bank pays attention mainly in two aspects.

- a) Not to make less liquidity which is necessary for the commercial banks to run their

transactions?

- b) To save the economy from the sustainable effect, that causes to arise, the high liquidity and the liquidity crisis.

The commercial banks should attract the deposit because it is called the raw materials of banking without which the commercial bank can't run. A decision to the effect that in which sector the deposit shall be flowed is important. The amount of the current account is the most important liability for commercial banks. But, it should return immediately at the time of demand. So, there must be a liquid fund. Though the, loan and advance are the most profitable sector in the side of asset. It is not be recovered at the time of demand. Therefore, to make arrangements for liquid assets from its own assets, to give loan, to fix the quantity of investment and to make the coordination between the assets and liquidity are the most important factor for a commercial bank. The central bank too pays attention to this fact while giving the instruction about liquidity to the commercial banks. In preparing the strategy of liquidity management, the bank should consider many factors. If the banks fail to prepare a good strategy, it can be an in fortunate event for the bank. Bank liquidity has a great importance. Therefore, bank should set the following strategies for the management liquidity.

a) Strategy Relating to Deposit

The bank can allow opening current, saving and fixed accounts for its customers. Common people, organization and institution in the banks according to their need, they can deposits the cash. Such cash may be accumulated in a great deal as deposit in the banks. The banks should do all works like determination of how "much money will be deposited, which account and what interest rate shall be maintained for which deposit and fixing of minimum and maximum period of the deposits. To set the strategy of liquidity it can analyze the amount accumulated as deposit. It is an internal matter of banks to set up their strategy for the management of liquidity from this the bank may get success in its goal.

b) Strategy Relating to Investment

The bank can't invest if there is scarcity of liquidity. But the bank should invest to gain profit. For this purpose, the liquidity is necessary. The commercial banks are established with the objective of earning profit. So, the bank can't meet its goal in lack of liquidity. Keeping the

stock, a bank needs daily liquidity; the bank should set the strategy to invest the rest of the cash fund.

c) Strategy Relating to Reserve Fund

A bank should deposit money in different funds. There is some fund in which it should compulsorily deposit cash. If it can't deposit the amount these funds, it will have to face a disaster. It should be able to manage liquidity well to save itself from such disaster. It establishes a reserve fund. Some percent of amount gained from profitability is kept in this reserve fund. The bank should set a strategy on such subject as how much cash is to be kept in a bank from the amount of such reserve and how much is to be flowed as investment.

d) Strategy Relating to Dividend

A bank distributes some dividend from profit to its shareholders. But if it lacks liquidity it can issue share certificates instead of distribution of cash. But the bank management should understand that whether such condition prevail in the bank or not. If there is scarcity of liquidity, it should precede the strategy of distributing the share certificates. It is better to set the strategy of distributing the cash, if there is adequate liquidity in the bank.

e) Strategy Relating to Capital

After a bank is established, it needs capital for its operation. It can open another branch or sub branches. It may need a lot of capital for this. In such condition, the bank can collect a capital by issuing its shares and debenture. Some how, it lessens the problem from liquidity. The bank should adopt a strategy whether it should issue the shares, debenture or not.

In this way, the bank can carryout a healthy transaction by adopting abovementioned strategies for management of liquidity. There is also a provision to pay fine, if the cash stock is less than prescribed by the NRB. Hence the management of liquidity is really significant aspect for the banks for the purpose of maintaining liquidity in balance.

2.1.9 Practice of Liquidity Management in commercial Banks

Nepal Rastra Bank (NRB) is the regulatory body of the banking industry. NRB issues the rules

and regulations to facilitate the banking operation in Nepal like other regulations. There is a regulation for maintaining liquidity by commercial banks. Revision in monetary policy and operational procedure is continuation from time to time. The regulation is called Cash Reserve Ratio (CRR). It is directly related to the liquid assets of commercial banks. The regulation specifies the cash reserve ratio of commercial to central bank and its own vault to operate day-to-day operation (transaction). It is a policy instrument of central bank for money supply. Money supply is a variable of monetary policy through which the bank plans to maintain adequate liquidity in the economy. It changes as per the requirement of the economy. According to the central bank's regulation, commercial banks need to consider the following rule to calculate CRR (NRB Act, 2058).

Total deposit means current saving and fixed deposit account as well as call money deposit and certificate of deposit (CD). For this purposes, deposits held in convertible foreign currency, Employee guarantee amount and Margin account would not be included.

- a) Fixed deposit means a deposit in local currency accepted with a condition to repay on completion of stipulated time period.
- b) Current and saving deposit means all deposit accounts other than fixed deposit.
- c) Cash in vault shall include only the local current and foreign currency (except clearing cheque)

A complete procedure for compliance test is in place. Failure in any respect under the regulation is liable to pay penalty at a very high rate of interest. Procedures for compliance test are as follows:

- a) The cash reserve requirement shall be examined on a weekly basis.
- b) The balance held in ordinary account with NRB shall be eligible for inclusion in cash reserve. Balance held with NRB in special accounts opened for specific purpose and foreign currency accounts shall not be included for this purpose.
- c) Any amount of local currency fund transfer meant to be credited in the account with NRB and lying in transit shall be included in the balance held with NRB.
- d) The cash reserve requirement shall be examined against the average weekly balance of deposit liabilities of immediately preceding 4th week. In case of full holiday in the preceding 4th week, the average deposit of immediately preceding 5th week shall be considered.

- e) For the purpose of calculation of weekly average of total deposit, cash balance in vault and balance held with NRB, the total aggregate amount of daily balance from Monday through Friday should be divided by five. In case a holiday falling in the week, the balance of the preceding day shall be considered as the balance for the day.
- f) In case of full holidays during the entire week, cash reserve requirement for the week shall not be calculated.
- g) For the purpose, all branches offices of the bank shall constitute as one unit.
- h) The central bank monitors that the regulation is followed or not.

2.2 Review of Related Studies

The core concept of liquidity management and factors affecting to liquidity position in the commercial banks, very negligible studies have been made. During the study the following independent studies have reviewed about liquidity management in Joint venture commercial banks. In present scenario Nepalese commercial bank have been facing liquidity problems. So it is being vital problem of commercial banks. Many scholars have been viewed about liquidity crunch.

2.2.1 Review of NRB Directives

2.2.1.1 About Liquidity Management

A. Cash Reserve Ratio (CRR)

The reserve provision of certain percentage of deposit in own vault and certain percentage with Nepal Rastra Bank is known as CRR. The CRR rate depends on the monetary policy of NRB and it is modified time to time as per the requirement of economy. It is a tool of monetary policy. Nepal Rastra Bank had started to declare CRR from 1 Ashwin 2023, currently the bank should maintain it is 6.0% of CRR.

B Statutory Liquidity Ratio (SLR)

SLR is another instrument of monetary policy. SLR is known as a legal liquidity reserve of commercial banks. It is a certain percentage of deposit as directives issued by NRB. The concept of SLR is evolved from 2031 B.S. in Nepal. At the starting the rate of SLR was 32% of total deposit. But, this provision is repealed in 2050 B.S. Now, from 2060/61 only CRR rate is in

practice in Nepal. Currently the SLR to be maintained by the banks is 15% of its total deposit.

C Provision to Minimize Liquidity Risk

Commercial banks should separate its assets and liabilities based on time interval of maturity period in order to minimize the liquidity risk. Commercial banks shall be liable to report this liquidity profile to the Banking Inspection and Supervision department and Bank Management department quarterly (i.e. the end of Ashwin, Poush, Chaitra and Ashadh). The time interval of maturity period is calculated as follows: (www.nrb.org.np)

1. 0-90 days maturity period assets and liabilities
2. 91-180 days maturity period assets and liabilities
3. 181-270 days maturity period assets and liabilities
4. 271-365 days maturity period assets and liabilities
5. More than 1-year days maturity period assets and liabilities

Provision for having infinite maturity period assets and liabilities:

- a) Out of total current deposit core deposit and compensating balance should be included in the more than one-year maturity period time interval.
- b) Current deposit is considered as core deposit.
- c) Saving deposit is considered as long-term liabilities and included in more than one-year maturity period interval.
- d) The commercial banks should calculate the difference of interval-wise assets and liabilities. The cumulative difference may be positive or negative.

2.2.1.2 Practice of Liquidity Management in Joint Venture Banks

Nepal Rastra Bank (NRB) is the regulatory body of the banking industry. NRB issues the rules and regulations to facilitate the banking operation in Nepal like other regulations. There is a regulation for maintaining liquidity by commercial banks. Revision in monetary policy and operational procedure is continuation from time to time. The regulation is called Cash Reserve Ratio (CRR). It is directly related to the liquid assets of commercial banks. The regulation specifies the cash reserve ratio of commercial to central bank and its own vault to operate day-to-day operation (transaction). It is a policy instrument of central bank for money supply. Money

supply is a variable of monetary policy through which the bank plans to maintain adequate liquidity in the economy. It changes as per the requirement of the economy. According to the central bank's regulation, commercial banks need to consider the following rule to calculate CRR (NRB Act, 2058).

Total deposit means current saving and fixed deposit account as well as call money deposit and certificate of deposit (CD). For this purposes, deposits held in convertible foreign currency, Employee guarantee amount and Margin account would not be included.

- d) Fixed deposit means a deposit in local currency accepted with a condition to repay on completion of stipulated time period.
- e) Current and saving deposit means all deposit accounts other than fixed deposit.
- f) Cash in vault shall include only the local current and foreign currency (except clearing cheque)

A complete procedure for compliance test is in place. Failure in any respect under the regulation is liable to pay penalty at a very high rate of interest. Procedures for compliance test are as follows:

- i) The cash reserve requirement shall be examined on a weekly basis.
- j) The balance held in ordinary account with NRB shall be eligible for inclusion in cash reserve. Balance held with NRB in special accounts opened for specific purpose and foreign currency accounts shall not be included for this purpose.
- k) Any amount of local currency fund transfer meant to be credited in the account with NRB and lying in transit shall be included in the balance held with NRB.
- l) The cash reserve requirement shall be examined against the average weekly balance of deposit liabilities of immediately preceding 4th week. In case of full holiday in the preceding 4th week, the average deposit of immediately preceding 5th week shall be considered.
- m) For the purpose of calculation of weekly average of total deposit, cash balance in vault and balance held with NRB, the total aggregate amount of daily balance from Monday through Friday should be divided by five. In case a holiday falling in the week, the balance of the preceding day shall be considered as the balance for the day.
- n) In case of full holidays during the entire week, cash reserve requirement for the week shall not be calculated.

- o) For the purpose, all branches offices of the bank shall constitute as one unit.
- p) The central bank monitors that the regulation is followed or not.

2.2.1.3. Managing Liquidity Risk

Liquidity risk is the potential for loss to a bank arising from either its inability to meet its obligations or to fund increases in assets as they fall due without incurring unacceptable cost or losses.

Overview

Liquidity is the ability of an institution to transform its assets into cash or its equivalent in a timely manner at a reasonable price to meet its commitments as they fall due. Liquidity risk is considered a major risk for banks. It arises when the cushion provided by the liquid assets are not sufficient enough to meet its obligation. In such a situation banks often meet their liquidity requirements from market. Funding through market depends upon liquidity in the market and borrowing bank's liquidity. Liquidity risk can best be described as the risk of a funding crisis. Plan for growth and unexpected expansion of credit can be the main sources of such funding crisis. Banks with large off-balance sheet exposures or the banks, which rely heavily on large corporate deposit, have relatively high level of liquidity risk. Further the banks experiencing a rapid growth in assets should have major concern for liquidity. Fundamental principles for the management and supervision of liquidity risk

Principle 1: A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.

Principle 2: A bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy and its role in the financial system.

Principle 3: Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. A bank's board of directors should review and approve the strategy; policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.

Principle 4: A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on and off-balance sheet), thereby aligning the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.

Liquidity risk should not be seen in isolation, because financial risks are not mutually exclusive and liquidity risk often triggered by consequence of these other financial risks such as credit risk, market risk etc. For instance, a bank increasing its credit risk through asset concentration etc may be increasing its liquidity risk as well. Similarly a large loan default or changes in interest rate can adversely impact a bank's liquidity position. Further if management misjudges the impact on liquidity of entering into a new business or product line, the bank's strategic risk would increase.

Principles for Sound Liquidity Risk Management and Supervision, BCBS Risk Management Guidelines

2. Liquidity Risk Indicators

Given below are some early warning indicators that have potential to ignite liquidity problem for a bank. Bank management needs to monitor carefully such indicators and exercise careful scrutiny wherever it deems appropriate. Examples of such internal indicators are:

-) A negative trend or significantly increased risk in any area or product line.

-) Concentrations in either assets or liabilities.
-) Deterioration in quality of credit portfolio.
-) A decline in earnings performance or projections.
-) Rapid asset growth funded by volatile large deposit.
-) A large size of off-balance sheet exposure.
-) Deteriorating third party evaluation (negative rating) about the bank and negative publicity.
-) Unwarranted competitive pricing that potentially stresses the banks.

3. Liquidity Risk Management

The formality and sophistication of risk management processes established to manage liquidity risk should reflect the nature, size and complexity of a bank's activities. Sound liquidity risk management employed in measuring, monitoring and controlling liquidity risk is critical to the viability of any bank. Banks should have a thorough understanding of the factors that could give rise to liquidity risk and put in place mitigating controls.

A liquidity risk management involves not only analyzing banks on and off-balance sheet positions to forecast future cash flows but also how the funding requirement would be met. The later involves identifying the funding market the bank has access, understanding the nature of those markets, evaluating banks current and future use of the market and monitor signs of confidence erosion. Bank's Liquidity Risk Management Procedures should be comprehensive and holistic. At the minimum, they should cover formulation of overall liquidity strategy, risk identification, measurement, and monitoring and control process.

4. Board and Senior Management Oversight

The board has to ensure that the bank has necessary liquidity risk management framework and bank is capable of confronting uneven liquidity scenarios. The prerequisites of an effective liquidity risk management include an informed board, capable management, and staff having relevant expertise and efficient systems and procedures. It is primarily the duty of board of directors to understand the liquidity risk profile of the bank and the tools used to manage liquidity risk. Generally, in this respect the responsibilities of the Board include:

-) Providing guidance on the level of tolerance for liquidity risk;
-) Establishing an appropriate structure for the management of liquidity risk and identifying lines of authority and responsibility for managing liquidity risk exposure;
-) Appointing senior managers who have the ability to manage liquidity risk and delegate to them the required authority to accomplish the job;
-) Continuously monitoring the bank's performance and overall liquidity risk profile through reviewing various reports;
-) Ensuring that senior management takes necessary steps to identify, measure, monitor and control liquidity risk; and
-) Reviewing adequacy of the contingency plans of the banks.

Senior management is responsible for the implementation of sound policies and procedures keeping in view the strategic direction and risk appetite specified by board. To effectively oversee the daily and long-term management of liquidity risk senior managers should:

Management Guidelines

-) Develop and implement procedures and practices that translate the board's goals, objectives, and risk tolerances into operating standards that are well understood by bank personnel and consistent with the board's intent.
-) Adhere to the lines of authority and responsibility that the board has established for managing liquidity risk.
-) Oversee the implementation and maintenance of management information and other systems that identify, measure, monitor, and control the bank's liquidity risk.
-) Establish effective internal controls over the liquidity risk management process.

5. Liquidity Risk Strategy and Policies

Banks should formulate and implement appropriate liquidity risk management policies approved by the Board of Directors. The liquidity strategy must be documented in a liquidity policy, and communicated throughout the bank. The strategy should be evaluated periodically to ensure that it remains valid. Specific details of the policy may vary from bank to bank according to the nature, size and complexity of their business. At minimum it should cover general liquidity strategy (short- and long-term), specific goals and objectives in relation to liquidity risk

management, process for strategy formulation and the level within which it is approved. The strategy should provide continuity in approach and should be reviewed and amended periodically as deemed necessary; it should be viable in the long term and through various economic cycles. The liquidity risk strategy defined by board should enunciate specific policies on particular aspects of liquidity risk management, such as:

5.1 Composition of Assets and Liabilities.

The strategy should outline the mix of assets and liabilities to maintain liquidity. Liquidity risk management and asset/liability management should be integrated to avoid steep costs associated with having to rapidly reconfigure the asset liability profile from maximum profitability to increased liquidity.

5.2 Diversification and Stability of Liabilities.

The strategy should ensure that the bank have a diversified sources of funding day-to-day liquidity requirements. A bank would be more resilient to tight market liquidity conditions if its liabilities were derived from more stable sources. To comprehensively analyze the stability of liabilities/funding sources the bank need to identify:

-) Liabilities that would stay with the bank under any circumstances;
-) Liabilities that run-off gradually if problems arise; and
-) That run-off immediately at the first sign of problems.

5.3 Access to Inter-bank Market.

The inter-bank market is one of the sources of liquidity. However, the strategies should take into account the fact that in crisis situations access to inter bank market could be difficult as well as costly.

5.4 Contingency Funding Plan

Designing contingency funding plan to enable banks meet their funding needs under stress scenarios. Such a plan, commonly known as Contingency Funding Plan (CFP), is a set of policies and procedures that serve as a blue print for a bank to meet its funding needs in managing liquidity risk in a timely manner and at a reasonable cost. The CFP should project the

future cash flows and funding sources of a bank under market scenarios including aggressive asset growth or rapid liability erosion.

6 Liquidity Policies

The banks should formulate liquidity policies, which are recommended by senior management/ALCO and approved by the Board of Directors. While specific details vary Risk Management Guidelines across banks according to the nature of their business, the key elements of any liquidity policy include

-) General liquidity strategy (short- and long-term), specific goals and objectives in relation to liquidity risk management, process for strategy formulation and the level within the bank it is approved.
-) Roles and responsibilities of individuals performing liquidity risk management functions, including structural balance sheet management, pricing, marketing, contingency planning, management reporting, lines of authority and responsibility for liquidity decisions.
-) Liquidity risk management structure for monitoring, reporting and reviewing liquidity;
-) Liquidity risk management tools for identifying, measuring, monitoring and controlling liquidity risk (including the types of liquidity limits and ratios in place and rationale for establishing limits and ratios).
-) Contingency plan for handling liquidity crises.

The liquidity policy should be communicated down the line throughout in the organization. There should be periodic review in a regular basis and when there are any material changes in the bank's current and prospective liquidity risk profile. Such changes could arise from internal circumstances (e.g. changes in business focus) or external circumstances (e.g. changes in economic conditions). Reviews provide the opportunity to update and amend the bank's liquidity policies in light of the bank's liquidity management experience and development of its business. Banks should establish appropriate procedures and processes to implement their liquidity policies. The procedural manual should explicitly outline necessary operational steps and processes to execute the relevant liquidity risk controls. The manual should be periodically

reviewed and updated to take into account new activities, changes in risk management approaches and systems.

7. Asset Liability Committee

Bank should develop appropriate structure for managing overall liquidity of the bank. Generally the function of liquidity risk management is performed by an ALCO. Ideally ALCO comprises of senior management from each key area of the bank that assumes and manages liquidity risk. It is important that these members have clear authority over the units responsible for executing liquidity-related transactions so that ALCO directives reach these line units unimpeded. The ALCO should meet on a regular basis. Generally responsibilities of ALCO include developing and maintaining appropriate risk management policies and procedures, MIS reporting, limits, and oversight programs. ALCO usually delegates day-to-day operating responsibilities to the bank's treasury department. However, ALCO should establish specific procedures and limits governing treasury operations before making such delegation. To ensure that ALCO can control the liquidity risk arising from new products and future business activities, the committee members should interact regularly with the bank's risk managers and strategic planners.

8 Liquidity Risk Management Process

An effective liquidity risk management includes systems to identify measure, monitor and control its liquidity exposures. Management should be able to accurately identify and quantify the primary sources of a bank's liquidity risk in a timely manner. To properly identify the sources, management should understand both existing as well as future risk that the bank can be exposed to. Management should always be alert for new sources of liquidity risk at both the transaction and portfolio levels. Key elements of an effective risk management process include an efficient MIS, systems to measure, monitor and control existing as well as future liquidity risks and reporting them to senior management.

9 Management Information System

An effective management information system (MIS) is essential for sound liquidity management decisions. Bank should be able to monitor its day-to-day liquidity position and Risk Management Guidelines risk control. Liquidity MIS should be developed keeping a crisis monitoring in mind.

Accuracy and timeliness of information are important elements for monitoring liquidity. Since bank liquidity is primarily affected by large, aggregate principal cash flows, detailed information on every transaction may not improve analysis.

An appropriate mechanism for monitoring activities helps in proper identification of liquidity risks through early warning indicators, which have the potentials of igniting the problem. Management should develop systems that can capture significant information. The content and format of reports depend on a bank's liquidity management practices, risks, and other characteristics. Management should regularly consider how best to summarize complex or detailed issues for senior management or the board. Besides several types of information important for managing day-to-day activities and for understanding the bank's inherent liquidity risk profile includes:

-) Asset quality and its trends.
-) Earnings projections.
-) The bank's general reputation in the market and the condition of the market itself.
-) The type and composition of the overall balance sheet structure.
-) The type of new deposits being obtained, as well as its source, maturity, and price.

10 Liquidity Risk Measurements and Monitoring

An effective measurement system is essential for adequate management of liquidity risk. Banks should institute systems that enable them to capture liquidity risk ahead of time so that appropriate remedial measures could be prompted to avoid any significant losses. An effective measurement and monitoring system is essential for adequate management of liquidity risk. Banks vary in relation to their liquidity risk depending upon their size and complexity of business. Therefore they require liquidity risk measurement techniques accordingly. For instance banks having large networks may have access to low cost stable deposit, while small banks have significant reliance on large size bank deposits. Liquidity risk measurement and monitoring system not only helps in managing liquidity in times of crisis but also optimize return through efficient utilization of available funds. Abundant liquidity does not obviate the need for a mechanism to measure and monitor liquidity profile of the bank.

Principle 5: A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.

Principle 6: A bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

Principle 7: A bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers

Principle 8: A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

Principle 9: A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner.

Principle 10: A bank should conduct stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide stress scenarios (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies, and positions and to develop effective contingency plans.

Principle 11: A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include

clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.

Principle 12: A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

Principle 13: A bank should publicly disclose information on a regular basis that enables market participants to make informed judgments about the soundness of its liquidity risk management framework and liquidity position. Presented below are some commonly used liquidity measurement and monitoring techniques adopted by the banks;

11 Liquidity Ratios and Limits

Banks may use a variety of ratios to quantify liquidity. These ratios can also be used to create limits for liquidity management. Such ratios would be meaningless unless used regularly and interpreted taking into account qualitative factors. Ratios should always be used in conjunction with more qualitative information about borrowing capacity, such as the likelihood of increased requests for early withdrawals, decreases in credit lines, decreases in transaction size, or shortening of term funds available to the bank. To the extent that any asset-liability management decisions are based on financial ratios, a bank's asset-liability managers should understand how a ratio is constructed, the range of alternative information that can be placed in the numerator or denominator, and the scope of conclusions that can be drawn from ratios. Because ratio components as calculated by banks are sometimes inconsistent, ratio-based comparisons of banks or even comparisons of periods at a single bank can be misleading.

One of the most serious sources of liquidity risk comes from a bank's failure to "roll over" a maturing liability. Cash flow ratios and limits attempt to measure and control the volume of liabilities maturing during a specified period of time. Liability concentration ratios and limits help to prevent a bank from relying on too few providers or funding sources. Limits are usually expressed as either a percentage of liquid assets or an absolute amount. Sometimes they are more

indirectly expressed as a percentage of deposits, purchased funds, or total liabilities. For example: liquid assets to total deposit ratio, credit to deposit ratio, total loans/total deposits, short term liabilities to liquid assets ratio, total loans/total equity capital, borrowed funds/total assets etc are examples of common ratios used by banks to monitor current and potential funding levels.

In addition to the statutory limits of liquid assets requirement and cash reserve requirement, the board and senior management should establish limits on the nature and amount of liquidity risk they are willing to assume. The limits should be periodically reviewed and adjusted when conditions or risk tolerances change. When limiting risk exposure, senior management should consider the nature of the bank's strategies and activities, its past performance, the level of earnings, capital available to absorb potential losses, and the board's tolerance for risk. Balance sheet complexity will determine how much and what types of limits a bank should establish over daily and long-term horizons. Liquidity ratios and limit can be early indicators of excessive risk or inadequate liquidity risk management.

12 Foreign Currency Liquidity Management

Each institution should have a measurement, monitoring and control system for its liquidity positions in the major currencies in which it is active. In addition to assessing its aggregate foreign currency liquidity needs and the acceptable mismatch in combination with its domestic currency commitments, an institution should also undertake separate analysis of its strategy for each currency. Merely meeting the NRB Foreign Currency Exposure limits is not enough to manage the institution's exposure to foreign currency risk. Banks should develop their own strong internal risk management process based on the size, nature and complexities of their business exposure.

13. Internal Controls

Banks should institute review process that should ensure the compliance of various procedures and limits prescribed by senior management. The structure (unit) for review should be independent of the funding areas. Reviewers should verify the level of liquidity risk and

management's compliance with limits and operating procedures. Any exception to that should be reported immediately to the board for necessary actions.

2.2.2 Review of Related Studies

Pradhan (2003) in the article "*Deposit Mobilization, its Problem and Prospects*" has presented the following problems in the context of Nepal.

-) People do not have knowledge and proper education for saving in institutional manner. They so now know financial organizational process, withdrawal system, depositing system etc.
-) Financial institutions do not want to operate and provide their services in rural areas.
-) He has also recommended about how to mobilize the deposit collection by the financial institutions by rendering their services in rural areas by adding various services.
-) By operating rural banking programmes.
-) Nepal Rastra Bank must organize training programmes to develop the skilled human resources.
-) By spreading a numbers of co-operative societies to develop mini banking services and improves the habits of public on deposit collection to the rural areas.

Shrestha (2004) has mention in his article "*Portfolio Management Plays the Vital Role in Individual as well as Institutional*" that due to slowdown in the world economy and deteriorating law and order situation of the country, many sectors if the economy is already sick. When any sector of economy catches cold, bank start sneezing. Form this perspective, the banking industry as a whole is not trust. Incase of investors having lower income, portfolio management may be limited to small saving income. But the other hand, portfolio management means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Therefore, portfolio management becomes very important for both an individuals as well as institutional investors. Large investors would like to select the best mix of investment assets.

Mundul (2008) in article "*Understanding of credit derivative*" emphases Credit derivative enable financial institution and companies to transfer credit risk to a third parity and thymus reduce their

exposure to the risk of an obligor's default. Credit enhancement technique, which helps reduce the credit risk of an obligation, play a key role in encouraging loans and investment in debts. In legal term credit derivative are privately negotiated bilateral contract to transfer credit risk from one party to another. Some credit enhancement methodologies have existed for the in debts. Some credit enhancement methodologies have existed for a longtime with the support of guarantee, letter of credit or insurance product. However such mechanism works best during economic upturns. As an alternative to commercial risk mechanism, various financial mechanisms have been developed over the past few decades. Such credit risks instruments are normally refer to as credit derivatives. Credit derivative helps to transfer credit risk away from the lender to some other party. Now credit derivative grew popular both as tools for hedging credit risk exposure as well as method of investing in certain types of credit risk.

Credit derivative not only helps corporation and financial institution to manage to their credit risk but also enabled a new set of individual retail client to invest in bonds and stocks previously unaffordable. Through credit derivative individual investor ca invest indirectly in foreign bonds at a lower price. Credit derivative helps investor isolated credit, and transfer it to other investor who are better suited to managing it or who finds the investment opportunity more interesting. There are many credit instruments in the market they are

- Total return swap (TRS)
- Credit default swaps (CDS)
- Credit linked notes (CLN)
- Credit spread option (CSO)

According to the behavior of the asset or deal above credit instrument can be used and minimizing the risk. In this way credit derivative provide protection against credit peril and risk.

Poudel (2010) in the article, "*Present Condition of Financial companies*" has presented with compared to the commercial bank, the interest rate is relatively high that is provided and accepted by finance companies. The financial companies should not be confined only in the valley. They should extend their services to the rural sectors of Hill and Terai to reduce regional imbalance. The collection of deposit and loan investment done by the commercial banks also, to sustain themselves in the environment of competitions, they should introduce novel technology and equipment's to collect deposits and investments .They should learn from the drawbacks,

failure and success of commercial banks to effectively maintain as alternative status.

Mundal (2011) in articles “*Lending Policy: Human and Organizational Aspects*” It’s an ongoing debate if human and organizational aspects play a role in the formulation of lending policies of banks and financial institution. It takes the human and organizational factor such as skill, attitudes, human equations and leadership. Policies are ever evolving and cannot be successfully implemented unless the issues in these areas are adequately taken care of and the right environment is set up. When change brings about development of new technical skills, there is ground for clash between experiences these skills. It is more so when both the aspects are equally important. While experience, authority and probably power arte bound to go with one generation. The newer skill involves pencil work, enthusiasm for and the time available to use them would go with the other generation. A combination of both developing own people and hiring professionals form relevant sector would be good to enhance the internal efficiency and competitiveness. In this regard there are three gaps that are evident even today.

Skill gaps

Organizational change

Generation gaps

It is important to ensure adequate leverage to the operating executives at the industry level vis-à-vis the borrowing clientele including the prospective one. To many estimation the loan market should not become a buyer market pre dominantly, this is likely to cause distortion in the financial system, lending to unhealthy competition amongst lenders. The country like Nepal needs sincere implementation of change particularly in financial sectors. To be more specific these are require in the process of credit evaluation, writing of credit policy and the bringing about new product. This will certainly assist the development and maturity of the financial market. This will also assists Nepal in the process of integration with global financial market and with the expanding market of the two large neighboring countries. We should take a pragmatic view of the fast developing would and adapt to the changes first for survival and then progress.

2.2.3 Review of Thesis

A very few thesis reports are related to liquidity management in Joint venture banks. Some of those unpublished thesis reports are viewed here.

Gautam, (2006) has conducted research on "*A Comparative study on financial performance of Standard Chartered Bank Limited and Nepal Bangladesh bank Limited*". Financial performance is analyzed with two important tools. The first most important tools are the financial tools, which includes ratio analysis and other is a statistical tools, which is bankruptcy score.

The objectives of his research are:

-) To study the existing capital structure of financial position of selected joint venture commercial banks and to analyze its impact on the profitability.
-) To assess the debt servicing of the joint venture commercial bank.
-) To examine the correlation and the signification of their relationship between different ratios related to capital structure.
-) To provide suggestions and recommendations for the optimal capital structure of the joint venture commercial bank.
-) To obtain the objectives, some financial, statistical and accounting tools.

He has found his study were the joint venture banks are operating in Nepal as commercial merchant banks. The growth is still going on as so many new banks are coming into existence after this study. Therefore, JVB's are operating with higher technology and new efficient methods in banking sector. However, this study has been undertaking only three JVB's viz. SCBNL and NBBL to examine and evaluation the financial data.

The research findings of the study are the research sample JVB's have used high percentage of total debt in raising the assets. The higher ratio constitutes that the outsider's claim in total assets of the bank is owner's claim. The on an average, NBBL bank constitutes 16.27 times of P/E ratio, which should be reduce as quickly as possible. The financial risk of the banks NBBL average degree of finance leverage constitutes 3.73 times which indicates the higher degree of financial risks 3.73 times which indicates the higher degree of financial risks. Now, in Nepal many banks and other financial institution are functioning to collect deposits and invest money somewhere in the investable sectors. Therefore, efficiency has been increased since liberalization policy taken by the government. Heavy remittance has also helps to increase the amount of deposits in bank

Sedai (2007) in his dissertation “*An Analysis on Lending Policy and Strength of Nepal Investment Bank Ltd*” highlighted that aggregate performance of NIBL is satisfactory and pushing upward. Lending strength of NIBL in term of exposure of loan and advances is good and appreciable. The contribution made by bank in industrial as well as agriculture sector of the economy is highly appreciable and its bust up towards national prosperity. The ratio of loan and advances to total asset, loan and advance to shareholder’s equity indicate a good performance of NIBL in its lending activities.

The main objective and target of this study is to observe the loan disbursement of Nepal Investment Bank Ltd. they are

-) To evaluate various financial ratios of the NIB.
-) To determine the impact of deposit in liquidity and its effect on lending practices.
-) To analyze trend of deposit utilization towards loan and advances and net profit.
-) To offer suitable suggestions based on findings of this study

The main recommendations are drawn according to finding and conclusion. It is recommended that extend their credit and branch in rural area, continue to maintain or further increase the performance, decrease the NPL and make proper loss loan provision, required proper market analysis, diversify the investment sector etc. performance of NIBL seems to be good till the date. There are still many opportunities for further growth of the bank. NIBL is suggested to further improve current position of lending portfolio. The bank should concentrate on financial strength, personal integrity and credibility of the borrower of loan disbursement. It should maintain high level of monitoring and control system over the disbursed loan and advances. To create opportunity of business new and attractive lending scheme would be launched to the customer.

Looking at the asset management ratio the performance of NIBL seems good in the area of lending, productivity and impact on national economy. The activity ratio also reflects to the soaring performance of NIBL. The decreasing loss loan provision ratio indicates that bank is good enough to judgment in their value customer. The better activity ratio of this bank been a major contributor in managing the lending portfolio according to the demand of the profit oriented business. The high volume of lending activity of NIBL has put this bank in the top position in absolute term. Thus looking at the various summaries and findings, we can conclude

that the bank has accelerated its performance in the year 2002/3 and has continued till 2004/5 and the bank has the potentiality to become a leading bank in Nepal.

Limbu (2008) in his dissertation, “*Credit Management of NABIL Bank Limited*” highlighted that aggregate performance and condition of Nabil bank. In the aspect of liquidity position, cash and bank balance reserve ratio shows the more liquidity position. Cash and bank balance to total deposit has fluctuating trend in 5 years study period. Cash and bank balance to current deposit is also fluctuating. The average mean of Cash and bank balance to interest sensitive ratio is able to maintain good financial condition.

The main objectives of the research study are as follow.

-) To evaluate various financial ration of the Nabil Bank.
-) To analyze the portfolio of lending of selected sector of banks
-) To determine the impact of deposit in liquidity and its effect on lending practices.
-) To offer suitable suggestions based on findings of this study.

The main findings and conclusions are according to calculated ratio. In the aspect of assets management ratio, assets management position of the bank shows better performance in the recent years. Non-performing assets to total assets ratio is decreasing trend. The bank is able to obtain higher lending opportunity during the study period. Therefore, credit management is in good position of the bank. In leverage ratio, Debt to equity ratio is in an increasing trend. High total debt to total assets ratio posses’ higher financial risk and vice-versa. In the aspect of profitability position, total net profit to gross income, the total interest income to total income ratio of bank is in increasing trend. Earning per share and The Price earning ratio of NABIL is in increasing trend. Loan loss provision to total loan and advances ratio and None-performing loan to total loan and advance ratio of NABIL is decreasing trend. Thus, credit management is in a good position.

In the statistical tools analysis, average mean, correlation analysis and trend analysis have been calculated. Correlation coefficient between total credit and total assets shows high degree of positive correlation. Correlation coefficient between total deposit and loan & advances has high degree of positive correlation it is concluded that increasing total deposit will have positive

impact towards loan & advances. Trend analysis tools are done for future forecasting. Trend analysis for total, loan & an advance, Total asset and Net profit is done to see future prospect.

Karki (2009) has conducted entitle thesis “*The Comparative study on liquidity mobilization of Nabil Bank Ltd. and Standard Chartered Bank Ltd.*” The main objective of the study is to find out the ways of utilizing the surplus deposit funds and the right reinvestments for the economic development of a country. The specific objectives of the study are as follows:

-) To analyze the liquidity position of NABIL and SCBNL Banks
-) To analyze the ratio between two banks.
-) To analyze the gap between deposits and loan and advances.
-) To provide suggestions for the improvement on the basis of findings.

The main finding and conclusion of the study are the overall aspect of liquidity position, liquidity position of SCBNL is comparatively better than NABIL. This indicates that the bank has higher liquidity of SCBNL as compare to NABIL. Cash and bank balance to total assets ratio of SCBNL is higher than NABIL. Investment on government securities to current assets ratio of SCBNL is higher than NABIL. This indicates that SCBNL has invested more portions of current assets on government securities.

An asset management aspect of NABIL is better than SCBNL. The loan & advances to total deposit ratio of NABIL is higher than SCBNL. So, NABIL is more efficiently utilizing the outsiders’ funds in extending credit for profit generating sectors. The total investment to total deposit of SCBNL is higher than NABIL. It shows the SCBNL is mobilizing its funds on investment in various securities efficiently. The loan & advances to total assets ratio of NABIL is greater than SCBNL. It refers NABIL has utilized its total assets more efficiently in the form of loan & advances with more risk because it has greater variability in the ratio. SCBNL has earned higher profit in relation to every aspects of the bank than NABIL. Following findings are drawn on the basis of profitability position of NABIL and SCBNL. Return on loan & advances ratio of SCBNL is higher than that of NABIL i.e. $6.98\% > 4.64\%$. It refers that SCBNL seems to be success to earn high profit on loan & advances. Return on fixed assets of SCBNL is higher than NABIL. This shows that SCBNL is more successful to earn high profit through the efficient

utilization of its fixed assets. NABIL has higher total interest earned to total outside assets to earn higher interest income than that of SCBNL.

Khanal (2010) has done thesis in "*Comparative Study on Liquidity Management of Everest Bank Limited And Himalayan Bank Limited*". The basic objective of the study is to have true insight into the liquidity management of Everest Bank and Nepal Himalayan Bank. This aims to examine its efficiency and effectiveness in disbursing and recovery of loans as well following the directives of NRB Acts and its own policies.

-) To analyzed the liquidity management of sample banks
-) To analyze the deposit and investment position of the banks.
-) To find out the relationship between deposit, investment, loans and advances and net profit.
-) To find out the trend analysis of deposit, investment, loans and advances and net profit.

The main conclusion and finding of the study are overall aspect of liquidity position of EBL is comparatively better than HBL. The mean current ratio of EBL is 1.14 and HBL is 1.10. EBL is sound in meeting short-term obligation than HBL. Cash and bank balance to total deposit ratio of EBL has higher HBL which indicates that the bank has higher liquidity of EBL as compare to HBL. Cash and bank balance to current assets ratio of EBL is little higher than HBL. The higher mean ratio shows EBL's liquidity position is better than that of HBL. Investment on government securities to current assets of HBL is higher than EBL. It shows HBL has invested more fund in government securities. EBL has invested little portion of their funds in purchasing of government securities.

Assets management aspect of EBL is better than HBL which is justified by little higher loan and advances to total deposit ratio The total investment to total deposit of HBL is higher than EBL. It shows the HBL is mobilizing its funds on investment in various securities efficiently. It can be said that HBL is more successful in utilizing its total deposit by investing in marketable securities.

Profitability ratios, return on loan and advances ratio of HBL is higher than that of EBL. It refers that HBL seems to be success to earn high profit on loan and advances. Return on total assets ratio of EBL is slightly higher than HBL i.e. 1.50% > 1.28%. But it has greater variability in the ratio. EBL seems successful in managing and utilizing the available assets. Total interest earned to total operating income ratio of HBL is lower than EBL. Total interest paid to total assets ratio of EBL is higher than HBL. It shows EBL has high interest expenditure to total assets. It supports EBL to increase to interest paid to operating income. For risk position of bank, the average credit risk ratio of EBL is lower than HBL. EBL has efficiently used the total loan and advances than that of HBL. The average mean ratio of EBL is greater than that of HBL. Similarly, in asset Risk Ratio, The mean of EBL is lower than HBL It indicate HBL has high ratio of asset risk.

Average Earning per share, dividend per share and average market price per share of EBL higher in comparison to HBL. This considered as better in security analyzing in order to make investment decision. In comparison to both bank trend of deposit and loan and advance of EBL high and trend of investment and profit of HBL is high. So both banks are equal in their liquidity management.

Bhusal S.P. (2011) has conducted research on “*Comparative analysis of liquidity management of joint venture banks in Nepal (with special reference to NABIL, EBL & NSBIL)*”. This research is conducted with the major objective of highlighting liquidity management. The main objective of this study is to examine and analyze liquidity position and its management in banks. The main objectives of the study are as follows:

-) To examine the liquidity policy of sample banks.
-) To analyze the liquidity position and management of liquidity of sample banks.
-) To examine the relative relation and trend of liquidity of NABIL, EBL and NSBI banks in terms of different kinds of ratios.
-) To analyze relation and trend
-) To provide suggestions and recommendations base on finding of the study.

The main conclusion and finding of the study are as follows

In the analysis of major components of liquidity cash and bank balance, total deposit, investment on Govt. Securities and current asset, all liquidity component of NABIL is fluctuating but EBL and NSBIL are increasing condition. The average amounts of total deposit are Rs 31717.19, Rs 25244.05 and Rs 19803.27 millions. Similarly, the average amounts of current asset are Rs19569.323 million, 23572.96 million and Rs 18057.12 million. EBL has highest average amount in cash and bank balance where as NABIL has highest investment on Govt. securities and current asset.

NABIL, EBL and NSBIL three banks have better liquidity position because the standard ratio is more than 1:1. The cash and bank balance to current assets ratio of NABIL, EBL and NSBIL have fluctuating. The average investment on Govt. Treasury bill to current asset ratio of NABIL has higher than EBL and NSBIL. The cash and bank balance to total deposit ratio of NABIL is increasing EBL is fluctuating and NSBIL is decreasing. The balance in NRB to total deposit ratio of NABIL, EBL and NSBIL are fluctuating. The average balance in NRB to total deposit of EBL is greater than NABIL and NSBIL. The total investment to total deposit ratio of NSBIL indicates higher investment from total deposit.

The average investment on government treasury bills to total assets ratio of EBL is higher than NABIL and NSBIL. The return on loan and advance of NABIL, EBL and NSBIL have fluctuating trend. The return on total assets ratio of NABIL is higher than EBL and NSBIL. NABIL has high market price in every year. The higher PE ratio signify that price of NSBIL is traded in market in higher price. The investor of NSBIL are getting better price of stock because the share trading in high price. It is recommended to sell share of NSBIL and purchase share of EBL according to analysis of price earning ratio.

The correlation between deposits and loan and advances of NABIL, EBL and NSBIL are positive. All banks have significant relationship. The correlation between total deposits and investments of all banks are positive. NABIL and NSBIL have significant relationship and EBL has insignificant. The correlation between current asset and net profit of NABIL, EBL and NSBIL are positive. The correlation between deposit and net profit of NABIL, EBL and NSBIL are positive. The relationship of NABIL, EBL and NSBIL is significant. The trend of total

deposit and loan and advance of NABIL, EBL and NSBIL forecasted increasing trend. Increment trend of NABIL is higher, EBL has moderate and NSBIL has lower. The Trend line of current asset of NABIL, EBL and NSBIL banks forecasted increasing. The rate of increment of current asset for EBL seems to be higher and aggressive than NSBIL and NABIL. Similarly, The Trend of net profit of NABIL, EBL and NSBIL forecasted increasing trend. The increment of Net profit of NABIL and EBL is aggressive rather than NSBIL. In conclusion, NABIL and EBL are doing better in order to generate net profit but increment of NSBIL is little lower.

Magar Junimaya (2012) has conducted entitled thesis “*Comparative study on liquidity mobilization of bank of kathmandu limited and everest bank limited*”. The major objective of this study is to examine and analyze liquidity mobilization and its management of commercial banks. The main objectives of the study are as follows:

-) To examine the liquidity mobilization of sample banks.
-) To analyze the liquidity position and management of BOK and EBL banks.
-) To examine the relative relation and trend of liquidity of BOK and EBL banks in terms of different kinds of ratios.
-) To provide suggestions and recommendations base on finding of the study.

The main conclusion and finding of the study are as follows;

For the analysis of liquidity position, the current ratio of BOK and EBL has fluctuating. The average current ratio of BOK and EBL are 1.055 and 1.70. The liquidity position of EBL is higher than BOK. The cash and bank balance to total deposit ratio of BOK and EBL are in fluctuating form. The average cash and bank balance to total deposit ratio of EBL is higher than BOK, which shows its greater ability to pay depositors money as they want BOK. The loan and advances to total deposit ratio of BOK has higher ratio than that of EBL. It indicates the better mobilization of deposit by BOK as loan and advance. The mean total investment to total deposit ratio of the EBL has little higher than BOK. It signifies that EBL has successfully allocated its deposit in investment portfolio. The loan and advances to total assets ratio of BOK has constant and EBL has fickle. The BOK has little higher ratio than EBL. The mean investment on government treasury bills to total assets ratio of EBL has higher than BOK. It means EBL has invested more assets in risk free assets than BOK. The return on loan and advances ratio of BOK

and EBL has an increasing form. The return on equity ratio of BOK constant and EBL have increasing form of return on equity ratio. The average mean ratio of EBL has higher BOK. The average liquidity risk ratio of EBL is higher than that of BOK which signifies that EBL has sound liquid fund to make immediate payment to the depositors. The liquidity position of EBL is stronger than BOK. So it is better to purchase share of EBL and sale of BOK according to price earning ratio. The total interest earned to total asset ratio of BOK and EBL have increasing form, which indicate both banks doing well in interest earning.

2.3 Research Gap

The review of relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make this study meaningful. There are various researchers conduct on lending practice, liquidity analysis, credit policy, financial performance and credit management of various commercial banks. The past researcher has measuring on liquidity mobilization of bank have been focused on the limited ratios, which are incapable of solving the problems. In this research various ratio are systematically analyzed and generalized. The ratios are categorized according to nature. Here in this research all ratios are categorized according to their area and nature.

In this research comparative study of Comparative study of liquidity management of Nepal Investment bank Ltd and Himalayan Bank Ltd. done by measuring various ratios, trend analysis and various statistical tools as well and financial tools. Since the researcher have used data only five fiscal year but all the data are current and fact. This study tries to show liquidity mobilization by applying and analyzing various financial tools like liquidity ratio, asset management ratio, profitability ratio and other ratio as well as different statistical tools like average mean, coefficient of correlation and trend analysis. Probably this will be the appropriate research in the area of liquidity management of Bank and financial institutions. So this research is helpful and beneficial to all concern research worker, student, banker, investor and stakeholder.

CHAPTER - III

RESEARCH METHODOLOGY

The topic of the study has been selected as “Comparative study on liquidity management Nepal Investment Bank Ltd. and Himalayan Bank Ltd.” In order to reach and accomplish the objectives of the study, different activities will be carried out. For this purpose, the chapter aims to present and reflect the methods and techniques that are carried out and followed during the study period. The research methodology that is adopted for the present study is mentioned in this chapter which deals with research design, sources of data, data collection, processing and tabulating procedure and methodology.

3.1 Research Design

Research is a theory building activity. Research design is the plan, structure and strategy of investigations conceived so as to obtain answer to research questions and to control variances. A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combined relevance to the research purpose with economic in procedure (Kothari, 1999:59).

Since the main objectives of this study is to analyze liquidity position of the banks, all the indicators that show the liquidity management of the banks were calculated using data obtained from the five year end internally generated accounting records maintained by sampled Banks. The study depends on the secondary data. Various financial parameters and effective research techniques are employed to evaluate the research. Furthermore, various descriptive as well as analytical techniques are used. To achieve the objective of this study, analytical and descriptive research designs have been used. The study is designed as to give a clear picture of the Bank's financial circumstances with the help of available data with useful suggestions and recommendation.

3.2 Sources of Data

There are two sources of data collection. The research is based on secondary source of data. All the adequate data are collected from secondary sources.

This refers to data that are already used and gathered by others. Secondary data are mostly used for this research purpose. So the major sources of secondary data are as follows

- Annual Report of concern Bank.
- Internet and E-mails.
- NRB directives.
- Economy survey of Government of Nepal and Ministry of finance.
- Newspaper, journals, articles and various magazines.
- Central Library of T. U. and Library of Shanker Dev Campus.

3.3 Population and Sample

The objective of the research is to explore and describe the liquidity management of commercial bank in Nepal from the research point of view. However, with regard to the availability of the financial information, two samples were identified purposively from the banking sector, which comprise of nineteen among the listed. The population

Here, the total 31 commercial banks shall constitute the population of the data and two banks under the study constitute the sample under the study. So among the various commercial banks in the banking industry, here Nepal investment Bank Limited and Himalayan Bank Limited has been selected as sample for the present study. Likewise, financial statements of five years are selected as samples for the purpose of it.

3.4 Data Collection Procedure

Different tools and techniques were adopted while collecting the data for this study. Collected secondary information are analyzed during the course of the deskwork. However, during the desk study, an information gap was found. This gap fulfilled by the discussion with the thesis advisor and finance experts of the security board and the NEPSE.

3.5 Data Analysis Tools

Presentation and analysis of data is one of the important part of the research work. The collected raw data will first be presented in systematic manner in tabular form and then will be analyzed by applying different financial and statistical tools to achieve the research objectives. Besides

these some graph charts and tables will be presented to analyze and interpret the findings of the study. The tools applied are-

1 Financial Tools

2 Statistical Tools

3.6.1 Financial Tools

i) Liquidity Ratios: This ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short-term obligations. As a Financial Analytical tools, following liquidity ratios will be used.

a.) Current Ratio: This ratio shows the bank's short-term solvency. It shows the ratio of current assets over the current liabilities. This ratio can be computed by dividing the total current assets by total current liabilities, which can be presented as:

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

Higher ratio indicates the strong short-term solvency position and vice-versa.

b.) Cash and Bank Balance to Total Deposit Ratio: Cash and bank balances are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositor. This ratio can be computed by dividing cash and bank balance by total deposit and can be presented as:

$$\text{Cash and bank balance to total deposit ratio} = \frac{\text{Cash \& bank balance}}{\text{Total deposits}}$$

Cash and bank balance includes cash in hand, foreign cash in hand, cheques and other cash items, balance with domestic and foreign banks. The total deposit includes deposits made by customers though different accounts like current (demand deposit), saving, fixed deposit, call deposit and other deposit accounts.

c.) Cash and Bank Balance to Current Assets Ratio: This ratio measures the proportion of most liquid assets viz. cash and bank balance among the total current assets of the bank. Higher ratio shows the bank's ability to meet its demand for cash. The ratio is computed by dividing cash and bank balance by current assets, presented as under;

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

d.) Investment on Government Securities to Total Current Assets Ratio: This ratio is calculated to find out the percentage of current assets invested on government securities viz. treasury bills and development bonds. The ratio is stated as under;

Investment on Govt. securities to total current assets ratio =

$$\frac{\text{Investment on Govt. Securities}}{\text{Current assets}}$$

ii) Assets Management Ratios:

Asset management ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensures its effective utilization. The banking business converts the liability into assets by way of its lending and investing functions. The following are the various ratios relating to determine the efficiency of the subjected bank in managing its assets and in portfolio management.

a.) Loan and Advances to Total Deposit Ratio: This ratio is also called credit- deposit ratio (C D ratio). It is calculated to find out how successfully the bank is able to utilize its total deposits on loan and advances for profit generating purpose. Greater ratio implies better utilization of total deposits. This ratio can be obtained by dividing loan and advances by total deposit as under;

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

b.) Total Investment to Total Deposit Ratio: Investment is one of the major forms of credit creation to earn income. This implies the utilization of firm's deposit on investment on government securities, shares and debentures of other companies and banks. This ratio can be calculated by total investment divided by total deposit as:

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

c.) Loan and Advances to Working Fund Ratio: Loan and advances is the major component in the total working fund (total assets), which indicates the ability of bank to utilize its deposits in the form of loan and advances to earn high return. The ratio is computed by dividing loan and advances by total working fund, which is stated as under;

$$\text{Loan and advances to working fund ratio} = \frac{\text{Loans and advances}}{\text{Total working fund}}$$

d.) Investment on Government Securities to Total Asset Ratio: This ratio shows that bank's investment on government securities in comparison to the total working fund. This ratio can be computed by dividing investment on government securities by total working fund, which can be presented as;

Investment on Govt. Securities to total working fund =

$$\frac{\text{Investment on Govt. Securities}}{\text{Total working fund}}$$

iii) Profitability Ratios:

Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. For better performance, profitability ratios of firm should be higher. Under this, the following profitability ratio will be computed.

a.) Return on Loan and Advances Ratio: This ratio indicates how efficiently the bank utilizes its resources in the form loans and advances. This also measures the earning capacity of its loans and advances. This ratio is computed by dividing net profit (loss) by loans and advances which can be expressed as;

$$\text{Return on loan and advances ratio} = \frac{\text{Net profit (loss)}}{\text{Loans \& advances}}$$

b.) Return on Total Asset Ratio (ROA): This ratio measures the overall profitability of all working fund i.e. total assets. It is also known as return on assets (ROA). This ratio is calculated by dividing net profit (loss) by total working funds. This can be presented as;

$$\text{Return on total working fund ratio (ROA)} = \frac{\text{Net profit (loss)}}{\text{Total working fund}}$$

The numerator indicates the portion of income left to the internal equities after deduction all costs, charges and expenses.

c.) Return on Equity (ROE): Net worth refers to the owner's claim of a bank. The excess amount of total assets over total liabilities is known as net worth. This ratio measures how efficiently the bank has used funds of the shareholders. This ratio can be computed by dividing net profit by total equity capital (net worth). This can be calculated as;

$$\text{Return on Equity (ROE)} = \frac{\text{Net profit (loss)}}{\text{Total equity capital}}$$

d.) Total Interest Earned to Total Asset Ratio: This ratio is computed to find out percentage of interest earned to total assets (working fund). Higher ratio implies better performance of the bank in terms of interest earning on its total working funds. This fund is computed by dividing total interest earned by total working fund can be presented as;

$$\text{Total interest earned to total working fund ratio} = \frac{\text{Total interest paid}}{\text{Total working fund}}$$

e.) Total Interest Earned to Total outside Assets Ratio: This ratio measures the interest earning capacity of the bank through the efficient utilization of outside assets. Higher ratio implies efficient use of outside assets to earn interest. This ratio is calculated by dividing total interest earned by total outside assets and can be mentioned as under;

$$\text{Total interest earned to total outside assets ratio} = \frac{\text{Total interest earned}}{\text{Total outside assets}}$$

The numerator includes total interest income from loans and advances and investment where as the denominator comprises loan and advances, bills purchased and discounted and all type investment.

f.) Interest Income to Total Income Ratio: This ratio measures the volume of interest income in total income of the bank. The high ratio indicates the high contribution made by the lending and investing and vice-versa. This ratio can be completed by dividing interest income by total income presented as under;

$$\text{Interest income to total income ratio} = \frac{\text{Interest income}}{\text{Total income}}$$

g.) Total Interest Paid to Total Working Fund Ratio: This ratio depicts the percentage of interest paid on liabilities with respect to total working fund, which can be presented as;

$$\text{Total interest paid to total working fund ratio} = \frac{\text{Total interest paid}}{\text{Total working fund}}$$

iv). Risk Ratio

Risk and uncertainty is a part of business loss. All the business activities are influenced by risk, so business organization can not achieve a good return as per their desires. The profitability of risk makes banks investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So the banks options for high profit have to accept the risk and manage it efficiently.

a.) Credit Risk Ratio: Credit risk ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. By definition, credit risk ratio is expressed as the percentage of non- performing loan to total Loan and Advances. Bank utilizes its collected funds by providing credit to different sections. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. The credit risk ratio shows the proportion of no-performing assets in total Loan and Advances. Higher ratio indicates more risky assets in the volume of Loan and Advances of the bank and vice-versa.

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

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

v. Other Ratios

a) Earning per Share (EPS): EPS refers to net profit divided by total numbers of share outstanding. EPS measure the efficiency of a firm in relative terms. It is a widely used ratio, which measures the profit available to the ordinary shareholders on per share basis. The amount of EPS measures the efficiency of a firm in relative terms. This ratio is calculated as;

$$\text{Earnings per Share (EPS)} = \frac{\text{Net profit (loss)}}{\text{Total number of shares outstanding}}$$

b) Market Price per Share

Market price per share is the price at which shares are traded in the stock market. The secondary markets provide liquidity for securities purchased in primary market. Generally MPS is determined through supply and demand factors.

c) Price Earning Ratio

This ratio is closely related to the earning per share. It is calculated by dividing the market value per share by EPS. Price earning ratio indicates investor's judgments or expectation about the firm's performance. This ratio widely used by the security analysis to value the firm's performance. This ratio widely used by the security analysis to value the firm's performance as accepted by investors. Price earning ratio reflects investor expectations about the growth in the firm's earning. Higher ratio indicates the more value of the stock that is being ascribed to future earning as opposed to present earning.

Here, total equity capital includes shareholders' reserve including profit and loss account, general loan loss provision and share capital i.e. ordinary share preference share capital.

$$\text{Price Earning ratio} = \frac{\text{Market price per Share}}{\text{Earning per Share}}$$

2.6.2 Statistical Tools

Some important statistical tools will be used to achieve the objective of this study. In this study statistical tool such as mean, standard deviation, coefficient of variation, coefficient of correlation and trend analysis will be used.

i) Mean:

A mean is the average value or the sum of all the observation divided by the number of observations and it is given by the following formula:

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

Where, \bar{X} = Mean of the values

$\sum X$ = Summation of the values

N = No. of Observations

ii) Coefficient of variation:

The calculated standard deviation 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 on standard deviation only. The coefficient of variation (C.V.) is given by the following formula in the percentage basis:

$$\text{Coefficient of variation (C.V.)} = \frac{s}{\bar{X}} \times 100$$

iii) 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. Correlation refers to the degree of relationship between two variables. If between two variables, increase or decrease

in one causes increase or decrease in another, then such variables are correlated variables. The reliability of the value of coefficient of correlation is measured by probable error. The correlation coefficient describes the degree of relationship between two variables. It interprets whether variables are correlated positively or negatively. This tool analyses the relationship between those variables by which it is helpful to make appropriate investment policy for profit minimization. The Karl Pearson coefficient of correlation (r) is given by following formula:

$$\text{Coefficient of Correlation (r)} = \frac{xy}{N\sigma_1\sigma_2}$$

$$\text{Where, } x = \sum X - Z\bar{X}$$

$$y = \sum Y - Z\bar{Y}$$

σ_1 = Standard series of X

σ_2 = Standard series of Y

N = Number of pairs of Observations

The Karl Pearson coefficient of correlation 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 reaches to the value of zero, it is said that there is no significant relationship between the variables.

iv) Trend Analysis:

Among the various methods of determining trend of time series, the most popular and mathematical method is the least square method. Using this least square method, it has been estimated the future trend values of different variables. For the estimation of linear trends line following formula can be used:

$$y = a + bx$$

Where,

y = Dependent variable

x = Independent variable

a = Y – intercept

b = Slope of the trend line

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

Introduction review of literature and research methodology is presented in the previous chapters that provide the basic inputs to analyze and interpret the data. Presentation and analysis of data is the main body of the study. In this chapter collected data are analyzed and interpreted as per the stated methodology in the previous chapter. The data are analyzed by using financial and statistical tools to get values of different variables. The analyzed data and result are presented clearly and simultaneously by using tables and figures. The main sources of data are secondary data. In this chapter, researcher has analyzed and diagnosed liquidity management of NIBL and HBL Bank Limited. All the liquidity management is analyze by calculating following ratio.

4.1 Financial Analysis

Financials ratios which are related to the liquidity are presented to evaluate and analyze. In this part various financials ratios are presented to evaluate and analyze the performance of commercial Banks i.e. NIBL and HBL. Some important financial ratios are only calculated in the point of view of f liquidity mobilization. The ratios are designed and calculated to highlight the relationship between financial items and figures. It is a kind of mathematical relationship and procedure dividing one item by another.

Financial Ratio Analysis

Financial Ratio Analysis is a tool, through which economic and financial position of organization can be fully to judgment X-ray. It is the indicated quotient of two mathematical expressions, and as the relationship between two or more things. Therefore to find out the liquidity position of the sampled commercial banks, the following ratios are examined.

4.1.1 Ratio Analysis

Ratio analysis shows the mathematical relationship between two accounting figures. It helps to analyze the financial strengths and weaknesses of the banks. It is also inevitable for the quantitative judgment with which the financial performance of banks can be presented properly.

4.1.1.1 Liquidity Ratio

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

A. Analysis of Current Ratio

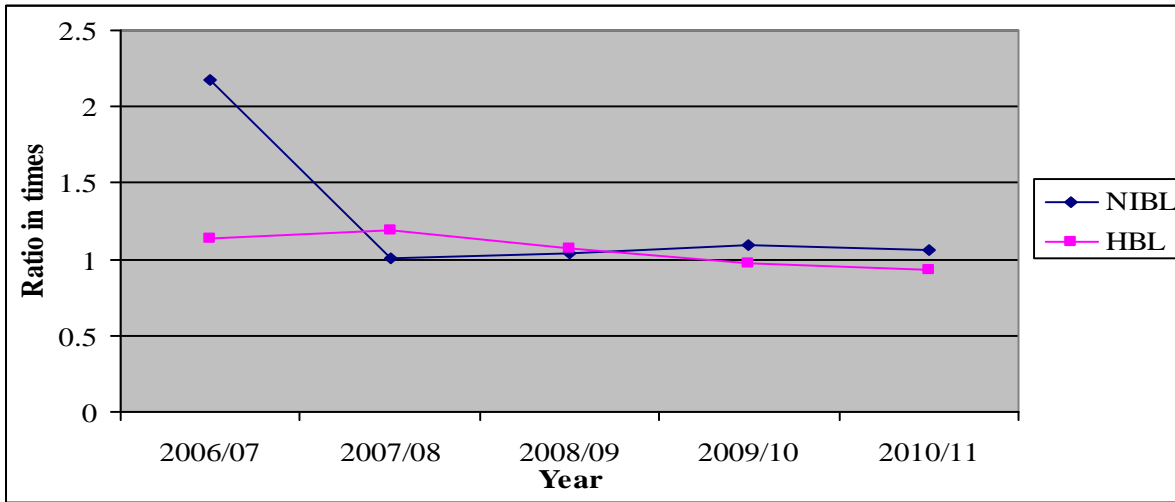
This ratio measures the liquidity position of the commercial banks. It indicates the ability of Banks to meet the current liquidity.

Table No. 4.1
Current assets to current liability (in times)

Fiscal Year	NIBL			HBL		
	Current Assets	Current Liabilities	Ratio in Times	Current Assets	Current Liabilities	Ratio in Times
2006/07	22929.1	10545.6	2.17	24812.27	21812.27	1.14
2007/08	31869.6	31430.7	1.01	29449.34	24696.45	1.19
2008/09	44095.57	42449.15	1.04	29813	27968	1.07
2009/10	46211.87	42053.17	1.09	29858	30797	0.97
2010/11	46260.2	43870.43	1.06	31590.73	33855.55	0.93
Mean			1.28			1.06
S.d.			0.503			0.11
C.V.			0.394			0.1038

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.1
Current Ratio



Above table and figure show the current ratio of NIBL and HBL banks during the study period. The current ratio of NIBL and HBL has a fluctuating trend. The highest current ratio of NIBL is 2.17 in F/Y 2006/07 and lower ratio is 1.01 times in F/Y 2007/08. Similarly highest current ratio of HBL is 1.19 in F/Y 2007/08 and lowest ratio is 0.93 in 2010/11. The average current ratio of NIBL and HBL are 1.28 and 1.06. The average ratio indicates liquidity position of NIBL is higher than HBL. So, NIBL is sound in meeting short-term obligation than NIBL. The S. D. and C.V. of HBL is less than NIBL so it can be said that current ratio of HBL is more consistent than that of NIBL. Lastly, from the above analysis it is known that these two banks moderate liquidity position because the ratio is more than 1:1. They have just managed to meet the standard ratio. 1:1.5 is called good current ratio. Generally, banks require more liquid assets as compared to current liabilities in order to provide better banking service but these two banks have lower liquidity ratio than standard ratio.

B) Cash and Bank Balance to Total Deposit Ratio

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

Table No. 4.2

Cash and Bank Balance to Total Deposit Ratio

Fiscal Year	NIBL			HBL		
	Cash and Bank Balance	Total Deposit	Ratio in Percent	Cash and Bank Balance	Total Deposit	Ratio in Percent
2006/07	2441.51	24488.85	9.97	1757.34	30048.418	5.85
2007/08	3754.94	34452	10.9	1448.14	31842.79	4.55
2008/09	7918	46698	16.95	3048.53	34681.35	8.79
2009/10	6815.89	50094.73	13.61	3866.49	37611.2	10.28
2010/11	8140.37	50138.12	16.24	2946.65	40920.63	7.20
Mean			13.534			7.334
S.d.			3.108			2.278
C.V.			0.229			0.311

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.2

Cash and Bank Balance to Total Deposit Ratio

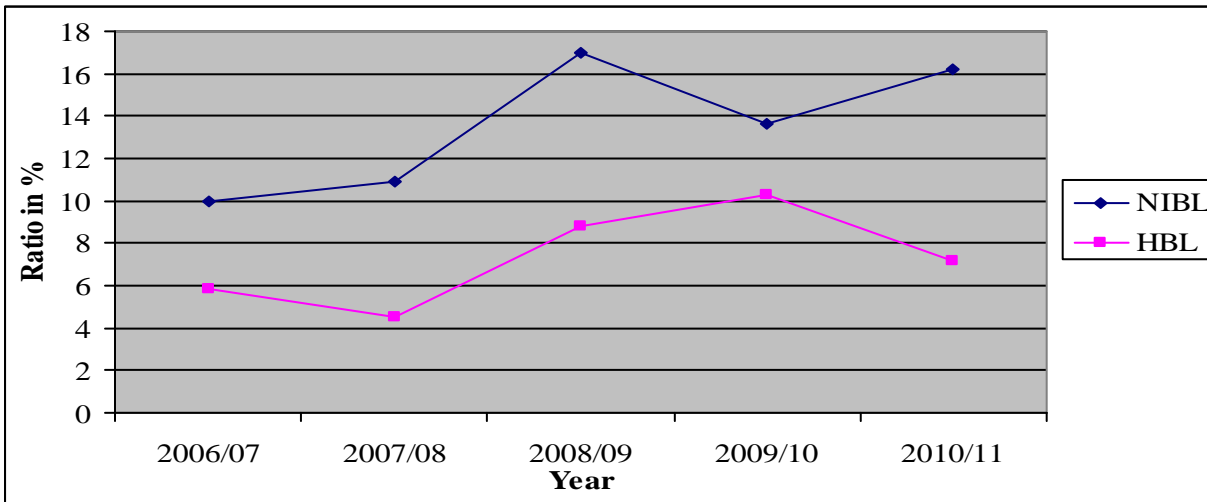


Table and figure 4.2 reveals that the Cash and bank balance to total deposit ratio of NIBL and HBL are in fluctuating trend. The highest ratio of NIBL is 16.95 percent in FY 2008/09 and lowest is 9.97 percent in F/Y 2006/07. Similarly, the highest ratio of HBL is 10.28 percent in FY 2009/10 and lowest ratio is 4.55 percent in 2007/08. The average mean ratio of NIBL and HBL are 13.534 percent and 7.334 percent respectively. The average ratio of NIBL has higher ratio

than the HBL, which shows its greater ability to pay depositors money as they want. Similarly, the coefficient of variation of NIBL is 0.229 times and HBL is 0.311 times. So C.V. of NIBL are lower than the HBL which indicate more consistency in its ratio.

The above analysis concludes that the cash and bank balance position of NIBL with respect to HBL is better in order to serve its customer's deposits. It implies better liquidity position of NIBL from the viewpoint of depositor demand. In contrast a high ratio of cash and bank balance may be undesirable which indicates the bank's inability to invest its funds in income generating areas.

C) Cash and Bank Balance to Current Assets Ratio

Cash and Bank Balance are the most liquid or quick assets. Cash and bank balance to current assets ratio represents the liquidity capacity of the banks as per cash and bank balance. Higher the ratios, better the ability of the banks to meet the daily cash requirement of their customers. Following table shows the cash and bank balance to current assets of NIBL and HBL.

Table No. 4.3

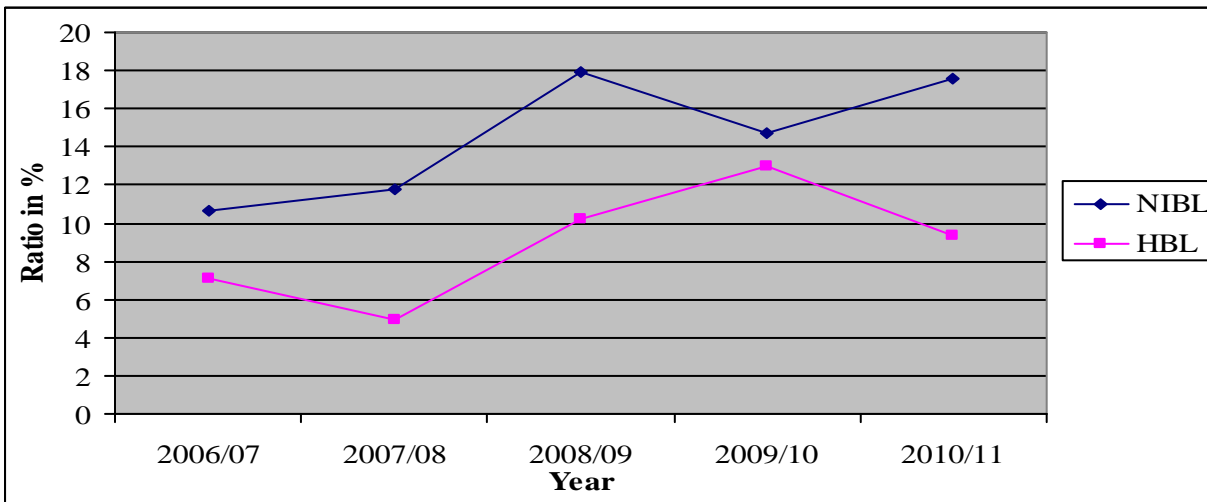
Cash and Bank Balance to Current Asset Ratio

Fiscal Year	NIBL			HBL		
	Cash and Bank Balance	Current Asset	Ratio	Cash and Bank Balance	Current Asset	Ratio
2006/07	2441.51	22929.1	10.65	1757.34	24812.27	7.08
2007/08	3754.94	31869.6	11.78	1448.14	29449.34	4.92
2008/09	7918	44095.57	17.95	3048.53	29813	10.23
2009/10	6816	46211.87	14.75	3866.49	29858	12.95
2010/11	8140.37	46260.2	17.59	2946.65	31590.73	9.33
Mean			14.544			8.902
S.d.			3.306			3.062
C.V.			0.2273			0.344

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.3

Cash and Bank Balance to Current Asset Ratio



The table and figure 4.3 reveals that cash and bank balance to current assets ratio of NIBL is in fluctuating trend over the study period. The highest ratio of NIBL is 17.95 percent in F/Y 2008/09 and lowest ratio is 10.65 in F/Y 2006/07. Similarly the highest ratio of HBL is 12.95 percent in F/Y 2009/10 and lowest ratio is 4.92% in F/Y 2007/08. The mean ratio of NIBL and HBL is 14.544 percent and 8.902 percent respectively. The higher mean ratio shows that NIBL's liquidity position is better than that of HBL. Moreover, the C.V. of NIBL is lower than HBL. The lower C.V. of NIBL indicates that it has more consistency in the ratios compared to HBL. Regarding the above analysis, it can be concluded that NIBL has a better ability to meet daily cash requirements of their customers but there is no fix policy to maintain the standard ratio of cash balance over the period.

D) Investment on Government Securities to Current Assets Ratio

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

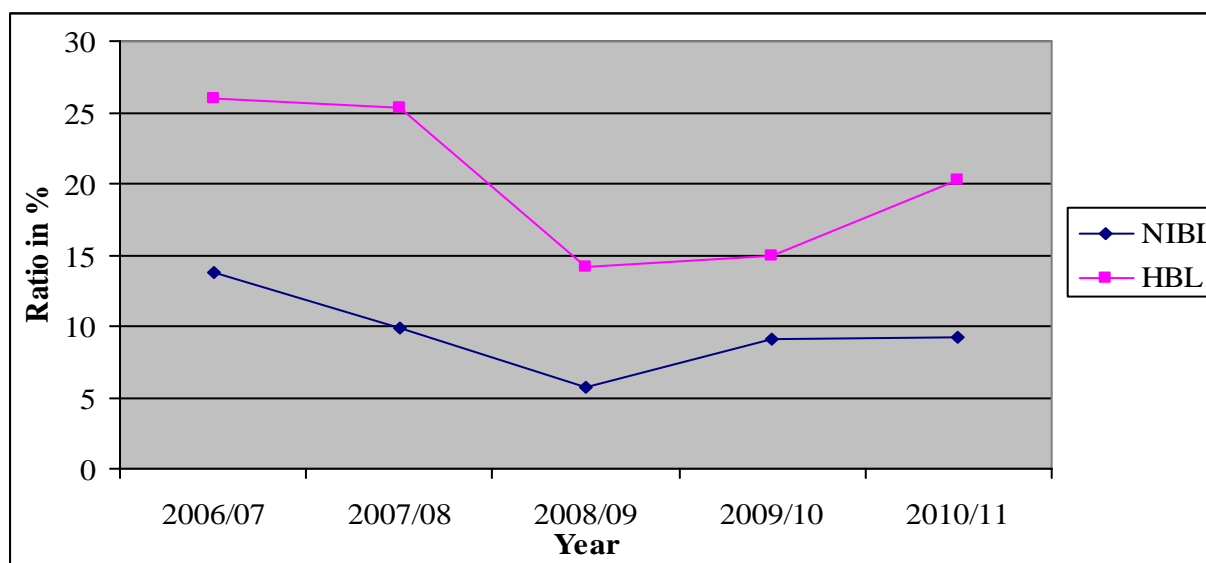
securities are the more secured investment alternatives. These securities are also called risk less investment but return generated is lesser than others risky assets.

Table No. 4.4
Investment on Government Securities to Current Assets Ratio

Fiscal Year	NIBL			HBL		
	Investment on Government Securities	Current Assets	Ratio	Investment on Government Securities	Current Assets	Ratio
2006/07	3155	22929.1	13.76	6454.86	24812.27	26.01
2007/08	3155	31869.6	9.89	7471.66	29449.34	25.37
2008/09	2531.3	44095.57	5.74	4212.3	29813	14.13
2009/10	4201.85	46211.87	9.09	4465.37	29858	14.96
2010/11	4294.6	46260.2	9.28	6407.36	31590.73	20.28
Mean			9.552			20.15
S.d.			2.856			5.585
C.V.			0.2990			0.2772

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.4
Investment on Government Securities to Current Assets Ratio



The table and figure 4.4 show investment on government securities to current assets ratio of NIBL and HBL. Both Banks have fluctuating ratios. The table show the highest ratio of NIBL is 13.76 percent in FY 2006/07 and lowest is 5.74 percent in FY 2008/09. In the same way, the highest ratio of HBL is 26.01 percent in FY 2006/07 and lowest is 14.13 percent in FY 2008/09.

The mean ratio of NIBL is 9.552 percent which is lower than the mean ratio of HBL 20.15 percent. It means HBL has invested more money in risk free assets than NIBL has. In another words HBL has emphasized more on loan and advances and other short term investment than investment in govt. securities. For minimization of investment risk, NIBL should divert its investment in govt. securities. Similarly, C.V. of NIBL is 0.299 and HBL has 0.2772 times respectively. The higher C.V. of NIBL shows the more inconsistency in the ratios with compare to HBL.

4.1.1.2 Assets Management Ratio

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

A) Loan and Advance to Total Deposit Ratio

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

Table No. 4.5

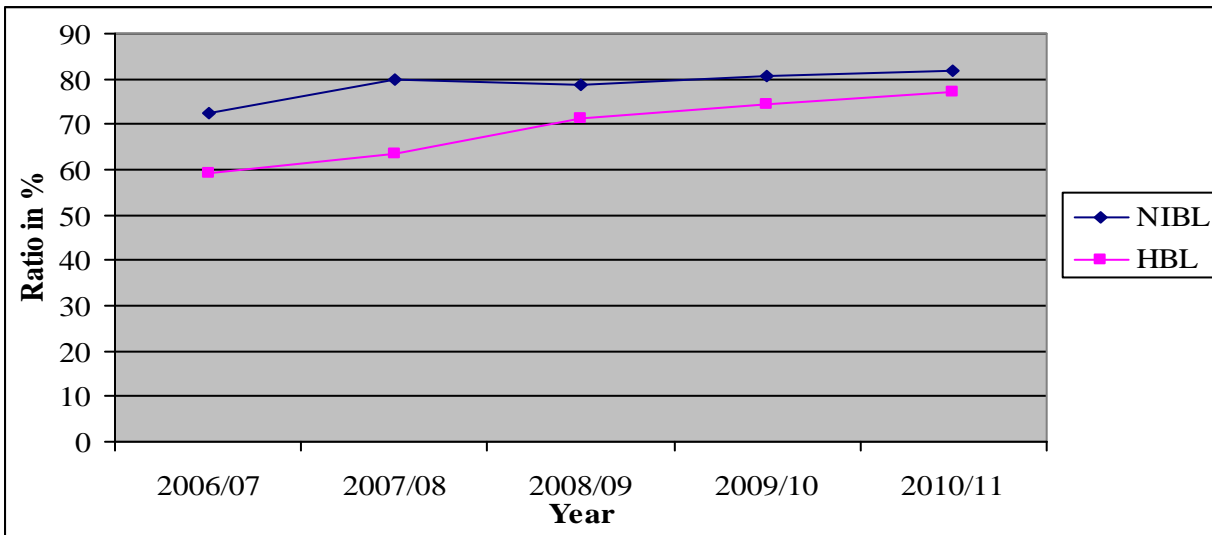
Loan and Advance to Total Deposit Ratio

Fiscal Year	NIBL			HBL		
	Loan and Advance	Total Deposit	Ratio in Percent	Loan and Advance	Total Deposit	Ratio in Percent
2006/07	17769.1	24488.85	72.56	17793.724	30048.418	59.22
2007/08	27529	34452	79.91	20179.61	31842.79	63.37
2008/09	36827.16	46698	78.86	24793.15	34681.35	71.49
2009/10	40318.31	50094.73	80.48	27980.63	37611.2	74.39
2010/11	41095.51	50138.12	81.96	31566.98	40920.63	77.14
Mean			78.754			69.122
S.d.			3.639			7.563
C.V.			0.0462			0.1094

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.5

Loan and Advance to Total Deposit Ratio



Above table and figure shows that the loan and advances to total deposit ratio of NIBL and HBL. The ratio of NIBL and HBL has increasing trend. The highest ratio of NIBL is 81.96% in F/Y 2010/11 and lowest ratio is 72.56% in F/Y 2006/07. Similarly highest ratio of HBL is 77.14% in

F/Y 2010/11 and lowest ratio is 59.22% in F/Y 2006/07. The mean ratio of NIBL and HBL are 78.754% and 69.122% respectively. Here NIBL has higher ratio than that of HBL. It indicates the better mobilization of deposit by NIBL as loan and advance. It reveals that the deposit of NIBL is quickly converted in to loan and advances to earn income. According to NRB directives less than 80% of loan and advances to total deposit ratio is required to enable better mobilization of collected deposit. But NIBL has more than that. The mean, S.D. and C.V of HBL of HBL has higher than NIBL which indicates more inconsistency in their ratios with compare to NIBL.

B) Total Investment to Total Deposit Ratio

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

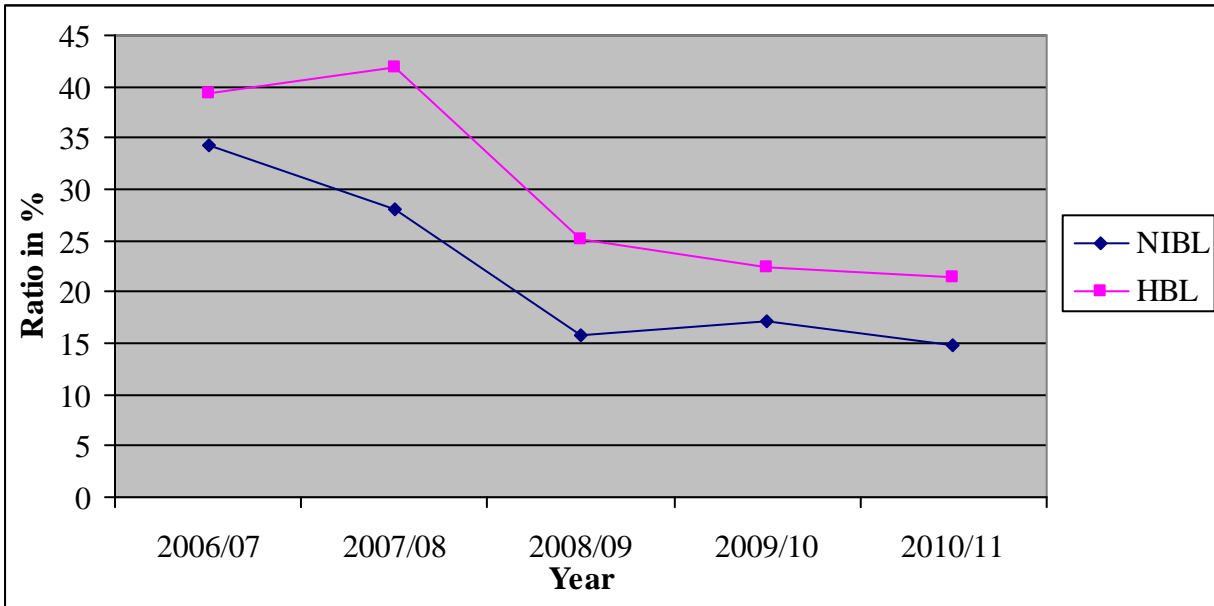
Table No. 4.6
Total Investment to Total Deposit Ratio

Fiscal Year	NIBL			HBL		
	Total Investment	Total Deposit	Ratio	Total Investment	Total Deposit	Ratio
2006/07	6505.7	24488.85	34.37	11822.99	30048.418	39.35
2007/08	6874.02	34452	28.07	13340.18	31842.79	41.89
2008/09	8635.53	50094.73	15.85	8710.69	34681.35	25.12
2009/10	7423.11	50138.12	17.24	8444.91	37611.2	22.45
2010/11	7423.11	50138.12	14.81	8769.94	40920.63	21.43
Mean			22.068			30.048
S.d.			8.689			9.786
C.V.			0.3937			0.3257

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.6

Total Investment to Total Deposit Ratio



Above table and figure show that total investment to total deposit ratio of NIBL and HBL. Both the banks have fluctuating decreasing trend in total investment to total deposit ratio. The highest ratio of NIBL is 28.07 percent in FY 2006/07 and lowest ratio is 14.81 percent in FY 2010/11 in the same way the highest ratio of HBL 41.89% percent in FY 2007/08 and lowest ratio is 21.43 percent in FY 2010/11. the ratio of both bank has decreasing form. The mean ratio of the NIBL and HBL are 22.068% and 30.048% respectively, which shows that HBL has a higher ratio. It signifies that HBL has successfully allocated its deposit in investment portfolio. The C.V. of NIBL has higher than HBL which indicate more inconsistent its ratio.

C) Loan and Advances to Total Assets Ratio

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

Table No. 4.7

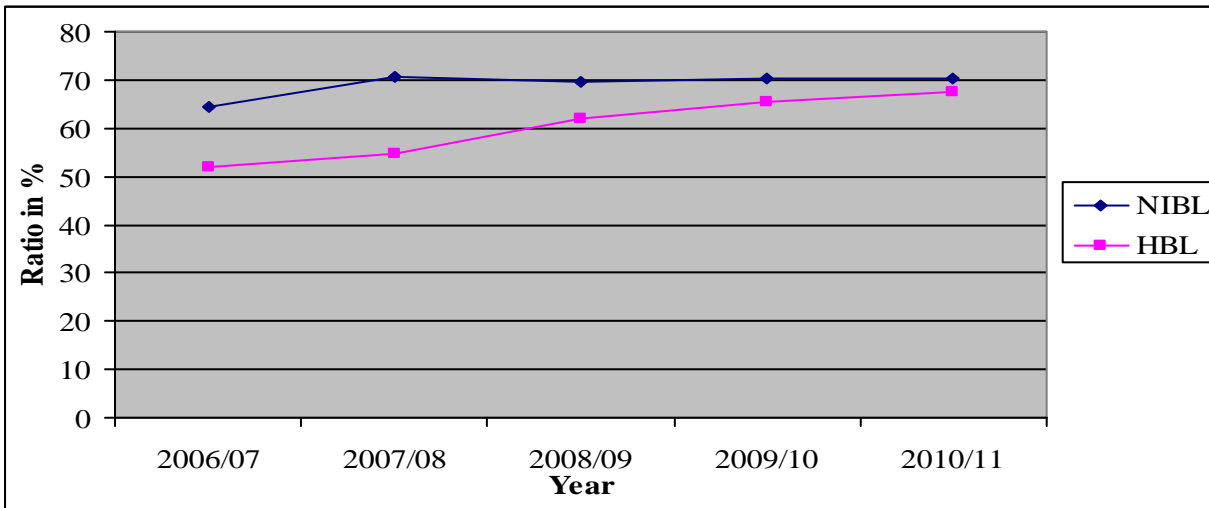
Loan and Advances to Total Assets Ratio

Fiscal Year	NIBL			HBL		
	Loan and Advances	Total Assets	Ratio in Percent	Loan and Advances	Total Assets	Ratio in Percent
2006/07	17769.1	27590.84	64.4	17793.724	34314.87	51.85
2007/08	27529	38873	70.82	20179.61	36857.62	54.75
2008/09	36827.16	53010	69.47	24793.15	40046.69	61.91
2009/10	40318.31	57305.41	70.35	27980.63	42717.12	65.50
2010/11	41095.51	58356.83	70.42	31566.98	46736.2	67.54
Mean			69.09			60.31
S.d.			2.669			6.787
C.V.			0.0386			0.1125

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.7

Loan and Advances to Total Assets Ratio



Above table and figure show the loan and advances to total assets ratio of NIBL and HBL during the study period. Loan and advances to total assets of both NIBL and HBL has increasing trend. While observing their ratios NIBL has constant and HBL has fickle. The highest ratio of NIBL is 70.82% in F/Y 2007/08 and lowest is 64.4 in F/Y 2006/07. Similarly the highest ratio of HBL is 67.54% in F/Y 2010/11 and lowest is 51.84% in F/Y 2006/07. The mean ratio of NIBL and HBL

are 69.09% and 60.31% respectively. Here NIBL has higher ratio than HBL. It reveals that in total assets of NIBL has high proportion as loan and advances. NIBL has utilized its total assets more efficiently in the form of loan and advances. The lower S.D and C.V. of NIBL than HBL states that it has more uniformity in these ratios throughout the study period than HBL. Both S.D. and C.V. of HBL have higher than the NIBL which indicate inconsistency in its ratio.

D) Investment on Government Securities to Total Assets ratio

It is not possible to convert all collection, deposit and other resources into loan and advances for the banks. Therefore, they arrange their total assets in various sectors. Among all possible sectors, investment on government securities is a less risky investment. Investment on government securities to total assets ratio measures how successfully selected banks have applied their total assets on various forms of government securities. Higher the ratio, the better the position of fund mobilization into investment on government securities and vice-versa.

Table No. 4.8

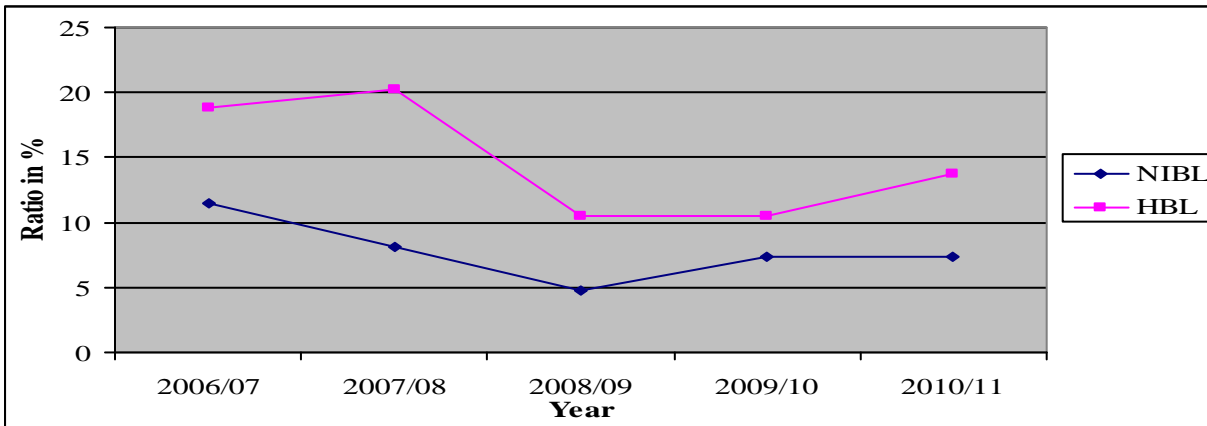
Investment on Government Securities to Total Assets ratio

Fiscal Year	NIBL			HBL		
	Investment on Government Securities	Total Assets	Ratio in Percent	Investment on Government Securities	Total Assets	Ratio in Percent
2006/07	3155	27590.84	11.43	6454.86	34314.87	18.81
2007/08	3155	38873	8.12	7471.66	36857.62	20.27
2008/09	2531.3	53010	4.77	4212.3	40046.69	10.52
2009/10	4201.85	57305.41	7.33	4465.37	42717.12	10.45
2010/11	4294.6	58356.83	7.36	6407.36	46736.2	13.71
Mean			7.802			14.752
S.d.			2.391			4.594
C.V.			0.3065			0.3114

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.8

Investment on Government Securities to Total Assets ratio



Above table and figure show that the investment on government treasury bills to Total assets of NIBL and HBL. The both banks have fluctuating trend. The highest ratio of NIBL is 11.43% in 2006/07 and HBL has 20.27% in 2007/08 and the lowest ratio of NIBL and HBL are 4.77% in 2008/09 and 10.45% in 2009/10 respectively. The mean ratio of NIBL and HBL are 7.802% and 14.752% respectively. The ratio of HBL has higher than NIBL. It means HBL has invested more assets in risk free assets than NIBL. In another words NIBL has emphasized more on loan and advances and other short-term investment than investment in govt. securities. There is more variability in the ratio of NIBL. It shows that there is more inconsistency in the ratio of HBL during the study period, which is indicated by higher C.V. of HBL which shows inconsistency in its investment in Govt securities.

4.1.1.3 Profitability Ratio

The major performance indicator of any firm is its profit. The objective of investment policy is to earn good return. Any organization has a desire to earn higher profit which would help the firm to survive and it also indicates the efficient operation of the firm. Profit is the essential part of business activities that helps to meet internal obligation, overcome the future contingencies, make a good investment policy, expand the banking transaction etc. Profitability ratios are the best indicators of overall efficiency. Here, these ratios presented and analyzed which are related with profit as well as fund mobilization. Through the following ratios, effort has been made to measure the profit earning capacity of NIBL and HBL.

A) Return on Loan and advances

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

Table No. 4.9

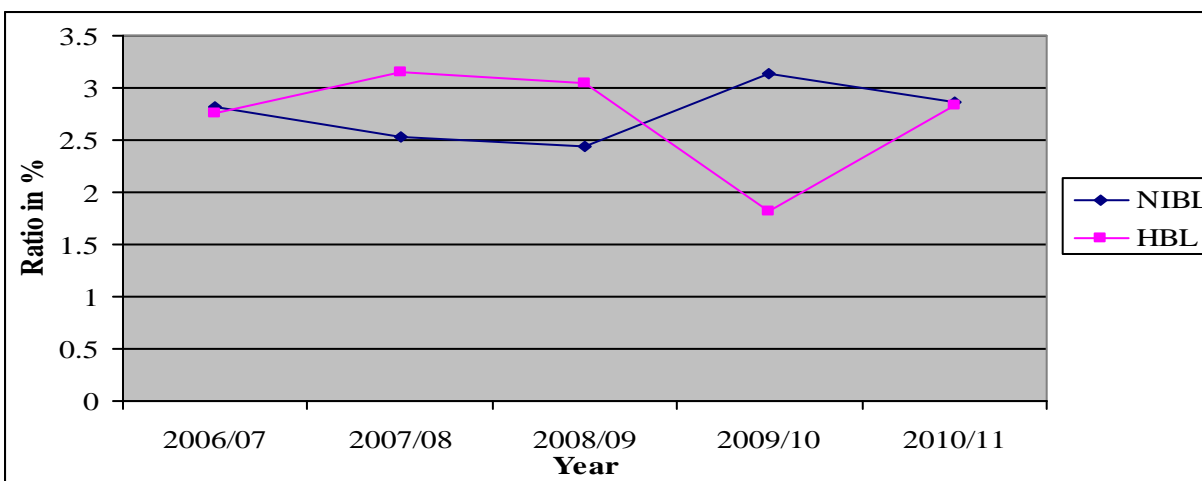
Return on Loan and advances

Fiscal Year	NIBL			HBL		
	Net Profit	Loan and Advances	Ratio	Net Profit	Loan and Advances	Ratio
2006/07	501.4	17769.1	2.82	491.824	17793.724	2.76
2007/08	697	27529	2.53	635.87	20179.61	3.15
2008/09	900.62	36827.16	2.44	752.83	24793.15	3.04
2009/10	1265.95	40318.31	3.14	508.8	27980.63	1.82
2010/11	1176.64	41095.51	2.86	893.12	31566.98	2.83
Mean			2.758			2.72
S.d.			0.279			0.527
C.V.			0.1015			0.1937

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.9

Return on Loan and advances



The table and figure 4.9 shows that return on loan and advances ratio of NIBL and HBL. The ratio of NIBL and HBL have fluctuating trend. The highest ratio of NIBL is 3.14% in the year 2009/10 and lowest ratio is 2.44% in year 2008/09. The mean ratio is 2.758%. Whereas highest ratio of HBL is 3.15% in year 2007/08 and lowest ratio is 1.82% in 2009/10. The mean ratio of HBL is 2.72%. This both banks show the normal earning capacity in loan and advances and same earning capacity in form of loan and advances. The average ratio of NIBL is little higher than HBL. Which indicate that return from loan and advance of NIBL is higher than HBL. It can be concluded that NIBL has utilized the loan and advance for the profit generation in earning capacity. However both banks seem to have poor performance in order to have returns from loan and advances because return on loan and advances is less than five percent as five percent is benchmarking ratio in this case.

B) Return on Total Assets

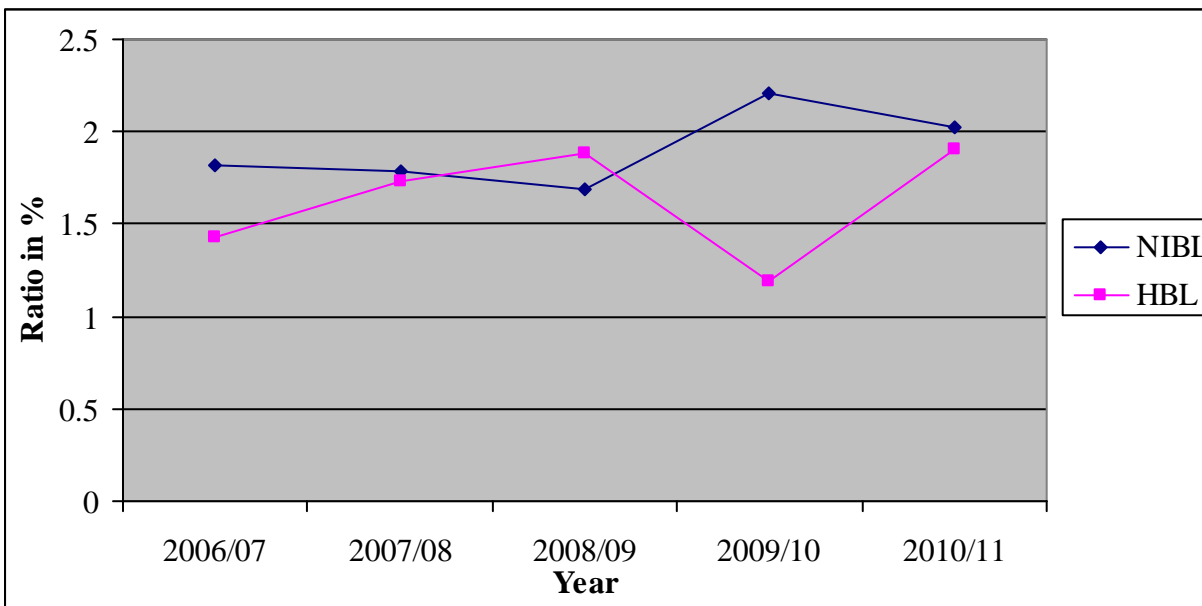
This ratio measures the overall profitability of all working fund i.e. Total assets. A firm has to earn satisfactory return on working funds for its survival. The following table shows return on total assets ratio of selected banks.

Table No. 4.10
Return on Total Assets Ratio

Fiscal Year	NIBL			HBL		
	Net Profit	Total Asset	Ratio	Net Profit	Total Asset	Ratio
2006/07	501.4	27590.84	1.82	491.824	34314.87	1.43
2007/08	697	38873	1.79	635.87	36857.62	1.73
2008/09	900.62	53010	1.69	752.83	40046.69	1.88
2009/10	1265.95	57305.41	2.21	508.8	42717.12	1.19
2010/11	1176.64	58356.83	2.02	893.12	46736.2	1.91
Mean			1.906			1.628
S.d.			0.208			0.310
C.V.			0.1091			0.1904

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.10
Return on Total Assets Ratio



Above table and figure shows the return on total assets of NIBL and HBL. This table states the net profit to total assets of selected banks has fluctuating during the study period. NIBL seems successful in managing and utilizing the available assets in order to generate revenue since its average ROA is 1.906% of total assets in an average which is higher than that of HBL of 1.628 percent. The highest ratio of NIBL has 2.21 percent and lowest ratio is 1.67. Similarly highest ratio of HBL is 1.91 and lowest ratio is 1.19 percent. Where as S.D. and C.V. of HBL has relatively high it indicate less uniformity in the ratios. So return from total asset of NIBL is relatively better than HBL.

C) Return on Equity

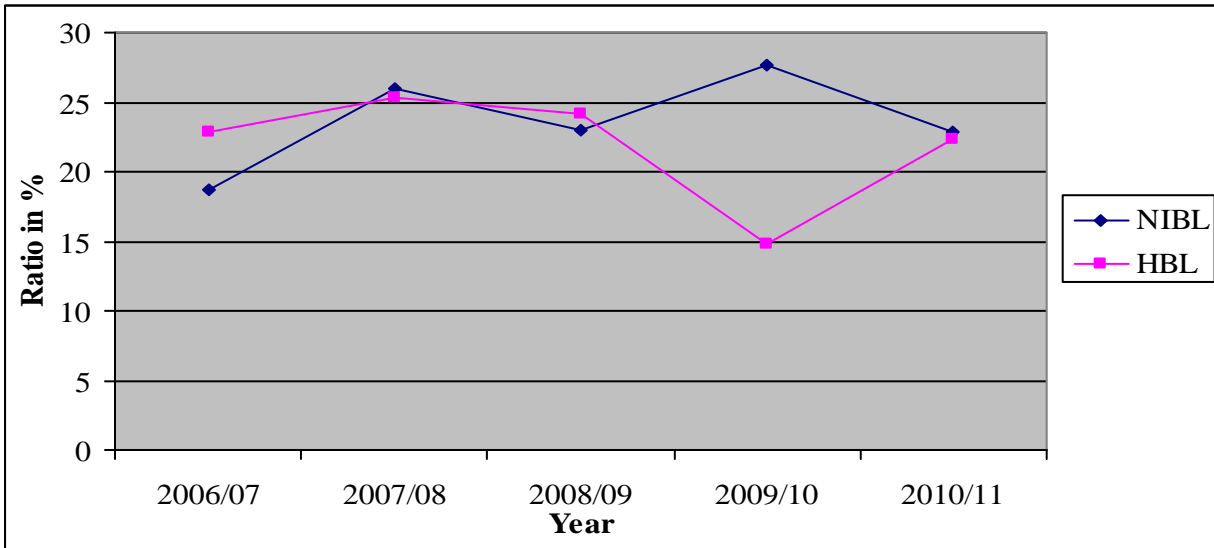
Equity capital of any bank is its owned capital. The prime objective of any bank is wealth maximization or in other words to earn higher profit and there by, maximizing return on its equity capital. Return on equity measures the profitability of a bank. It reflects the extend to which the bank has been successful to mobilize or utilize its equity capital. A higher ratio indicates higher success in mobilizing its owned capital and vice-versa. Following table shows the return on equity of NIBL and HBL during the study period.

Table No. 4.11
Return on Equity Ratio

Fiscal Year	NIBL			HBL		
	Net Profit	Total Equity	Ratio	Net Profit	Total Equity	Ratio
2006/07	501.4	2688.73	18.65	491.824	2146.5	22.91
2007/08	697	2686.78	25.94	635.87	2513	25.30
2008/09	900.62	3907.84	23.05	752.83	3119.88	24.13
2009/10	1265.95	4585.39	27.61	508.8	3439.2	14.79
2010/11	1176.64	5159.76	22.8	893.12	3995.48	22.35
Mean			23.61			21.896
S.d.			3.428			4.132
C.V.			0.1452			0.1887

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.11
Return on Equity Ratio



Above table and figure shows return on equity ratio of NIBL and HBL. Above data indicates that NIBL and HBL have fluctuating trend of return on equity ratio. The highest ratio of NIBL is 27.61% in F/Y 2009/10 and lowest ratio is 18.65% in F/Y 2006/07. Similarly highest ratio of

HBL is 25.30% in F/Y 2007/08 and lowest ratio is 114.79% in F/Y 2009/10. The average mean ratio of NIBL is 23.61 and HBL is 21.896 percent.

According to mean ratio NIBL is generating higher ROE in comparison with HBL. In brief, it signifies that the shareholders of NIBL are getting higher return but in case of HBL, they are getting lesser. It can be concluded that NIBL has better utilized the equity for the profit generation. It proves to be strength for NIBL in attracting future investment also while HBL shows its weakness regarding efficient utilization of its owner's equity in comparison to NIBL. HBL is relatively more inconsistent throughout the study period due to being its higher C.V than NIBL.

D) Interest Earned to Total Assets Ratio

Interest earned to total assets ratio evaluates how successful the selected banks are at mobilizing their total assets to achieve higher amount of interest. Higher ratio indicates higher interest income of the selected banks. The total interest earned to total assets ratio of NIBL and HBL.

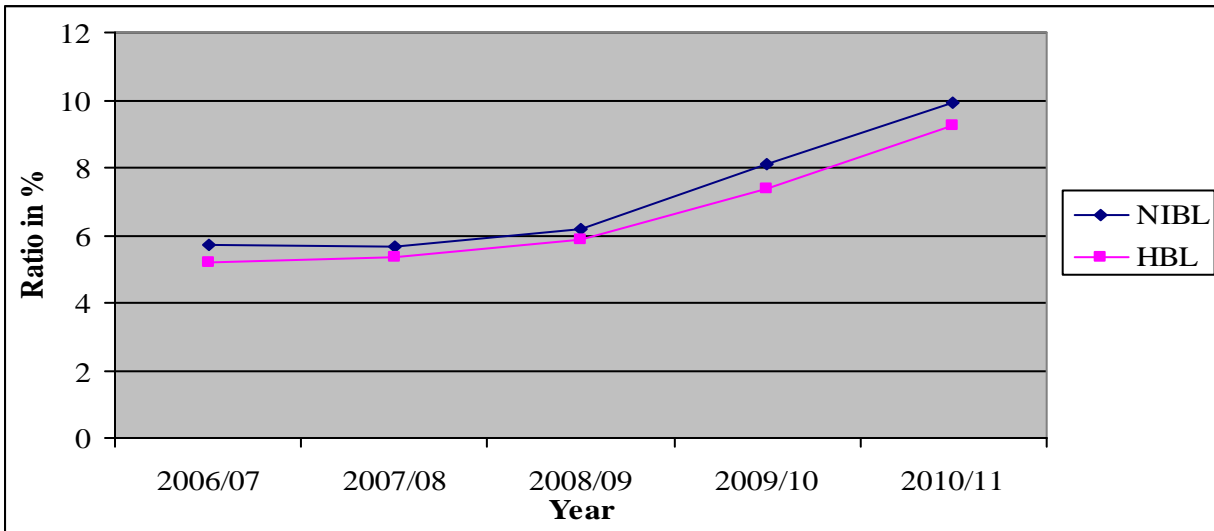
Table No. 4.12
Interest Earned to Total Assets Ratio

Fiscal Year	NIBL			HBL		
	Interest Earned	Total Assets	Ratio in Percent	Interest Earned	Total Assets	Ratio in Percent
2006/07	1584.99	27590.84	5.74	1775.583	34314.87	5.17
2007/08	2194.27	38873	5.64	1963.65	36857.62	5.33
2008/09	3267.94	53010	6.16	2342.2	40046.69	5.85
2009/10	4653.52	57305.41	8.12	3148.6	42717.12	7.37
2010/11	5803.44	58356.83	9.94	4326.14	46736.2	9.26
Mean			7.12			6.596
S.d.			1.869			1.724
C.V.			0.2625			0.2614

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.12

Interest Earned to Total Assets Ratio



Above table and figure shows the increased total interest earned to total asset ratio of NIBL and HBL. Both the banks have increasing total interest earned to total asset ratio during studied period. Which indicate both banks doing well in interest earning. The highest ratio of NIBL is 9.94 percent and lowest ratio is 5.64 percent similarly highest ratio of HBL is 9.26 percent and lowest ratio is 5.17 percent. The average mean ratio of NIBL and HBL are 7.12 and 6.596 percent respectively. The mean ratio of NIBL is more than that of HBL. Despite the higher interest earned to total assets of NIBL has inconsistency in its ratio. In comparison, NIBL seems effective in interest earning ratio than HBL. Moreover, HBL has higher uniformity in the ratios during the study period due to having lower C.V. anyway It can be concluded that both NIBL and HBL has successfully mobilized their fund in interest generating assets.

E) Total Interest Earned To Total outside Assets Ratio

The main assets of commercial banks are its outside assets, which includes loan and advances, investment on government securities, investment on shares and debentures and other all types of investment. Thus, this ratio reflects the extent to which the banks are successful to earn interest as major income on all the outside assets. A higher ratio indicates higher earning on such total assets and vice-versa. The following table exhibits the ratio of total interest earned to total outside assets of NIBL and HBL during the study period.

Table No. 4.13

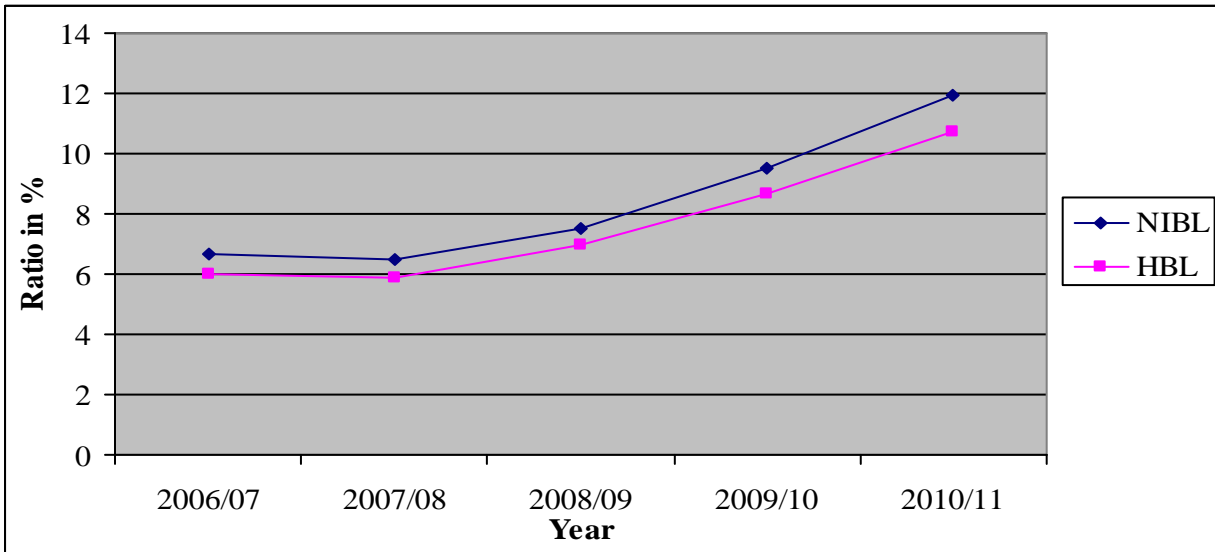
Total Interest Earned To Total outside Assets Ratio

Fiscal Year	NIBL			HBL		
	Interest Earned	Total outside Assets	Ratio in Percent	Interest Earned	Total outside Assets	Ratio in Percent
2006/07	1584.99	23792.11	6.66	1775.583	29616.71	6.00
2007/08	2194.27	33870.67	6.48	1963.65	33519.79	5.86
2008/09	3267.94	43641.02	7.49	2342.2	33503.85	6.99
2009/10	4653.52	48953.84	9.51	3148.6	36425.54	8.64
2010/11	5803.44	48518.62	11.96	4326.14	40336.92	10.73
Mean			8.42			7.644
S.d.			2.315			2.051
C.V.			0.275			0.2683

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.13

Total Interest Earned To Total outside Assets Ratio



Above table and figure shows the total interest earned to total outside assets ratio. The total interest earned to total outside assets ratio of both bank NIBL and HBL are in increasing during the study period. NIBL has highest ratio in the year 2010/11 with 11.96% and lowest in the years

2007/08 with 6.48%. Similarly, HBL has the highest ratio in the year 2010/11 with 10.73% and the lowest in the year 2007/08 with 5.86%. The mean ratio of NIBL and HBL are 8.42% and 7.644% respectively. Here NIBL seems to have more efficiency in generating total interest through well utilizations of outside assets. But it has relatively inconsistent returns. The C.V. of HBL is higher than NIBL so inconsistency in interest earned to total outside asset ratio.

F) Total interest earned to Total operating income Ratio

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

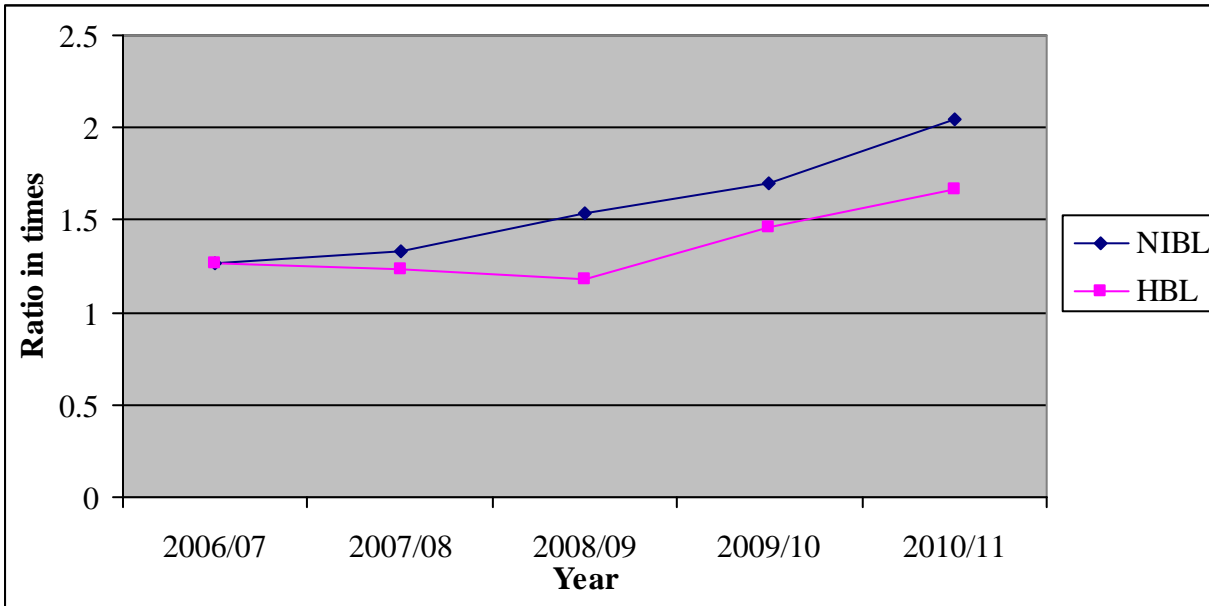
Table No. 4.14
Interest Earned to Operating Income Ratio

Fiscal Year	NIBL			HBL		
	Interest Earned	Operating Income	Ratio	Interest Earned	Operating Income	Ratio
2006/07	1584.99	1246.03	1.27	1775.583	1393.36	1.27
2007/08	2194.27	1649.62	1.33	1963.65	1597.5	1.23
2008/09	3267.94	2116.66	1.54	2342.2	1988.05	1.18
2009/10	4653.52	2734.93	1.70	3148.6	2157.96	1.46
2010/11	5803.44	2833.59	2.05	4326.14	2586.74	1.67
Mean			1.578			1.362
S.d.			0.314			0.202
C.V.			0.1993			0.1484

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.14

Interest Earned to Operating Income Ratio



Above table and figure shows interest earned to operating income ratio of NIBL and HBL. Both banks have increasing its ratio during the study period. The NIBL has greater share of total interest earn in its total operating income in most of the years and mean too. The average mean ratio of NIBL and HBL are 1.578 times and 1.362 times respectively. The higher ratio of NIBL has indicates the high contribution in operating income made by lending and investing activities (core banking activity). HBL has lower ratio, it indicates that high contribution in operating income is not made by lending and investing activities (core banking activity). High contribution in operating income made by lending and investing activities (core banking activity) may not good in long run but in short run it is not so bad. Thus, from short term view, HBL is in good condition. In overall, both banks have managed sound interest earned to operating income ratio. The S.D. and C.V of NIBL is higher than HBL. So the ratio of NIBL is more inconsistency than HBL.

4.1.1.4 Risk Ratio

Risk and uncertainty is a part of business. All the business activities are influenced by risk, so business organizations cannot achieve a good return as per their desires. The profitability of risk makes banks investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So the banks have to accept the risk

thoughtfully and manage it efficiently. A bank has to have idea of the level of risk that one has to bear while investing its funds. Through following ratios, effort has been made to measure the level of risk inherent in the NIBL and HBL.

A) Credit Risk Ratio

Credit risk ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. By definition, credit risk ratio is expressed as the percentage of non- performing loan to total Loan and Advances.

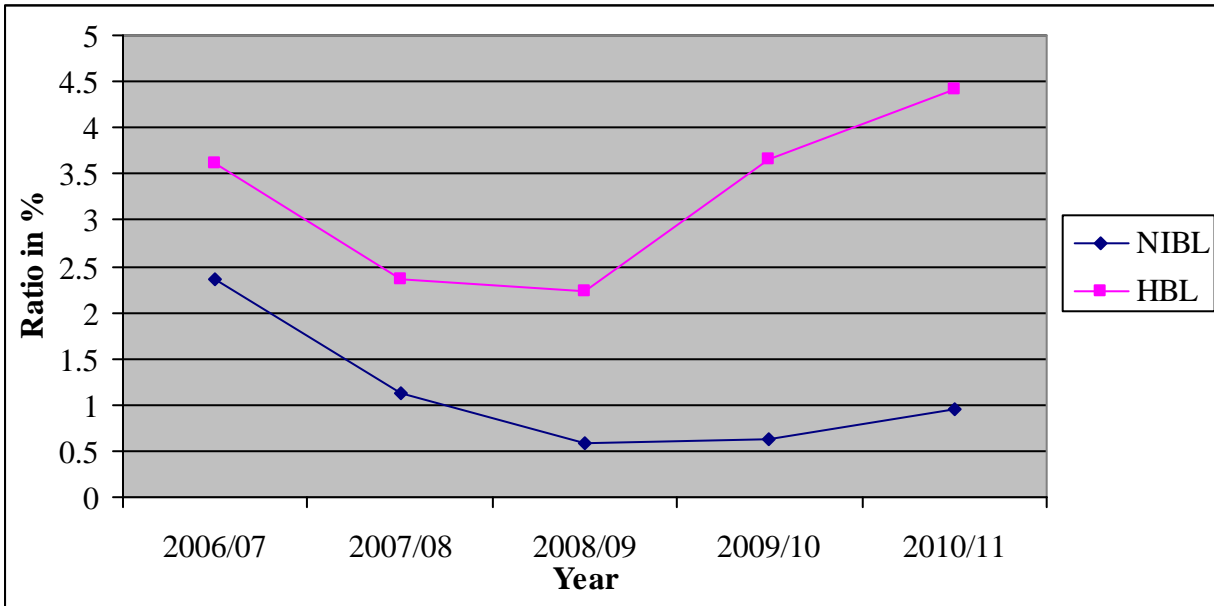
Bank utilizes its collected funds by providing credit to different sections. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. The credit risk ratio shows the proportion of non-performing assets in total Loan and Advances. Higher ratio indicates more risky assets in the volume of Loan and Advances of the bank and vice-versa.

Table No. 4.15
Credit Risk Ratio

Fiscal Year	NIBL			HBL		
	Non-Performing Loan	Total Loan	Ratio	Non-Performing Loan	Total Loan	Ratio
2006/07	421.97	17769.1	2.37	641.62	17793.724	3.61
2007/08	309.47	27529	1.12	477.23	20179.61	2.36
2008/09	213.91	36827.16	0.58	551.31	24793.15	2.22
2009/10	254.03	40318.31	0.63	1024.83	27980.63	3.66
2010/11	395.28	41095.51	0.96	1391.58	31566.98	4.41
Mean			1.132			3.252
S.d.			0.728			0.935
C.V.			0.6429			0.2875

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.15
Credit Risk Ratio



Above table shows that NPL to total loan and advances of NIBL and HBL are in decreasing and increasing at last. Decreasing trend is the good sign of efficient credit management. The mean non-performing loan to total loan and advances ratio of NIBL and HBL are 1.132% and 3.252% respectively during the study period. The ratio indicates that HBL has higher credit risk. These ratios indicate the more efficient operating of credit management of both banks according to NRB directives. However, in comparison, NIBL is more efficient at operating credit management than HBL. In another words, HBL is less efficient at operating credit management than NIBL. The NIBL bank has efficiently used the total loan and advances than that of HBL in credit risk aspect. Here NIBL is more successful in loan recovery because it has lower non performing loan in total loan and advances. The ratio of NIBL is inconsistency than HBL due to having higher C.V. so far.

(B) Liquidity Risk Ratio:

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets, they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity in need. This ratio is low if funds are kept idle as cash balance but this reduces

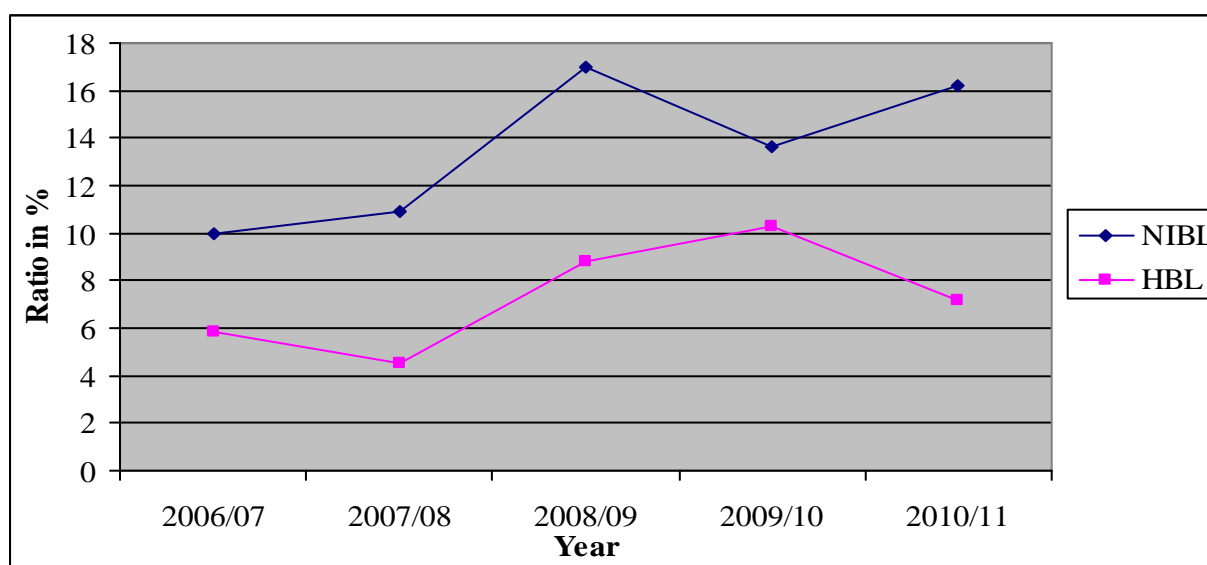
profitability, when the banks makes loan, its profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

Table No. 4.16
Liquidity Risk Ratio

Fiscal Year	NIBL			HBL		
	Cash and bank balance	Total Deposit	Ratio	Cash and bank balance	Total Deposit	Ratio
2006/07	2441.514	24488.85	9.97	1757.34	30048.418	5.85
2007/08	3754.94	34452	10.9	1448.14	31842.79	4.55
2008/09	7918	46698	16.95	3048.53	34681.35	8.79
2009/10	6815.89	50094.73	13.61	3866.49	37611.2	10.28
2010/11	8140.37	50138.12	16.24	2946.65	40920.63	7.20
Mean			13.534			7.334
S.d.			3.108			2.279
C.V.			0.2296			0.3107

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.16
Liquidity Risk Ratio



Above table and figure shows cash and bank balance to total deposits ratio of the NIBL and HBL. The ratio of NIBL and HBL have fluctuating trend. The highest ratio of NIBL is 16.95% in F/Y 2008/09 and lowest ratio is 9.97% in F/Y 2006/07. Similarly highest ratio of HBL is 10.28% in F/Y 2009/10 and lowest ratio is 4.55% in F/Y 2007/08 respectively. The average mean ratio of NIBL is 13.543% which is higher than that of HBL of 7.334%. It signifies that NIBL has sound liquid fund to make immediate payment to the depositors. The lower C.V. of NIBL indicates more consistency in its ratio than HBL.

C.) Asset Risk Ratio:

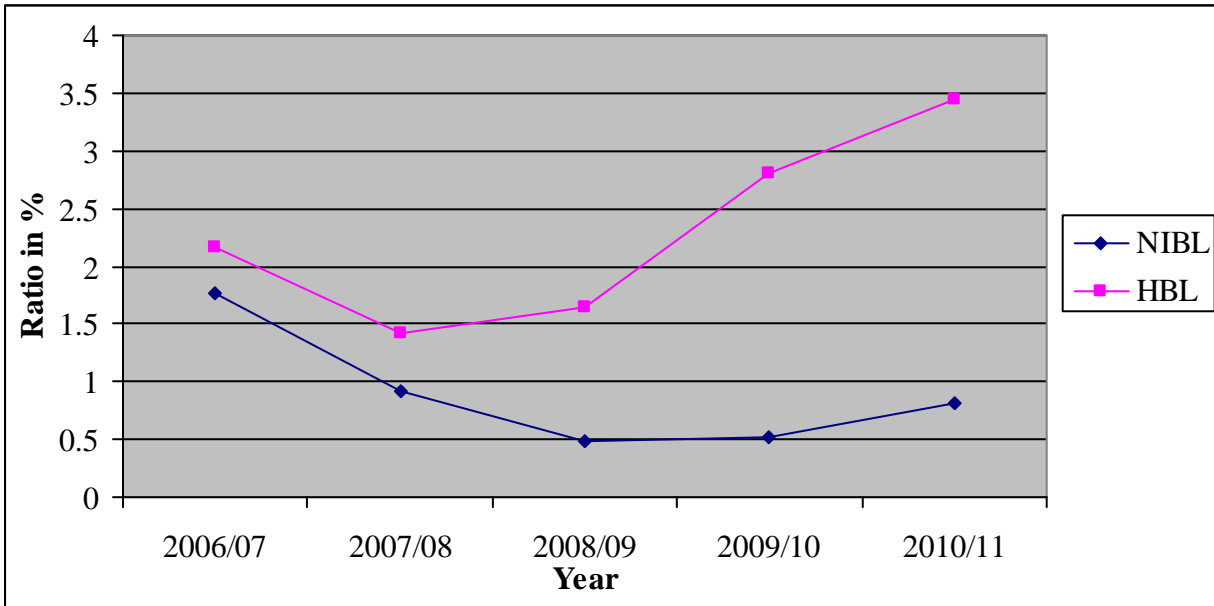
Bank utilizes its collected funds in providing credit to different sectors. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. Generally asset risk ratio shows proportion of non-performing assets in the total investment plus loan and advances of a bank it is computed as:

Table No. 4.17
Asset Risk Ratio

Fiscal Year	NIBL			HBL		
	NPL	Outside Asset	Ratio	NPL	Outside Asset	Ratio
2006/07	421.97	23792.11	1.77	641.62	29616.71	2.17
2007/08	309.47	33870.67	0.91	477.23	33519.79	1.42
2008/09	213.91	43641.02	0.49	551.31	33503.85	1.65
2009/10	254.03	48953.84	0.52	1024.83	36425.54	2.81
2010/11	395.28	48518.62	0.81	1391.58	40336.92	3.45
Mean			0.90			2.30
S.d.			0.519			0.836
C.V.			0.5767			0.3635

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.17
Asset Risk Ratio



Above table shows that non-performing asset to total outside asset ratio of NIBL and HBL. Both banks have decreasing trend and increasing at last. Decreasing trend is the good sign of efficient asset management. The highest ratio of NIBL is 1.77% and lowest 0.49%. Similarly highest ratio of HBL is 3.45% and lowest is 1.45%. The average mean non-performing asset to total outside asset ratio of NIBL and HBL are 0.90% and 3.45% during the study period. The HBL has higher asset risk ratio than NIBL. These Ratios indicate the more efficient operating of asset management of both banks. However, in comparison, HBL is more efficient in asset management than NIBL. It is even less than 1 percent. In another words, NIBL is less efficient at asset management than HBL. The ratio of NIBL is less consistency than HBL due to having higher C.V.

4.1.1.5 Other Ratios

A) Earning Per Share

EPS measure the efficiency of a firm in relative terms. It is a widely used ratio, which measures the profit available to the ordinary shareholders on per share basis. Earning per share calculation made over years indicates whether the bank's earning power on per share basis has changed over

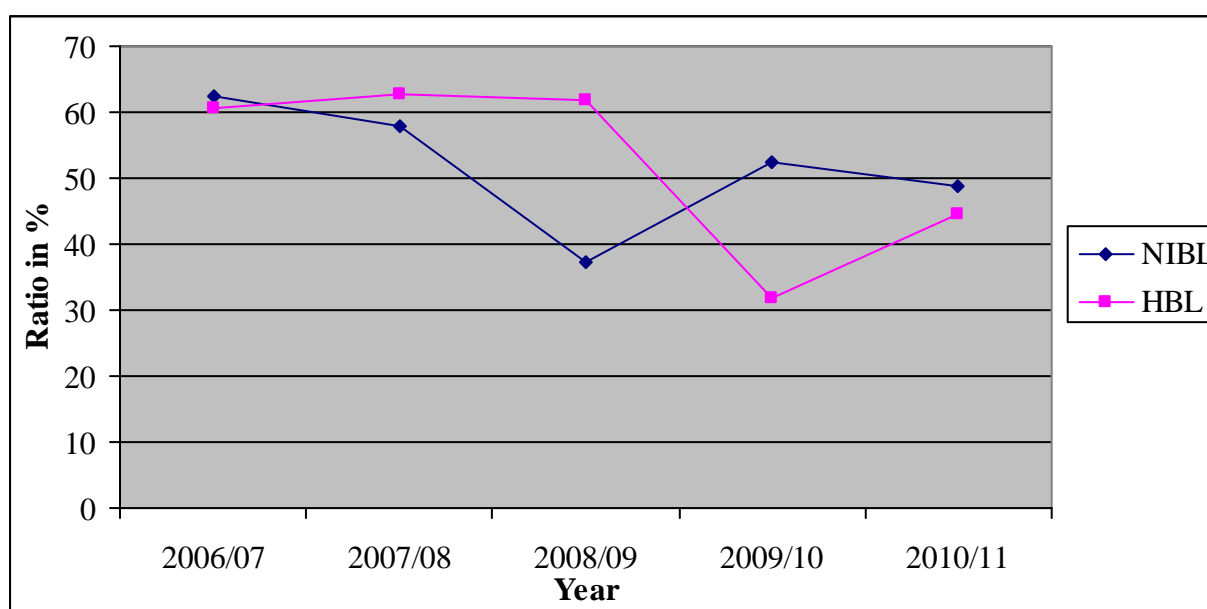
that period or not but it doesn't reflect how much is paid as dividend and how much is retained in the business. Following table shows the EPS of related banks during the study period.

Table No. 4.18
Earning Per Share

Fiscal Year	NIBL			HBL		
	Net profit	Total equity	Ratio	Net profit	Total equity	Ratio
2006/07	501.4	8013526	62.57	491.824	8108100	60.66
2007/08	697	12039154	57.89	635.87	10135125	62.74
2008/09	900.62	24070689	37.42	752.83	12162150	61.9
2009/10	1265.95	24090977	52.55	508.8	2000000	31.8
2010/11	1176.64	30113721.25	48.84	893.12	24000000	44.66
Mean			51.854			52.352
S.d.			9.607			13.689
C.V.			0.1853			0.2615

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.18
Earning Per Share



Above table and figure 4.18 shows that earning price per share of NIBL and HBL. Both NIBL and HBL have fluctuating form of its EPS. The average EPS of HBL is little higher than NIBL. While observing their ratios NIBL is better mobilizing it resources to get more earning per share (EPS) although both banks have fluctuating its EPS. The highest EPS of NIBL is 62.57 and lowest is 37.42 percent. Similarly highest EPS of HBL is 62.74 and lowest is 31.8 percent. The average EPS of NIBL and HBL are 51.854 and 52.352. The higher mean indicate successful to generating higher EPS of HBL. The S.D and C.V. of HBL is higher than NIBL which indicate inconsistency in its EPS.

B) Market Price per Share

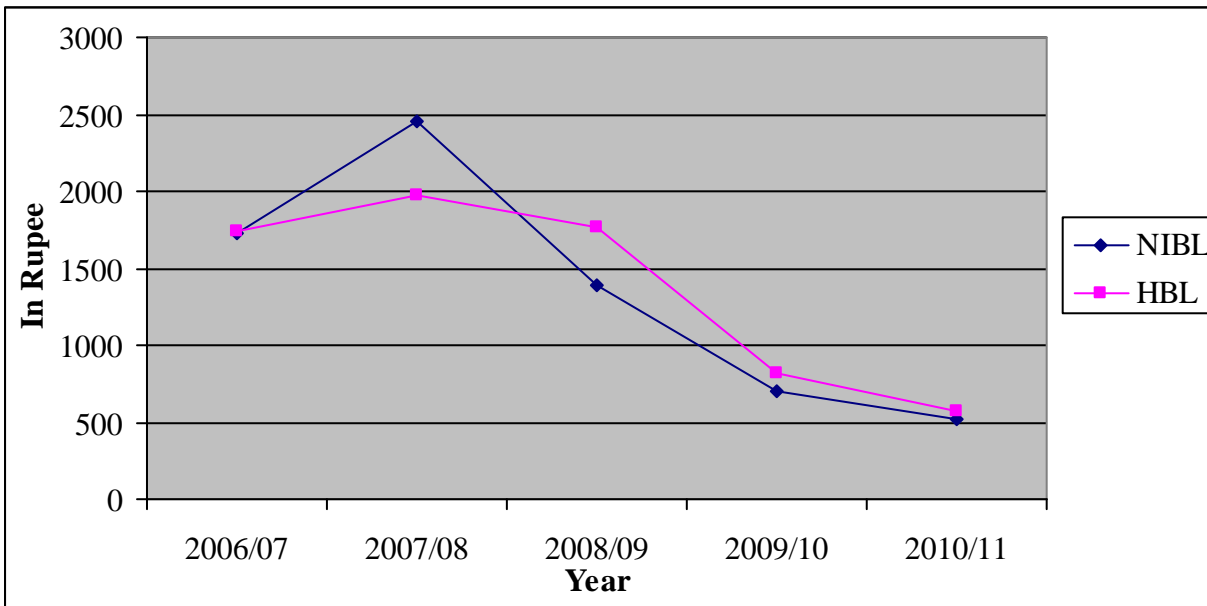
Market price per share is the price at which shares are traded in the stock market. The secondary markets provide liquidity for securities purchased in primary market. Generally MPS is determined through supply and demand factors.

Table No. 4.19
Market price per share (in Rs)

Fiscal Year	NIBL	HBL
	MPS	MPS
2006/07	1729	1740
2007/08	2450	1980
2008/09	1388	1760
2009/10	705	816
2010/11	515	575
Mean	1357.4	1374.2
S.d.	785.50	632.45
C.V.	0.5787	0.4602

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.19
Market price per share



Above table and figure shows market price of the share of NIBL and HBL. Both bank NIBL and HBL has decreasing its share price from second fiscal year 2007/08 during the study period. It indicates that recession in share market start from F/Y 2007/08. This tends low performance of company and low expectation from company. The highest MPS of NIBL is Rs 2450 and lowest is 515 similarly highest MPS of HBL is 1980 and lowest is 575. Average mean price of HBL is higher than that of NIBL i.e. 1374 > 1357 Rupee. It indicates that shareholder of HBL are getting higher price. The S.D. and C.V. of NIBL have higher which indicate high fluctuation than HBL.

C) Price Earning Ratio

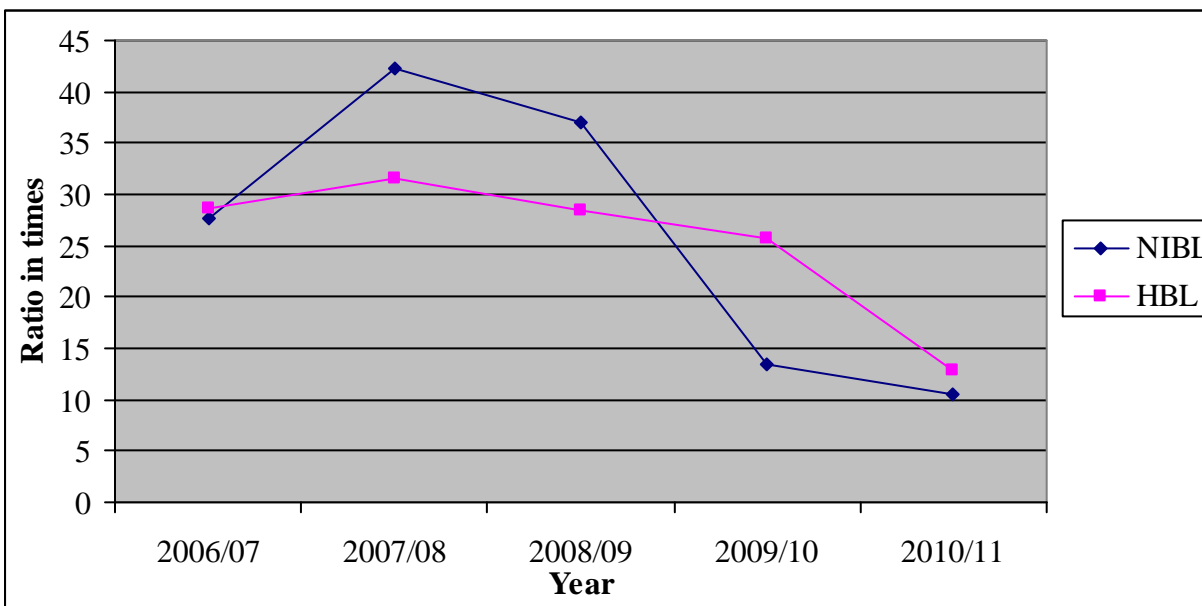
Price earning ratio is closely related to the earning per share. It is calculated by dividing the market value per share by EPS. Price earning ratio indicates investor's judgments or expectation about the firm's performance. This ratio widely used by the security analysis to value the firm's performance. This ratio widely used by the security analysis to value the firm's performance as accepted by investors. Price earning ratio reflects investor expectations about the growth in the firm's earning. Higher ratio indicates the more value of the stock that is being ascribed to future earning as opposed to present earning.

Table No. 4.20
Price Earning Ratio

Fiscal Year	NIBL			HBL		
	MPS(in Rs)	EPS (in Rs)	PE/Ratio	MPS(in Rs)	EPS (in Rs)	PE/Ratio
2006/07	1729	62.57	27.63	1740	60.66	28.68
2007/08	2450	57.89	42.33	1980	62.74	31.56
2008/09	1388	37.42	37.1	1760	61.9	28.43
2009/10	705	52.55	13.42	816	31.8	25.66
2010/11	515	48.84	10.55	575	44.66	12.88
Mean			26.21			25.44
S.d.			14.047			7.326
C.V.			0.536			0.288

Source: Annual Report of Concern Banks (F/Y 2006/07 to 2010/11)

Figure No 4.20
Price Earning Ratio



Above table and figure shows that price earning ratio earning of NIBL and HBL. The P E ratio NIBL and HBL are decreasing from F/Y 2007/08. From the mean point of view, mean ratio of

the NIBL and HBL are 26.21 and 25.44 times respectively. It indicates that for getting Rs 1 as earning, one should invest Rs 26.21 in NIBL and Rs 25.44 in HBL. Looking the mean ratio we conclude that in short run, investor of NIBL are getting better profitability because they are selling their shares in high price. But from the long term view and sustainable fair price, investor of HBL will get better profitability and they will be in safe side a little bit in comparison with NIBL. The S.D and C.V of NIBL is also high than the HBL it indicate its contradiction to invest in NIBL rather than the HBL. Anyway both banks are measure as almost equally.

4.2 Statistical Analysis

Statistical tool is one of the important tools to analyze the data. There are various tools for the analysis of tabulated data such as, mean, standard deviation, regression analysis, co-relation analysis, trend analysis, various types of tests etc. There is convenient statistical tools are used in this thesis study.

4.2.1 Coefficient of Correlation Analysis

Co-efficient of co-relation shows the relationship between two or more than two variables. It measures that the two variables are positively or negatively co-related. For this purpose, Karl Pearson's co-efficient of correlation has been taken and applied to find out and analyze the relationship between deposit and loan and advances, deposit and total investment, total assets and net profit, total investment and net profit and also analyze the correlation of total deposit, total investment, loan and advances and net profit NIBL and HBL using Karl Persons coefficient of correlation, value of coefficient of determination (R^2) probable error (P.Er.) and (6 P.Er.) are also calculated and value of them are analyzed.

A) Correlation Coefficient between Deposit and Loan and Advances

Deposit have played vary important role in performance of a commercial banks and similarly loan and advances are very important to mobilize the collected deposits. Co-efficient of correlation between deposit and loan and advances measures the degree of relationship between these two variables. In this analysis, deposit is independent variable (X) and loan and advances are dependent variable (Y). The main objectives of computing 'r' between these two variables is to justify whether deposit are significantly used as loan and advances in proper way or not.

Table No. 4.21

Correlation between Deposit and Loan and Advances

Name of Banks	Evaluation Criteria				
	r	r ²	P.Er.	6 P.Er.	Remarks
NIBL	0.998	0.996	0.0012	0.0072	Significant
HBL	0.996	0.992	0.0024	0.0145	Significant

Source: Through SPSS Data Editor

In above table 4.21, it is found that coefficient of correlation between deposits and loan and advances of NIBL and HBL are 0.998 and 0.996. It is shows that both have the positive relationship between these two variables. It refers that deposit and loan and advances of NIBL and HBL moves together very closely. Moreover, the coefficient of determination of NIBL is 0.996. It means 99.6 percent of variation in loan and advances has been explained by deposit. Similarly, value of coefficient of determination of HBL is 0.992. It refers that 99.2 percent variance in loan and advances are affected by total deposit. The correlation coefficient of both banks is significant because the correlation coefficient is greater than the relative value of 6 P. Er. In other words, there is significant relationship between deposits and loan and advances of NIBL and HBL.

B) Coefficient of Correlation between Total Deposits and Total Investment

The coefficient of correlation between deposit and investment measures the degree of relationship between these two variables or deposit is significantly utilized or not. In correlation analysis, deposit is independent variable (X) and total investment is dependent variable (Y). The following Table No. 4.24 shows the coefficient correlation between deposits and total investments i.e. r, P. Er., 6 P. Er. and coefficient of determination (R²) of NIBL and HBL during the study period.

Table No. 4.22
Correlation between Deposit and Total Investment

Name of Banks	Evaluation Criteria				
	r	r ²	P.Er.	6 P. Er.	Remarks
NIBL	0.812	0.659	0.1028	0.6166	Significant
HBL	-0.784	0.615	0.1162	0.6974	Insignificant

Source: Through SPSS Data Editor

The Table 4.22 shows the coefficient of correlation between total deposit and total investment of NIBL and HBL. The correlation of NIBL is 0.812. It shows the normal degree of positive correlation. In addition, coefficient of determination of NIBL is 0.659, It means only 65.9 percent of total investment is explained by total deposit. The correlation coefficient is significant because the correlation coefficient is more than 6 P. Er. It refers that there is significant relationship between total deposit and total investment of NIBL.

Similarly, correlation coefficient between total deposit and total investment of HBL is negative by -0.784, which refer negative relation between these two variables. The value of coefficient of determination is 0.615 this refers that only 61.5 percent of the variation in total investment is explained by total deposit least are determined by other factor. The correlation coefficient is insignificant because the correlation coefficient is lower than 6 P. Er. It refers that there is insignificant relationship between total deposit and total investment of HBL.

From the above analysis, the conclusion can be drawn in the case of NIBL and HBL that NIBL has high degree positive correlation where as HBL has negative correlation. This indicates that NIBL is successful to mobilize its deposit in proper way in comparison to HBL.

C) Co-efficient of Correlation between Loan and advance and Net Profit

Co-efficient of correlation between total assets and net profit is used to measure the degree of relationship between two variable i.e. Loan and advance and net profit of NIBL and HBL during the study period. Where Loan and advance is independent variable (X) and net profit is dependent variable (Y). The main objective of calculating this ratio is to determine the degree of

relationship whether there the net profit is significantly correlated or not and the variation of net profit to loan and advance through the coefficient of determination. The following table shows the 'r', R², P.Er. and 6 P. Er. between those variables of NIBL and HBL for the study period.

Table No. 4.23
Correlation between Loan and advance and Net profit

Name of Banks	Evaluation Criterions				
	R	r ²	P.Er.	6 P.Er.	Remarks
NIBL	0.951	0.904	0.0288	0.1730	Significant
HBL	0.623	0.388	0.1846	1.1074	insignificant

Source: Through SPSS Data Editor

Above table shows correlation coefficient between loan & advance and net profit is 0.951 of NIBL. It refers that there is positive correlation between these two variables. Here, 90.4 percent of net profit is contributed by loan and advance as its coefficient of determination is 0.904 shows. Moreover, this relationship is significant because the coefficient of correlation is more than 6 P.Er. Likewise HBL also has positive correlation between loan & advance and net profit by 0.623. The coefficient of determination R² is 0.388 which indicates that only 38.8 percent variability in net profit is explained by loan and advance. The correlation coefficient is less than 6 P.Er. so relationship between loan and advance and net profit is insignificant for HBL. It refers that there is insignificant relationship between total deposit and total investment of HBL. In calculation, NIBL has more significant relationship between loan and advance and net profit than that of HBL.

D) Coefficient of correlation between Total Deposit and Net Profit

Coefficient of correlation between total deposit and net profit measures the degree of relationship between these two variables. In this analysis, deposit is independent variables (X) and net profit is dependent variable(Y). The main objective of computing "r" between these two variables is to justify whether deposits are significantly used to get proper net profit or not. The table shows the value of r, r², probable Error (P.Err) and 6 P.Er. between total deposit and net profit of NIBL and HBL.

Table No. 4.24

Correlation between Total Deposit and Net Profit

Name of Banks	Evaluation Criteria				
	r	r ²	P.Er.	6 P.Er.	Remarks
NIBL	0.948	0.899	0.0305	0.1833	Significant
HBL	0.630	0.397	0.1819	1.0916	Insignificant

Source: Through SPSS Data Editor

The table shows the correlation coefficient between total deposit and net profit of NIBL and HBL. The correlation coefficient between total deposit and net profit of NIBL is 0.948, which implies there is positive correlation between total deposit and net profit. In addition, coefficient of determination of NIBL is 0.899. It means 89.9 percent of profit is contributed by total total deposit. The correlation is significant at all due to coefficient of correlation is higher than 6 P Err. On the other hand HBL has low degree of positive correlation between total deposit and net profit i.e. 0.630. The coefficient of determination of HBL is 0.397 It means only 39.7 percent of profit is contribute by total deposit. This relationship is insignificant as its correlation coefficient is lower than 1.0916. The NIBL has significant relationship but HBL has insignificant relationship between total deposit and net profit. Thus it can be concluded that the degree of relationship between total deposit and net profit of HBL is poor than that of NIBL.

4.2.2 Time Series Analysis (Trend Analysis)

Trend analysis plays an important role in the analysis and interpretation of financial statement. Trend in general terms, signifies a tendency. It helps in forecasting and planning future operation. Trend analysis is a statistical tool, which shows the previous trend of the financial performance and forecasts the future financial results of the firms.

A) Trend Analysis of Total Deposit:

Deposits are the important part in banking sector hence its trend for next seven years will be forecasted for future analysis. This is calculated by the least square method. Here the effort has been made to calculate the trend values of Total deposit of NIBL and HBL for further eight year

$$Y = a + bx$$

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where $x = X - \text{Middle year}$

Where as

$$Y_c = 40486.32 + 6345 * X \text{ of NIBL}$$

$$Y_c = 35020.878 + 2751.28 * X \text{ of HBL}$$

Table No. 4.25

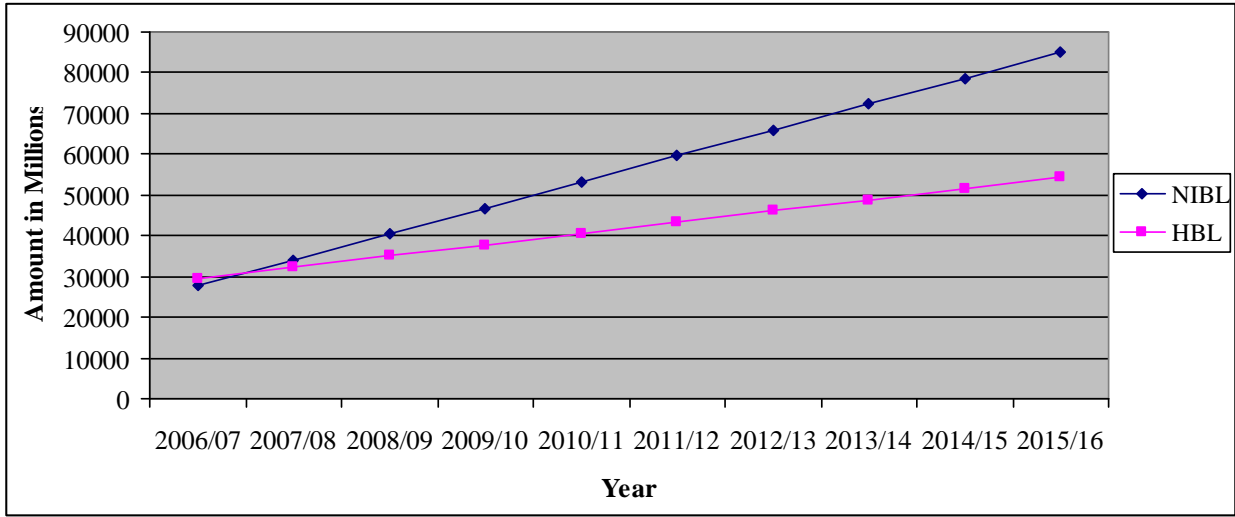
Trend analysis of Total Deposit of NIBL and HBL		
Year(x)	NIBL	HBL
2006/07	27794.8	29518.32
2007/08	34140.5	32269.6
2008/09	40486.3	35020.88
2009/10	46832.1	37772.16
2010/11	53177.9	40523.44
2011/12	59523.7	43274.72
2012/13	65869.4	46026
2013/14	72215.2	48777.28
2014/15	78561	51528.56
2015/16	84906.8	54279.84

Source: Trend value of Concern Bank

Appendix -1

Figure No 4.21

Trend Line of Total Deposit of NIBL and HBL



Above table and figure shows that trend of total deposit of NIBL and HBL. Both Banks is in increasing trend. The rate of increment of total deposit for NIBL seems to be higher than that of HBL. The actual trend value of total deposit for NIBL is more than that of HBL. The trend analysis has projected deposit amount in fiscal year FY 2011/12 to FY 2015/16. From the above trend analysis it is clear that NIBL has higher position in collecting deposit than HBL.

B) Trend Analysis of Loan and advances

Here, the trend values of loan and advances Between NIBL and HBL have been calculated for further five year. The following Table shows the actual and trend values of NIBL and HBL.

$Y = a + bx$

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x \dots\dots\dots (I)$

$Y_c = 32707.82 + 5944.213 * X$ of NIBL

$Y_c = 24462.82 + 3534.75 * X$ of HBL

Table No. 4.26

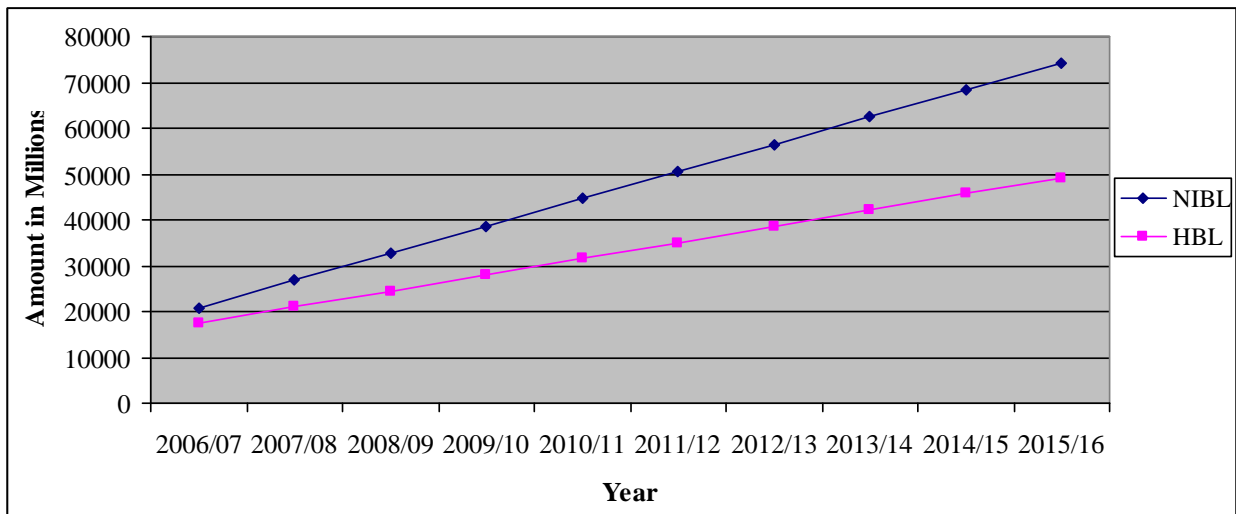
Trend analysis of Total Loan and Advance of NIBL and HBL		
Year(x)	NIBL	HBL
2006/07	20819.4	17393.32
2007/08	26763.6	20928.07
2008/09	32707.8	24462.82
2009/10	38652	27997.57
2010/11	44596.2	31532.32
2011/12	50540.5	35067.07
2012/13	56484.7	38601.82
2013/14	62428.9	42136.57
2014/15	68373.1	45671.32
2015/16	74317.3	49206.07

Source: Trend value of Concern Bank

Appendix - 2

Figure No 4.22

Trend line of Total Loan and Advance of NIBL and HBL



Above table and figure depicts that trend of loan and advances of NIBL and HBL. Both Banks has in increasing trend. The increasing trend of NIBL is higher and aggressive than HBL. The value of loan and advances for HBL is quite fluctuating in relation to NIBL. The trend projected

for father five year FY 2011/12 to FY 2015/16 From the above analysis, it is clear that both NIBL and HBL is mobilizing its collected deposits and other funds in the form of loan and advances. But above table and figure shows NIBL has highly mobilizing loan and advances than the HBL.

C) Trend Analysis of Total Investment

Under this topic has been made to analyze trend analysis total investment of NIBL and HBL.

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where $x = X - \text{Middle year}$

$$Y_c = 7362.97 + 478.545 * X \text{ of NIBL}$$

$$Y_c = 10217.74 - 1100.137 * X \text{ of HBL}$$

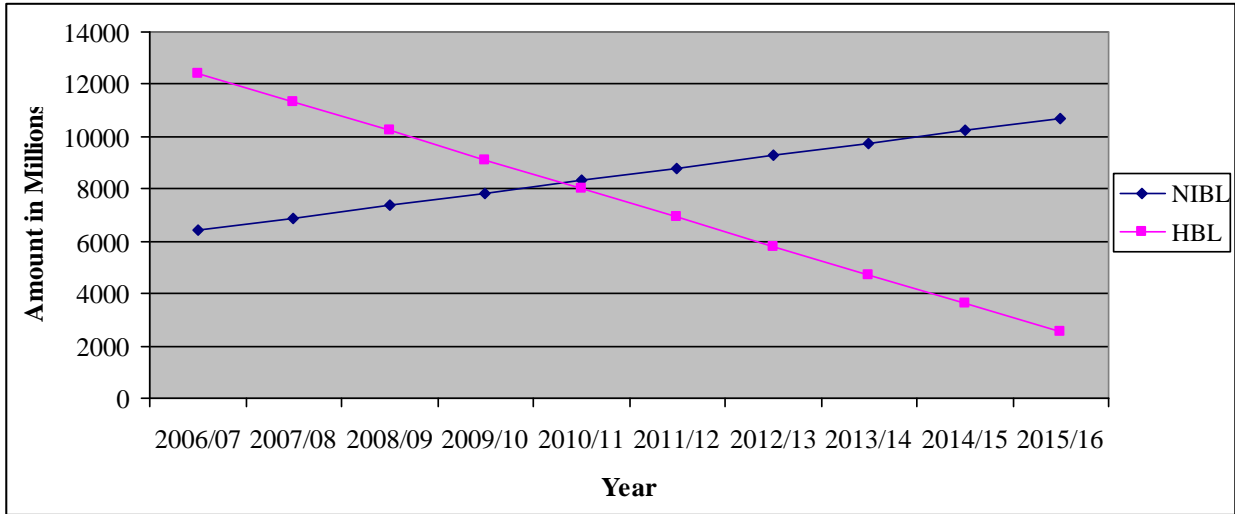
Table No. 4.27

Trend analysis of Total Investment Between NIBL and HBL		
Year(x)	NIBL	HBL
2006/07	6405.88	12418.01
2007/08	6884.43	11317.88
2008/09	7362.97	10217.74
2009/10	7841.52	9117.603
2010/11	8320.06	8017.466
2011/12	8798.61	6917.329
2012/13	9277.15	5817.192
2013/14	9755.7	4717.055
2014/15	10234.2	3616.918
2015/16	10712.8	2516.781

Source: Trend value of Concern Bank

Figure No 4.23

Trend Line of Total Investment between NIBL and HBL



Above table and figure shows the trend of total investment between NIBL and HBL. The NIBL has increasing trend where as HBL has decreasing trend in making investment. The trend shows that NIBL has little increasing trend, but HBL has decreasing trend of total investment. The trend of total investment projected to further five year. The forecasted trend projected that the NIBL has positive increment rate in total investment and HBL has downward and decreasing rate of HBL. The figure indicates that NIBL has highly mobilized the total investment rather than HBL.

E) Trend Analysis of Net Profit

Net profit is the final income of bank after deducting all expenses. Here, the trend values of net profit of NIBL and HBL have been calculated for five years FY 206/07 to FY 2010/11 and forecasting further next five year till FY 2015/16.

$Y = a + bx$

Where,

Y= dependent variable

a=Y-intercept

b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x \dots\dots\dots (I)$

Where x = X - Middle year

$$Y_c = 908.32 + 191.943 * X \text{ of NIBL}$$

$$Y_c = 656.49 + 67.55 * X \text{ of HBL}$$

Table No. 4.28

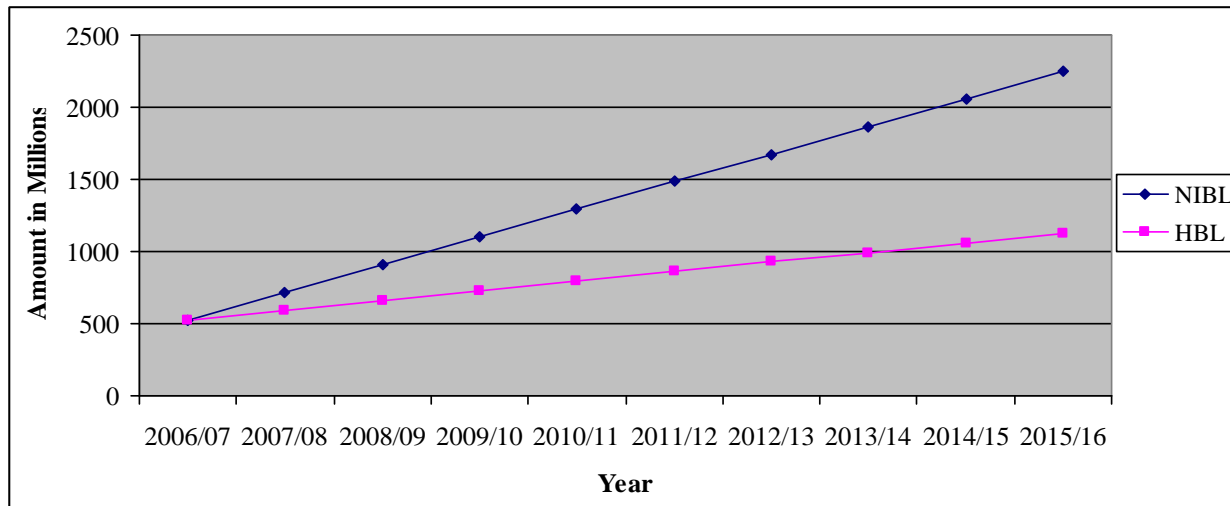
Trend Analysis of Net Profit Between NIBL and HBL		
Year(x)	NIBL	HBL
2006/07	524.434	521.39
2007/08	716.377	588.94
2008/09	908.32	656.49
2009/10	1100.26	724.04
2010/11	1292.21	791.59
2011/12	1484.15	859.14
2012/13	1676.09	926.69
2013/14	1868.04	994.24
2014/15	2059.98	1061.79
2015/16	2251.92	1129.34

Source: Trend value of Concern Bank

Appendix - 4

Figure No 4.24

Trend Line of Net Profit between NIBL and HBL



The above table and figure reveals the trend of Net profit of NIBL and HBL. Net profit of both banks NIBL and HBL forecasted in increasing trend. The trend of increasing value of net profit of NIBL is higher than HBL. The net profit of NIBL and HBL has been increasing every year by Rs. 191.943 million and Rs. 67.55 million respectively. The increment rate of net profit of NIBL is little higher than HBL. The trend of Net profit projected to FY 2015/16 i.e. further five year. In conclusion, NIBL is doing better in order to generate net profit during the projected study period although both NIBL and HBL have increasing trend.

4.3 Major Findings of the Study

From the above research, the researcher has enlisted the major findings in a summarized manner so that a complete picture of the data presentation and analysis can be presented following findings are drawn on the financial performance of the selected commercial banks.

1. Generally banks have to maintain standard current assets. The current ratio of NIBL and HBL has a fluctuating trend. The average current ratio of NIBL and HBL are 1.28 and 1.06. The liquidity position of NIBL is greater than HBL as it has a higher mean ratio. So, NIBL is sound in meeting short-term obligation than HBL. Both banks have moderate liquidity position because the ratio is more than 1:1 ratio.
2. The average cash and bank balance to total deposit ratio of NIBL and HBL are 13.534 and 7.334 percent. NIBL has higher ratio than the HBL, which shows its greater ability to pay depositors money. Liquidity position of NIBL is good.
3. The cash and bank balance to current assets ratio of NIBL and HBL are fluctuating. The mean ratio of NIBL is higher than HBL. The higher mean ratio shows that NIBL's liquidity position is better than that of HBL.
4. The investments on government securities to current assets ratio of NIBL and HBL have fluctuating. The mean ratio of NIBL is lower than HBL. It means HBL has invested more money in risk free assets than NIBL. For minimization of investment risk, NIBL should divert its investment in govt. securities.
5. The loan and advances to total deposit ratio of both bank NIBL and HBL has increasing form. NIBL has higher ratio than that of HBL. It indicates the better mobilization of deposit by NIBL as loan and advance. It reveals that the deposit of NIBL is quickly converted in to loan and advances to earn income.

6. The total investment to total deposit ratio NIBL and HBL both the banks have fluctuating decreasing form. Which indicate investment from deposit is decreasing. The mean ratio of the NIBL and HBL are 22.068% and 30.048% respectively, which shows that HBL has a higher ratio. It signifies that HBL has successfully allocated its deposit in investment portfolio.
7. The loan and advances to total assets ratio NIBL has constant and HBL has increasing. Average ratio of NIBL has higher ratio than HBL. It reveals that in total assets of NIBL has high proportion as loan and advances. NIBL has utilized its total assets more efficiently in the form of loan and advances. The lower C.V. of NIBL also states that it has more uniformity in ratios than HBL.
8. The investment on government treasury bills to total assets NIBL and HBL have fluctuating. The mean ratio of HBL has higher than NIBL. It means HBL has invested more assets in risk free assets than NIBL. In another words NIBL has emphasized more on lending and other short-term investment than investment in govt. securities.
9. The return on loan and advances ratio of NIBL and HBL has fluctuating form. This both banks show the normal earning capacity in loan and advances and same earning capacity in form of loan and advances. The average ratio of NIBL is little higher than HBL. Which indicate that return from loan and advance of NIBL is higher than HBL. NIBL has utilized the loan and advance for the profit generation in earning capacity.
10. The NIBL and HBL both banks have fluctuating trend of return on its total assets. However, NIBL seems successful in managing and utilizing the available assets in order to generate revenue since its average ROA is higher than that of HBL.
11. Return on equity ratio of NIBL and HBL have fluctuating. The average mean ratio of NIBL has little higher mean ratio than that of HBL. So NIBL is generating higher ROE in comparison with HBL. The shareholders of NIBL are getting higher return than HBL.
12. Both NIBL and HBL banks have increasing total interest earned to total asset ratio, which indicate both banks doing well in interest earning. The mean ratio of NIBL is little more than that of HBL. NIBL seems effective in interest earning ratio despite having lower asset and interest earning. However both banks performing best in this regards.
13. The interest earned to total outside assets ratio of both bank NIBL and HBL are in increasing during the study period. The mean ratio of NIBL has little higher than HBL.

Here NIBL seems to have more efficiency in generating total interest through well utilizations of outside assets. But it has relatively inconsistent returns.

14. Interest earned to operating income ratio of NIBL and HBL banks have increasing form. The NIBL has higher of total interest earn in its total operating income in most of the years and mean too. The higher ratio of NIBL indicates the high contribution in operating income made by lending and investing activities (core banking activity). But the ratio of NIBL is more inconsistency than HBL.
15. The NPL to total loan and advances of NIBL and HBL are in decreasing and increasing at last. Decreasing trend is the good sign of efficient credit management. The mean ratio of NIBL and HBL are 1.132% and 3.252%. These ratios indicate that ratio of HBL is higher. These ratios indicate more efficient operating of credit management of both banks according to NRB directives. However, NIBL is more efficient at operating credit management than HBL.
16. The liquidity risk ratio of the NIBL and HBL are in fluctuating. The average mean ratio of NIBL is greater than that of HBL. It signifies that NIBL has sound liquid fund to make immediate payment to the depositors.
17. The non-performing asset to total outside asset ratio of NIBL and HBL are decreasing at first and increasing at last. Decreasing trend is the good sign of efficient asset management. The average ratio of HBL is higher than NIBL. These ratios indicate that NIBL has more efficient in operating of asset management than HBL. In comparison, NIBL is more efficient in asset management than HBL.
18. The earning price per share of both NIBL and HBL has fluctuating form. HBL is better mobilizing it resources to get more earning per share (EPS). The average EPS of NIBL and HBL are 51.854 and 52.352. The EPS of HBL seems little higher than NIBL which indicate successful to generating higher EPS. Anyway both banks have performing well. HBL has more inconsistency in its EPS than NIBL.
19. Market price of the share of both bank NIBL and HBL has decreasing its share price from second fiscal year. This tends low performance and expectation from company. The highest MPS of NIBL is 2450 and lowest is 515 similarly highest MPS of HBL is 1980 and lowest is 575. Average mean price of HBL is little higher than that of NIBL. It indicates that shareholder of HBL are getting higher price.

20. The price earning ratio of NIBL and HBL are fluctuating decreasing. The mean ratio of the NIBL and HBL are 26.21 and 25.44 times. It indicates that for getting Rs 1 as earning, it should invest Rs 26.21 in NIBL and Rs 25.44 in HBL. The NIBL are getting better profitability because they are selling their shares in high price. But from the long term view and sustainable fair price, both banks are equal.
21. The coefficient of correlation between deposits and loan and advances of NIBL and HBL are 0.998 and 0.996. It is shows that both banks have positive relationship between these two variables. The relationship between deposits and lending of NIBL and HBL are significant.
22. The correlation between total deposit and total investment of NIBL is 0.812 and HBL has negative by 0.784. The correlation of NIBL has normal and HBL has negative. This indicates that deposit and investment of HBL has inverse relationship. The relationship between total deposit and total investment of NIBL is significant whereas insignificant relationship of HBL.
23. The correlation between loan & advance and net profit of NIBL and HBL are 0.951 and 0.623. It is positive correlation between these two variables. The NIBL has significant relationship and HBL has insignificant relationship between loan and advance and net profit.
24. The correlation between total deposit and net profit of NIBL and HBL are 0.948 and 0.630. Both banks have positive correlation but HBL has lower. The NIBL has significant relationship but HBL has insignificant relationship. Thus it can be concluded that the degree of relationship between total deposit and net profit of HBL is poor than the HBL.
25. The trend of total deposit of NIBL and HBL banks is in increasing trend. The rate of increment of total deposit for NIBL seems to be higher than that of HBL. The actual trend value of total deposit for NIBL is more than that of HBL. NIBL has higher position in collecting deposit than HBL. Similarly the trend of loan and advances between NIBL and HBL also increasing trend. The increasing trend of NIBL is higher and aggressive than HBL. It is clear that both NIBL and HBL is mobilizing its collected deposits and other funds in the form of loan and advances. The trend projected to further five year F/Y 2015/16.

26. The trend of total investment of NIBL have increasing trend where as HBL has decreasing trend OK has little increasing but HBL has high increasing trend. The forecasted trend projected that the NIBL has increasing and HBL has decreasing trend. Similarly the trend of Net profit of NIBL and HBL are increasing trend. The trend of increasing value of net profit of NIBL is higher than HBL. The net profit of NIBL and HBL has been increasing every year by Rs. 191.943 million and Rs. 67.55 million respectively. The increment rate of net profit of NIBL is higher than HBL. NIBL is doing better in order to generate net profit during the projected study period although both NIBL and HBL have increasing trend.

CHAPTER – V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This research has been carrying out to evaluate the comparative study on liquidity management of commercial banks. The research is about the comparative study on liquidity management of NIBL and HBL. In this chapter, summary conclusion and recommendation are included. All the summary and conclusion are made according to obtained data from analysis. Recommendation has made which would be beneficial for all concerned person, management of the bank and other stakeholder.

5.1 Summary

This research has been undertaken to evaluate the liquidity management of commercial banks. Here two banks have been selected as sample of the study and five year financial statements of respective banks have been used for the study. The study has been divided into five chapters which include introduction, review of literature, research methodology, data presentation and analysis and summary, conclusion and recommendation. The researcher has identified that research problem and set objectives to solve research problems about liquidity management of sample banks as described in introduction chapter. The main objective of the study is to analyze the liquidity management, position of liquidity, asset and profitability ratio, to analyze the deposit and investment position of the banks, to find out the relationship and between deposit, investment, loans and advances and net profit of NIBL and HBL offer suitable suggestions based on findings of this study. The research is based on secondary source of data. There also include focus of the study, statement of problem, significant and limitation and organization of the study. To make this study more effective, related literatures have been reviewed. This section includes conceptual review and review of related studies. In conceptual review includes concept and meaning and important of liquidity, theories and principle of liquidity, demand and supply of liquidity, factor and criteria of liquidity management of banks. In the review of related studies includes review of books, journal and articles as well as review of previous thesis.

Research methodology has been described in third chapter, which is a way to solve the research problems with the help of various tools and techniques. This chapter includes the various

financial as well as statistical tools to analyze the data in order to come to the decisions. This chapter includes the research design, population and sample data collection procedure, data analysis etc. These studies is mainly conducted on the basis of secondary data collected from annual reports of concern bank, official report, economic journal, financial statement etc. and authorize web site of Nepal stock exchange and security board of Nepal.

The presentation and analysis of data has been made comparative analytical and their interpretation has done in chapter four by applying the wide varieties of methodology as stated in chapter three. It includes the various financial and statistical tools. In case of financial tools there analyzed various component and profile of liquidity, liquidity ratio, assets management ratio as well as profitability and other ratios. Various statistical tools such as arithmetic mean, standard deviation, coefficient of correlation, trend analysis have been applied to fulfill the objective of this study. The major findings of the study are also included in the final section of the presentation and analysis chapter.

This research is concerned about the comparative analysis of liquidity. The term liquidity refers to the funds like deposit, cash and bank balance, borrowing, debt and equity whatever bank has retain for short term investment or use. Liquidity is the ability of bank to meet its obligations on time, especially in relation to repayment of inter-bank borrowings and customer deposits. Liquidity management is a very crucial job of commercial bank and the bank should maintain adequate amount of cash in its vault and NRB for its daily operation and administrative purpose. As per the arrangement of NRB effective from F/Y 2004/05, the commercial banks are required to maintain cash reserve ratio. Presentably commercial banks have to maintain CRR of 6% of its total deposit liability with NRB. So bank focus on maintain proper liquidity position and meet requirement of NRB directives as well. Along with this, a study of various important factors over the past several years is also undertaken to have clear understanding of liquidity management of commercial banks.

5.2 Conclusions

Thus this research is conducted with the major objective of highlighting liquidity management of two commercial banks. The observation and conclusion is derived by analyzing liquidity, asset

management position, profitability, risk and other ratio as we as relevant financial and statistical ratios of commercial banks other. This has helped to reach conclusion and provide workable solution for the liquidity management and profitability of selected banks.

For the analysis of liquidity position, the current ratio of NIBL and HBL are fluctuating form. The liquidity position of NIBL is little higher than HBL. The average cash and bank balance to total deposit ratio of NIBL has higher than the HBL. The cash and bank balance to current assets ratio of NIBL is higher than HBL. The investments on government securities to current assets ratio of NIBL and HBL have fluctuating. The HBL has invested more in govt. securities. The loan and advances to total deposit ratio of both bank NIBL and HBL has increasing form. NIBL has higher ratio which indicates the better mobilization of deposit. The total investment to total deposit ratio of HBL has a higher than NIBL. NIBL has utilized its total assets more efficiently in the form of loan and advances. The investment on government treasury bills to total assets NIBL and HBL have fluctuating. HBL has invested more assets in risk free assets than NIBL. The return from loan and advance of NIBL is higher than HBL. The NIBL and HBL both banks have fluctuating trend of return on its total assets. Return on equity ratio of NIBL has little higher mean ratio than that of HBL. So NIBL is generating higher ROE in comparison with HBL. Both NIBL and HBL banks have increasing total interest earned to total asset ratio, which indicate both banks doing well in interest earning. The interest earned to total outside assets ratio of both bank NIBL and HBL are in increasing. NIBL seems to have more efficiency in generating total interest through well utilizations of outside assets. Interest earned to operating income ratio of NIBL and HBL banks have increasing form. The NIBL has higher of total interest earn in its total operating income. The NPL to total loan and advances of NIBL and HBL are in decreasing and increasing at last. Decreasing trend is the good sign of efficient credit management. The liquidity risk ratio of the NIBL and HBL are in fluctuating. The NIBL has sound liquid fund to make immediate payment to the depositors. The non-performing asset to total outside asset ratio of NIBL and HBL are decreasing at first and increasing at last. Decreasing trend is the good sign of efficient asset management. NIBL is more efficient in asset management than HBL due to having low ratio. The earning price per share of both NIBL and HBL has fluctuating form. HBL is better mobilizing it resources to get more earning per share. Anyway both banks have performing well. HBL has more inconsistency in its EPS than NIBL. Market price of the share of

both bank NIBL and HBL has decreasing its share price from second fiscal year. This tends low performance and expectation from company. Higher ratio indicates that shareholder of HBL are getting higher price. The price earning ratio of NIBL and HBL are fluctuating decreasing. For getting Rs 1 as earning, it should invest Rs 26.21 in NIBL and Rs 25.44 in HBL. The NIBL are getting better profitability because they are selling their shares in high price.

The correlation between deposits and loan and advances of NIBL and HBL are 0.998 and 0.996. It is shows that both banks have positive relationship between these two variables. The relationship between deposits and lending of NIBL and HBL are significant. The correlation between total deposit and total investment of NIBL is positive and HBL has negative. This indicates that deposit and investment of HBL has inverse relationship. The relationship between total deposit and total investment of NIBL is significant whereas insignificant relationship of HBL. The correlation between loan & advance and net profit of NIBL and HBL are positive by 0.951 and 0.623. The NIBL has significant relationship and HBL has insignificant relationship. The correlation between total deposit and net profit of NIBL and HBL are positive but HBL has lower. The NIBL has significant relationship but HBL has insignificant relationship. The trend of total deposit of NIBL and HBL banks is in increasing trend. The rate of increment of total deposit for NIBL seems to be higher than that of HBL. NIBL has higher position in collecting deposit than HBL. Similarly the trend of loan and advances between NIBL and HBL also increasing trend. The increasing trend of NIBL is higher and aggressive than HBL. It is clear that both NIBL and HBL is mobilizing its collected deposits and other funds in the form of loan and advances. The trend of total investment of NIBL have increasing trend where as HBL has decreasing trend The forecasted trend projected that the NIBL has increasing and HBL has decreasing. The trend of Net profit of NIBL and HBL are increasing trend. The trend of increasing value of net profit of NIBL is higher than HBL. The net profit of NIBL and HBL has been increasing every year by Rs. 191.943 million and Rs. 67.55 million respectively. The increment rate of net profit of NIBL is higher than HBL although both NIBL and HBL have increasing trend.

5.3 Recommendation

Based on the analysis and finding of the study, the following recommendations can be made as suggestions to make the liquidity management of NIBL and HBL effective and efficient. This would help to draw some outline and make reforms in the respective banks

1. Generally, banks have to maintained liquid assets. The current ratio of the two banks NIBL and HBL is considerable. This can be regarded as good liquidity position. Because both bank have more than 1:1 ratio. This can be regarded as good liquidity position but both banks have lower than standard ratio. Comparatively HBL has lower than NIBL. Anyway it is recommended to maintain sound liquidity position to NIBL and HBL.
2. Considering the growth position of financial market, the lending policy management capabilities, strategic planning and fund flow situation, bank should maintain enough liquid assets to pay short-term obligations. So, it is recommended to maintain sound liquidity position to NIBL and HBL.
3. Government securities such as treasury bills, development bonds, saving certificates etc. are risk less investment alternatives as well as liquidity investment can be easily sold in the market. NIBL has found little lower. It's recommended to NIBL invests more funds in Government securities instead risky lending.
4. To get success in competitive banking environment, deposit must be utilized as loan and advances. It is found that loan and advances to total deposit ratio of HBL is lower than NIBL. So HBL is recommended to invest more deposit in loan and advances. According to NRB directives less than 80% of loan and advances to total deposit ratio is required to enable better mobilization of collected deposit. So both banks recommend to meet that requirement.
5. NIBL and HBL need to bring in newer schemes to mobilize their higher amount of deposits in extending credit.
6. The NPL of NIBL and HBL are in decreasing where as HBL is increasing at last. Decreasing trend is the good sign of efficient credit management. The ratios indicate that HBL has worse loan than NIBL. Both banks have under the credit risk according to NRB directives. However, both bank recommended reducing its nonperforming loan especially for HBL which has more ratio.

7. Cash reserve ratio (CRR) describes whether the commercial banks have met the liquidity requirement as prescribed by NRB. Presently commercial banks have to maintain 6% of their total deposit in NRB and own in hand.
8. EPS and DPS play a vital role to determine the market price of the share and also indicate the financial performance of banks. Higher EPS and DPS indicate the banks' sound financial position that would help them satisfy their stakeholders. So both bank recommended to increase in this regards.
9. Both the banks are recommended to formulate and implement the sound and effective investment policy to increase volume of total investment and loan and advances that helps to meet required level of profitability as well as social responsibility. The banks should consider rural areas in making investment policy.
10. Banks should develop an innovative approach to 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. Banks are also required to explore new market areas. For this purpose, it is recommended to form a strong market department in central level, which deals with the banking products, places, price and promotion.
11. In conclusion, NIBL has better performance than HBL. But both banks are doing well. So both banks should continue its growth trend to give strong competition to other banks. In the light of growing competition in the banking sector, both bank NIBL and HBL should be customer oriented. It should strengthen and activate its marketing function as it is an effective tool to attract and retain the purposive customers.

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Appendix - 1

A) Trend Analysis of Nepal Investment Bank Limited

Year(x)	Total Deposit(Y)	X = x-2008/09	X ²	XY
2006/07	24488.85	-2.00	4.00	-48977.70
2007/08	34452	-1.00	1.00	-34452.00
2008/09	46698	0.00	0.00	0.00
2009/10	46698	1.00	1.00	46698.00
2010/11	50094.73	2.00	4.00	100189.46
Tot n= 5	Y = 202431.58	X = 0	X ² =10	XY = 63457.76

Source: Annul Report of Nepal Investment Bank Limited

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

NIBL

$$a = 40486.32$$

$$b = 6345.78$$

Where as

$$Y_c = 40486.32 + 6345.78 * X \text{ of NIBL}$$

B) Trend Analysis of Himalayan Bank Limited

Year(x)	Total deposit(Y)	X = x-2008/09	X ²	XY
2006/07	30048.42	-2.00	4.00	-60096.84
2007/08	31842.79	-1.00	1.00	-31842.79
2008/09	34681.35	0.00	0.00	0.00
2009/10	37611.20	1.00	1.00	37611.20
2010/11	40920.63	2.00	4.00	81841.26
Tot n= 5	Y = 175104.39	X = 0	X ² = 10	XY = 27512.83

Source: Annul Report of Himalayan Bank Limited

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

HBL

$$a = 35020.88$$

$$b = 2751.28$$

Where as

$$Y_c = 35020.878 + 2751.28 * X \text{ of HBL}$$

Appendix - 2

A) Trend Analysis of Nepal Investment Bank Limited

Year(x)	Loan and advances (Y)	X = x-2008/09	X ²	XY
2006/07	17769.1	-2.00	4.00	-35538.20
2007/08	27529	-1.00	1.00	-27529.00
2008/09	36827.16	0.00	0.00	0.00
2009/10	40318.31	1.00	1.00	40318.31
2010/11	41095.51	2.00	4.00	82191.02
Tot n= 5	Y = 163539.08	X = 0	X ² = 10	XY = 59442.13

Source: Annul Report of Nepal Investment Bank Limited

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

NIBL

$$a = 32707.82$$

$$b = 5944.21$$

Where as

$$Y_c = 32707.82 + 5944.213 * X \text{ of NIBL}$$

B) Trend Analysis of Himalayan Bank Limited

Year(x)	Loan and advances (Y)	X = x - 2008/09	X ²	XY
2006/07	17793.724	-2.00	4.00	-35587.45
2007/08	20179.61	-1.00	1.00	-20179.61
2008/09	24793.15	0.00	0.00	0.00
2009/10	27980.63	1.00	1.00	27980.63
2010/11	31566.98	2.00	4.00	63133.96
Tot n= 5	Y = 122314.09	X = 0	X ² =10	XY = 35347.53

Source: Source: Annul Report of Himalayan Bank Limited

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

HBL

$$a = 24462.82$$

$$b = 3534.75$$

Where as

$$Y_c = 24462.82 + 3534.75 * X \text{ of HBL}$$

Appendix -3

A. Trend Analysis of Nepal Investment Bank Limited

Year(x)	Total Investment(Y)	X = x-2008/09	X ²	XY
2006/07	6505.7	-2.00	4.00	-13011.40
2007/08	6874.02	-1.00	1.00	-6874.02
2008/09	7399.81	0.00	0.00	0.00
2009/10	7399.81	1.00	1.00	7399.81
2010/11	8635.53	2.00	4.00	17271.06
Tot n= 5	Y= 36814.87	X=0	X ² =10	xy = 4785.45

Source: Annul Report of Nepal Investment Bank Limited

$$Y = a + bx$$

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

Here,

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

NIBIL

$$a = 7362.97$$

$$b = 478.55$$

Where as

$$Y_c = 7362.97 + 478.545 * X \text{ of NIBIL}$$

B) Trend Analysis of Himalayan Bank Limited

Year(x)	Total Investment(Y)	X = x-2008/09	X ²	XY
2006/07	11822.99	-2.00	4.00	-23645.98
2007/08	13340.18	-1.00	1.00	-13340.18
2008/09	8710.69	0.00	0.00	0.00
2009/10	8444.91	1.00	1.00	8444.91
2010/11	8769.94	2.00	4.00	17539.88
Tot n= 5	Y= 51088.71	X=0	X ² =10	xy = -11001.37

Source: Annul Report of Himalayan Bank Limited

$Y = a + bx$

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x \dots\dots\dots (I)$

Where x = X - Middle year

Here,

$a = \frac{\sum Y}{N}$

$b = \frac{\sum XY}{\sum X^2}$

HBL

$a = 10217.74$

$b = -1100.14$

Where as

$Y_c = 10217.74 - 1100.137 * X$ of HBL

Appendix - 4

A) Trend Analysis of Nepal Investment Bank Limited

Year(x)	Net Profit (Y)	X = x-2008/09	X ²	XY
2006/07	501.4	-2.00	4.00	-1002.80
2007/08	697	-1.00	1.00	-697.00
2008/09	900.62	0.00	0.00	0.00
2009/10	1265.95	1.00	1.00	1265.95
2010/11	1176.64	2.00	4.00	2353.28
Tot n= 5	Y = 4541.61	X = 0	X ² =10	XY = 1919.43

Source: Annul Report of Nepal Investment Bank Limited

Where,

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

NIBL

$$a = 908.32$$

$$b = 191.94$$

Where as

$$Y_c = 908.32 + 191.943 * X \text{ of NIBL}$$

B.) Trend Analysis of Himalayan Bank Limited

Year(x)	Net Profit (Y)	X = x-2008/09	X ²	XY
2006/07	491.824	-2.00	4.00	-983.65
2007/08	635.87	-1.00	1.00	-635.87
2008/09	752.83	0.00	0.00	0.00
2009/10	508.8	1.00	1.00	508.80
2010/11	893.12	2.00	4.00	1786.24
Tot n= 5	Y = 3282.44	X = 0	X ² =10	XY = 675.52

Source: Annul Report of Himalayan Bank Limited

Where,

Y= dependent variable

Y = dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

HBL

$$a = 656.49$$

$$b = 67.55$$

Where as

$$Y_c = 656.49 + 67.55 * X \text{ of HBL}$$