CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Financial institution in the economy plays a crucial role in the process of economic growth of the country. Financial institution refers to a business concern which is mainly confined to finance for the development of the trade, commerce and industry. Trade, commerce and industry are the prime factors of the economic development. Bank is a financial institution, which primarily deals in borrowing and lending. Banking is a vital part of national economy and a vehicle for the mobilizations of economy's financial resources and extension of credit to the business and service enterprises.

Liquidity denotes the money in use, in the liquid 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 Act 2031(1974) and the Financial Company Act 2042 (1985). But the definition about what "liquid assets" means is found in the acts.

"Liquidity is the status and part 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)*

Liquidity management on bank is also difficult as that of manufacturing and non-manufacturing business organization. Commercial banks are great monetary institutions which are playing important role to the general welfare of the economy. The responsibilities of commercial banks are more than any other financial institutions. They must be ready to pay on demand a good share of their liabilities without warning or notice. Bank collects funds from different types of deposits for providing loan and advances to different sector. To get higher return, banks must try to increase funds from deposits as well as their investment. The first motive of banking business is to borrow public saving and lend to needy people. But commercial banks always face the problem for utilizing more deposits as investment fully and productivity. The gap between collection of deposits and disbursement of loans increase the cash balance on bank which

require paying its large amount of liabilities on its depositors' demand without notice. But large amount of idle cash balance also decrease profitability of banks. Liquidity plays a crucial role in financial markets. The improvement and stability of market liquidity is important for market participants and serves as a way to enhance financial market credibility. In the absence of liquidity, financial markets cannot provide accurate price signals to investors and corporations, which are crucial for efficient risk sharing and accurate investment decisions. Without the availability of counteroffers, financial markets cease to exist, and they are replaced by individualized bilateral contracts. Thus, some liquidity is necessary for the very existence of a financial market. The high levels of liquidity expand the set of potential counteroffers and enhance the probability of a favorable match. Therefore, higher liquidity increases the expected level of satisfaction (utility) of market participants.

Nepal Bank Limited (NBL) established in 1937 was the first commercial bank in Nepal. Following the establishment of Nepal Rastra Bank (NRB), the central bank of the country in 1956 BS, was a major step towards the evolution and generalization of Nepalese financial system. The institutional network and volume of operations of the financial system has been expanded and diversified with a number of commercial banks which were five in 1990 BS and are 32 at the present. Similarly a number of other financial institutions came into operation rapidly.

In a global prospective, joint ventures are the mode of trading through partnership among nations and also a form of negotiations between various groups and services for sharing comparative advantages. A joint venture is the joining of forces between two or more enterprises for the purpose of carrying out a special operation (industrial or commercial investment, production or trade). These JVBs came into existence to accelerate the pace of economic development and financial system of the nation.

Standard Chartered Bank Limited, which was formerly known as Nepal Grindlays Bank, was established in 1987 A.D. as a second foreign joint venture bank under the company act. Its ownership is 75% of the shares held by Standard Chartered Grindlays Bank, 25% of shares by local ownership. Standard Chartered Bank completes 24 years of operation in 2011 AD. This was considered a unique opportunity to refresh the Brand. Standard

Chartered plays an active role in supporting those communities in which its customers and staffs live. The focus of the Standard Chartered group is on projects that assist needy children, particularly in the area of education and environment. The bank is in a position to service customers through a large domestic network. In addition to which the global network of Standard Chartered Bank gives the Bank the unique opportunity to provide truly international banking in Nepal. SCBNL focuses mainly on corporate and consumer banking, catering to a wide range of customers from individuals, to mid-market local corporate to multinationals and large public sector companies as well as embassies, aid agencies, airlines, hotels, and government corporations. The bank has been the pioneer in introducing consumer-focused product and services in the country.

Himalayan Bank Limited was incorporated in 1992 A.D. by distinguished business personalities of Nepal in partnership with employee provident fund and Habib Bank Limited, one of the largest commercial bank of Pakistan. Banking operation was commenced from January 1993 A.D. It is the first joint venture bank managed by Nepali chief executive. Besides, commercial activities, bank also offers industrial and merchant banking facilities.

Nepalese commercial banks are operating in the competitive environment. In this situation, banks have to adopt suitable strategies for their existence. They should balance and co-ordinate the different functional areas of business concern. The success or failure of any organization depends on its strategy, which is affected by working capital management. Working capital management is the crux of problem to prepare proper strategy on its favor.

1.2 Statement of the Problems

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 32 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.

“Commercial bank should ensure that cooperates on profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity. The problem then

becomes how to select or identify the optimum point or the level at which a commercial bank can maintain its assets in order to optimize these two objectives since each of the liquidity has a different effect on the level of profitability," Amihud, Y. (2002). This problem becomes more pronounced as good numbers of commercial banks are engrossed with profit maximization and as such they tend to neglect the importance of liquidity management. However, the profit maximization becomes a myth as the resulted liquidity can lead to both technical and legal insolvency with the consequence of low patronage, deposit flight, erosion of asset base.

Liquidity plays a crucial role in financial markets. The improvement and stability of market liquidity is important for market participants and serves as a way to enhance financial market credibility. In the absence of liquidity, financial markets cannot provide accurate price signals to investors and corporations, which are crucial for efficient risk sharing and accurate investment decisions. Without the availability of counteroffers, financial markets cease to exist, and they are replaced by individualized bilateral contracts. Thus, some liquidity is necessary for the very existence of a financial market. The high levels of liquidity expand the set of potential counteroffers and enhance the probability of a favorable match. Therefore, higher liquidity increases the expected level of satisfaction (utility) of market participants.

The present study, therefore, attempts to diagnose and analyze the liquidity management of each selected joint venture banks under study. The study also point out the areas where necessary and adequate actions could be taken to improve the present situation. The main trust of the study has been to make a detailed cause and effect study of liquidity management of the selected joint venture banks.

Specifically, this study deals with the following issues:

1. What is the liquidity position of the SCBNL and HBL?
2. What is the trend of liquidity position?
3. What is the profitability trend of the commercial banks?
4. What is the composition of working capital of commercial banks?
5. Is liquidity correlated with banking development?

1.3 Objectives of the Study

The main objective of this study is to examine the management of liquidity in Standard Chartered Bank Nepal Limited and Himalayan Bank Limited. The specific objectives of this study are as follows:

- To study the liquidity position of the SCBNL and HBL.
- To analyze the trend of liquidity position.
- To analyze the comparative study of liquidity management of SCBNL and HBL.
- To analyze their composition of working capital of commercial banks.
- To analyze the liquidity correlation with banking development.

1.4 Significance of the study

Nepalese commercial banks are operation in the competitive environment. In this situation, banks have to adopt suitable strategies for their existence. They should balance and co-ordinate the different functional areas of business concern. The success or failure of any organization depends on its strategy. Which is affected by working capital management. Working capital management is the crux of problem to prepare proper strategy on its favor. The study has multidimensional significance which can be divided into four broader headings.

a. Its significance to the shareholders: the study might be helpful to aware the shareholders regarding the working capital management, i.e. liquidity and profitability of their banks. The comparison will help them to identify the productivity of their funds of these two banks.

b. Its significance to the management: the study might be helpful to go deep into the matters as to why the working capital management of their banks is better (or worse) than their competitors.

c. Its significance to the outsiders: among outsiders, mainly the customers, financing agencies, stock exchanges and stock traders are interested in the performance of banks and the customers (both depositors and debtors) can identify to which bank they should go. The financial agencies can understand where there is more

secured stock exchange, stock brokers and stock traders who can find out the relative worth of the stocks of each bank.

d. Its significance to the policy makers: policy makers here refer to the government and Nepal Rastra Bank The study will be helpful to them while formulating the policy regarding commercials banks.

Therefore, considering all these facts, the study of working capital management of SCBNL and HBL is considerably important.

1.5 Test of Hypothesis

A hypothesis is a conjectural statement of the relation between two or more variables. Hypothesis is always in declarative sentence form and they relate either generally or specifically, variables to variables. There are two criteria for 'good' hypothesis and hypothesis statement. One hypothetical statement is about the relations between variables. Second hypothesis carries a clear implication for testing the stated relation. These criteria mean the hypothesis statement certain two or more variables that are measurable and they specify how are related.

As stated in chapter one, some conceptual frame work of null and alternative hypothesis between SCBNL and HBL in various variables are formulated and tested as follows:

For the study some set of null hypothesis have been formulated and tested.

(i) H_0: There is no significant difference in composition of working capital between SCBNL and HBL.

H_1: There is significant difference in composition of working capital between SCBNL and HBL.

(ii) H_0: There is no significant difference in liquidity position between SCBNL and HBL.

H_1: There is significant difference in liquidity position between SCBNL and HBL.

(iii) H_0: There is no significant difference in profitability position between SCBNL and HBL.

H_1: There is significant difference in profitability position between SCBNL and HBL.

To test the validity of our assumption, if sample size is less than 30, t-test is used. For applying t-test in the context of small sample, the t-value is calculated first and compared with the table value of t at a certain level of significance (say on 5%) for given degree of freedom. If calculated value of t exceeds the table value, we infer that the null hypothesis is rejected i.e., the difference is significance at 5% level of significance. But if it is less than the concerning table value of t, the null hypothesis is accepted i.e. the difference is not treated as significant.

1.6 Limitations of the Study

The scope of the present study has been limited in terms of period of study as well as sources and nature of data. The period covered by the study extends over 7 years from 2005/06 to 2011/12 A.D. At the time of study, the data could be available up to 2011/12 A.D. only. The limitations of this study are as follows: -

a) This study has been confined to only two of the joint venture banks, namely SCBNL and HBL. Due to time constraint, not all the related areas are possible to cover in depth.

b) The study is mainly based on secondary data. It is done mostly on the basis of the published financial documents, like balance sheet, profit and loss account and other related journals, magazine and books etc .Which is also derived from NSE website www.nepalstock.com, www.hbnl.com.np and www.scbnl.com.np.

c) Mainly statistical tools and financial tools are exploded for the need of the analysis of the liquidity management of Nepalese joint venture banks.

d) Due to time constraint, not all the related areas are possible to cover in depth. The report has taken only 7 years data for study from the year 2005/06 to 2011/12 A.D.

1.7 Organization of the Study

The first chapter includes general background of the study. It includes historical perspective of banking industry and overview of sample banks. This chapter also includes statements of the problem for the purpose of the study and objectives for which the total study has been conducted. Lastly, it also contains details about significance of the study and limitations of the study. In the second chapter different literature works have been reviewed. It studies different journals, articles, books, and thesis presented by earlier scholars. During review works different books of different writers are consulted to understand and define the concept of liquidity management. The articles and journals published in different newspapers, publications and individual articles are reviewed in order to know about the latest trends of liquidity management. Lastly, the thesis submitted by earlier graduates has been studied to know the earlier steps that have been completed in the research work. Similarly the third chapter expresses the way and the technique of the studying applied in the research process. It includes research design used in the research work. This chapter also defines population and sample of the study. The data collection procedure and processing, tools and methods of analysis are also discussed in this chapter. The fourth chapter is the important chapter in which collected and processed data are presented, analyzed and interpreted with using financial tools as well as statistical tools. This chapter vividly shows the data in different graphic presentation using bar diagram, pie-chart and line graph. Finally, the fifth and the last chapter provide the whole summary of the study in a gist. The conclusions of the research work are elaborated in this chapter together with the recommendations which are forwarded to the related companies to improve their liquidity management policies.

CHAPTER II

REVIEW OF LITERATURE

In the field of research review of literature is an essential part of the study. It is a way to discover what previous researches have done and what is still need to be done. It refers to the reviewing of the past studies in the concerned field, such studies could be thesis that are written earlier, books, articles, journals or any sort of publications concerning the subject matter. While conducting the research study, previous studies cannot be ignored, as those instructions would help to check up the chances of duplication in the present study. Thus one can find what research studies have been conducted and what remains to go with.

Beside we go through liquidity management, it is necessary to be clear about the financial institution, its regulatory body, directives to financial institutions and then all about liquidity management.

2.1 Conceptual Framework

Liquidity Management

"Liquidity means a matter of maintaining what the bank has promised to pay the depositors - cash. In order to fulfill the promise, primary reserves are the first drawn on to satisfy depositors. 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 or in process of collection by the banks. The objective of primary reserves in banking system is maintaining liquidity and solvency."*(Sinkey, 1983)*

“That liquidity plays a significant role in explaining the cross-sectional variation in stock returns. This effect persists after controlling for the well known determinants of stock returns like the firm-size, book-to-market ratio and the firm beta." *(Datar et al,1998)*

Liquidity denotes the money in use, in the liquid 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 Act 2031(1974) and the Financial Company Act 2042 (1985). But the definition about what "liquid assets" means is found in the acts.

Liquidity is the amount of capital that is available for investment and spending. Most of the capital is credit rather than cash. That's because the large financial institutions that do most investments prefer using borrowed money. Even consumers have traditionally preferred credit cards to debit cards, checks or cash.

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. 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.

(Nepal Rastra Bank Act, 2002)

"Liquidity is the status and part 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)*

"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."(*Reed, 2002)*

"Liquidity means allocation of funds in close relation to their respective source." *(Shrestha and Bhandari ;2004:256)*,

"Liquidity is obviously relevant for traders as it directly determines their cost of trading. Order handling costs, inventory and asymmetric information were shown to drive trading costs. Moreover, also market design is relevant. However, results are not always uniform. While transparency in general tends to benefit traders, certain types of traders may prefer less transparent markets, e.g. when they need to carry out a large transaction and do not want to reveal their trading intention. Similarly, lower tick sizes will lower spreads, but a too low tick size may actually harm traders as e.g. limit order traders may not receive appropriate compensation for the risks associated with a limit order. Liquidity also determines the return traders require to invest in a stock. The reasoning is that liquidity and liquidity risk are factors that are priced in the market,"(Adhikari,2011).

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.

Liquidity Management Model

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

a) Baumol Model (Bhattarai,2009)

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

Baumol Model is based on the assumption that:

- Cash is used at constant rate
- The periodic cash requirement is more or less save
- There are some cost such as the opportunity cost that increase and other cost such as transaction cost that decrease with cash balance

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

b) Miller Model (Bhattarai,2009)

Due to high opportunity cost, all liquidity need should not be maintained in cash that bears no returns. It is necessary to maintain cash balance for transition and compensation balance requirement but he liquidity need for the other purpose doesn't need to be in cash. Therefore any financial institution can take advantage by appropriately balancing the available funds between cash and loan investment. The size of cash needs depends on the pattern and degree of regulating of inflows and outflows. Hence Miller had developed model know as Miller Model, which takes into account the realistic pattern of cash flow and prescribes which and how much to transfer format to investment account vice versa.

This model is based on the assumption that daily net cash flows receipt minus payment is random in size as well as in the matter of negative or positive flow. Hence this model set range of high and low limits within which cash balance is allowed to Fluctuate and set the target cash balance between these two limits.

Importance of Liquidity

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 1983:225)*

"Our whole financial system runs on confidence and not much else when you get down to it. What we've learned is that when confidence erodes, it erodes very quickly." 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.

The importance of liquidity is briefly described in point wise as follows: *(Bhandari, 2004:146)*

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 important for the banks.

b) To pay all Sorts of Deposit

A bank opens the liquid, 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 5% Cash Reserve Ratio to accounts 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 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) To Provide 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.

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:

Commercial Loan Theory or Real Bills Doctrine

"This theory is evolved in early 1920s.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, transpiration, and distribution. When such goods are ultimately sold, the loans are considered to liquidate themselves automatically. 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". (*Sinkey; 1983.)*

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 shift ability 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". (*Sinkey, 1983)*

Asset Conversion or the Shift ability Theory (Western, 1992)

"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 shift ability theory of bank liquidity. According to this view, an asset to be perfectly shift able 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."

"But it has its weakness. First, mere shift ability of assets does not provide liquidity to the banking system. It entirely depends upon the economic circumstances. Second, the shift ability 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 shift able 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 soon both the lenders and borrowers". (*Bhandari;2004)*

The Liabilities Management Theory (Western, 1992)

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 form other commercial banks borrowing from the central bank, rising of capital funds by issuing shares, and by Ploughing back of profits. We discuss these sources of bank briefly:

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 ceiling 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. So the smaller banks are at a disadvantage in this respect."

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. In abnormal times, no bank can afford to lend to others."

iii) Borrowing from the Central Bank:

"Banks also create liabilities on themselves by borrowing form the central bank of the country. They borrow to meet their liquidity needs for short term and by discounting bills

form 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 form this sources."

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 its dividend policy. It is larger banks that can depend on this source rather than the smaller banks. (*Bhandari, 2004)*

The Demand and Supply of Bank Liquidity

"A bank need for liquidity-immediate spend able 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 spend able funds are needed are to be considered sincerely. For most banks, the most pressing demands for spend able funds come from two sources:

(1) Customers withdrawing money from their deposits, and
(2) Credit requests from customers the banks wishes 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" (See Table-2.1).(*Ross :2002)*

Table: 2.1

Sources of Demand and Supply for Liquidity within the Banks

Supplies of liquid Funds Come From	Demands for Bank liquidity arises from
Incoming customer deposits	Customer deposit withdrawals
Revenues from the sales of non-deposit services	Credit request from quality loan Customers
Customer loan repayments	Repayment of non-deposit borrowings
Sale of bank assets	Operating expenses and taxes incurred in producing and selling services
Borrowings from the money market	Payment of stockholder cash dividends

(Source: Ross 2002)

"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 form 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, as do sales of bank assets, 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" (See Table-2.2):

Table: 2.2

Net Liquidity Position Calculation Table

A. Supplies of Liquidity Flowing into the Bank:	**.....**
Income deposit (inflows)	.....
+ The sale of non-deposit services	.....
+ Revenues from the sale of non-deposit services	.....
+ Customer loan repayments	.....
+ Sales of bank assets	.....
+ Borrowings from the money market	.....
B. Demands 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)

"When the bank's total demand for liquidity exceeds its total supply of liquidity (i.e. Lt <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. Lt>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' liquid 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:

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 liquidity and profitability. The more bank resources are tied up in readiness to meet demands for liquidity, the lower is that banks' 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."

"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),*

"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."(Sharma,2010)

2.2 Review of Policies in Liquidity Management

2.2.1 Cash Reserve Ratio (CRR)

The provision of reserve directing 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. Now the CRR rate is 5% for the fiscal year 2067/068.

2.2.2 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 :(*Directive No.5/2061-62, 2(2). www.nrb.org.np)*

1. 0-90 day's maturity period assets and liabilities.
2. 91-180 day's maturity period assets and liabilities.
3. 181-270 day's maturity period assets and liabilities.
4. 271-365 day's 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 liquid deposit core deposit and compensating balance should be included in the more than one-year maturity period time interval.
b) Liquid 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.

2.2.3 Practice of Liquidity Management in Nepalese 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: (*Nepal Rastra Bank: 67/68)*

Total deposit means liquid, 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) Liquid and saving deposit means all deposit accounts other than fixed deposit.

c) Cash in vault shall include only the local liquid and foreign currency (except clearing cheque)

A complete procedure for compliance lest 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) Only 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 form 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.

2.3 Review of Journals and Articles

Pradhan **(**1994 AD), he carried out a survey of 78 enterprises. Through his research entitled, *"Financial Management Practices in Nepal"*. Some of the major features of the Nepalese financial management was "the most important one appeared to be maintaining good relation with stockholder. The finding reveals that banks and retained earnings are most widely used financing sources. Most enterprises do not borrow from one bank only and they do switch between banks to banks whichever offers best interest rates. Most enterprises find that banks are faxable in interest rate. Among the banks' loan, bank loan of less than one year are more popular in public sector where as banks loan of 1-5 years are more popular in private sector. In period of light money, the majority of private sector enterprises fell that bank will treat all firms equally while public sector does not feel so. Similarly, he concluded that the majority of enterprises in traded sector find that bank's interest rate is just right while the majority of non-traded sector find that the sum is one higher side".

Liquidity management of a bank basically deals with bank's two conflicting goals namely liquidity and profitability. Liquidity is the banks' ability to pay depositors on demand. In a broad sense, it is the banks' ability to convert its assets into cash without delay and

minimum loss. The main technique of liquidity management is to tradeoff between profitability and liquidity. Managers of bank can obtain the tradeoff following the method of cash planning managing cash flow, managing optimum cash level and investing idle funds in shift able assets.

A Bank must manage liquid assets efficiently as they are non- earning assets. Management of liquid assets minimizes the amount invested in cash assets without taking exercise risk. A bank's liquidity need and its ability to meet such needs are difficult to measure because perception and confidence of actual and potential depositors and money market are all important but very difficult to qualify liquidity need of a bank may be short-term, cyclical and contingent. There is also a statutory provision of maintaining reserves.

Acharya (2000 AD), "*NTC in Utilizing Liquid Assets*" has suggested utilizing NTC funds rather than accepting high interest bearing the loans for capital investment, since the rate of earning in liquid fund is less than the rate of interest it pays for loans. Mr. Acharya in another article has again suggested utilizing its internal resources. He writes it has become possible to maximize profit utilizing internal resources with minimum cost in other hand; liquidation position of the corporations is quite as it keeps capacity to pay off whole debt at once circumstances so required. Keeping in view, the increasing service, it can be expected that the further profitability trend will get improve further more in comparison to liquid trend provided the revenue structure from national and international service remain within a ascertain limit at unchanged tariff situation.

Kafle (2003 AD), "*Monetary and Financial Reports in Nepal*" states that consolidation and liberalization of interest rate measure is initiated with a view to provide more option to commercial banks in the mobilization of saving and portfolio management through market determined interest and lending rates.

Investors seeking higher return must be willing to face higher level of risk. Finance company being only a financial inter me diary, we will not be able to make any profit unless we mobilize funds suitably. It is from out of the interest, finance company earns on loan and advance, further he has to pay interest on deposit meet liquidity of cash balance. Meet establishment expenses keep some balance for reserve and pay dividend to

the shareholders. Investment in its broadest sense means the sacrifice of certain present value for future value

Acharya (2004 AD), "*Problems of Liquidity Management in Nepalese Organization*" there are two major problems– operational problems and organizational problems regarding the working capital management in Nepalese PE's have been described the operational problems, according to Dr. Acharya, listed in the first part, are increased of liquid liability then liquid assets, not allowing the liquid ratio 2:1 and slow turnover of inventory. Similarly, change in working capital in relation to fixed capital had very low impact over the profitability, and then transmutation of capital employed to sales, absence of management information system, break even analysis, funds flow analysis and ratio analysis were either undone or ineffective for performance evaluation. Finally the study points monitoring or the proper functioning of working capital management has never been considered a managerial jobs.

In the second part, Dr. Acharya has listed the organizational problems in the PE's .in most of the PE's there is a lock of regular internal and external audit system as well as evaluation of financial results. Similarly, while a very few PE's have been able to present their capital requirements, functioning of finance department is known satisfactory and some PE's are even facing the underutilization of capacity .to make and efficient use of funds for minimizing the risks of loss and to attend profit objectives, he has made some suggestions. For example, PE's should avoid the system of crisis decision which prevailed frequently in the operations, avoid fictitious holding of assets, the finance staff should be acquainted with the modern scientific tools used for the presentation and analysis the data .Dr. Acharya has also suggested optimizing level of investment at appoint in time. Neither over nor under investment in working capital desired by the management of an enterprises because of these situation will erode the efficiency of the concern.

Aanidhar, S. (2009), the preceding literature review demonstrates that market microstructure, in particular, the study of liquidity and order flows, is not a cocoon independent of other subfields of finance. Indeed liquidity has profound influences on asset prices, market efficiency, and the validity of no-arbitrage theorems, while order

flows are powerful predictors of returns in the cross-section as well as of the state of the macro economy. All of these are exciting findings, and should serve as powerful motivations to continue research in microstructure for many years to come.

Four specific hypotheses relating to commonality in liquidity on the Chinese stock markets examined by Sharma N. (2010) are: (a) that market-wide liquidity determines liquidity of individual stocks; (b) that liquidity varies with firm size; (c) that sector-based liquidity affects individual stock liquidities differently; and (d) that commonality in liquidity has an asymmetric effect. Based on a two-year dataset on the Shanghai and Shenzhen stock exchanges comprising of over 34 and 48 million transactions respectively, we find strong support for commonality in liquidity and a greater influence of industry-wide liquidity in explaining liquidity of individual stocks. Moreover, our results suggest that of the three main sectors – financial, industrial, and resources – industrial sector's liquidity is most important in explaining individual stock liquidities. Finally, we do not find any evidence of size effects, and document an asymmetric effect of market-wide liquidity on liquidity of individual stocks.

2.4 Review of Previous Thesis

Agrawal, (2002) "*A Study on Deposit and Investment position of Yeti Finance Company Limited*" has tried to examine the trend the deposit position and investment position of the Yeti Finance Company. That study was conducted on the basis of secondary data and used various financial tools to analyze the data. Study just covered only period of 5years (i.e. FY 1996/97 to 2000/2001).

The objectives were:

- To explore liquidity, fund mobilization and its effectiveness of Yeti Finance Company Limited
- To examine and analyze the growth ratio and its trend regarding deposits, investment, loan advances and net profit of finance companies under study and to study its impact on the national economy.
- To analyze various independent variables of each finance company that has significant effect on dependent variable net profit.

The researcher has found that the deposit policy is not stable but has highly fluctuating trend and investment is gradually in increasing trend. The researcher found there is highly positively correlation between total deposit and total investment. The researcher concluded that finance companies have been found profit oriented, ignoring the social responsibility, which is not a fair a strategy to sustain in long run.

Therefore, it is suggested the company should involve in social program which helps the deprive people who are depended helps in agriculture. Agriculture is the paramount of Nepalese economy so that any finance company should not forget to invest in this sector. In order to do so, they must open their branches in remote area with an objective of providing cheaper financing services.

The minimum amount to open accounts and interest rate on credit should be reduced which ultimately intensify the profit and goodwill of the company in future. But in his research there is not clearly mentioned the effect of interest in deposit collection as well as in investment.

Tandukar, (2003) "*Role of NRB in Deposit Mobilization of Commercial Bank*" has tried to examine role of NRB in deposit collection by the commercial banks and to analyze the trends of deposits mobilization towards total investment and loan and advances. Projection is for five years i.e. (1998 to 2002). The data used in that study is both secondary and primary nature. The researcher used different financial tools such as liquidity ratio, activity ratio, profitability ratio, risk ratio and coefficient of correlation, trend analysis as statistical tools. The researcher took 17 commercial banks as population and three banks i.e. Nepal Arab Bank Limited (NABIL), Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited (HBL) as sample banks.

objectives of the study were:

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

The research has found that it can be said that all new directives of NRB of commercial banks are effective and it is good for both nation and the future of the banks but the loan classification and provisioning seems to be little bit uncomfortable to the commercial banks. And deposit and loan and advances of NBBL are higher than EBL but in case of the investment EBL is able to mobilize more funds than NBBL in this sector.

In the study, only concentrate on two banks. The research output recommended to NBBL that diversification of loan and investment is highly suggested to the bank. As NBBL has given priority in investment in treasury bills, which is risk free, but it yields very low return to the bank and recommended to EBL to collect the deposit by initiating various new programs to attract the customer for this it can pay a higher interest rate than other banks recently providing.

Sapkota (2006), "*A Study on Fund Mobilizing Policy of Standard Chartered Bank Ltd in Comparison to Nepal Bangladesh Bank Ltd and Himalayan Bank Ltd* "having main objectives

- To examine the fund mobilizing policy adopted by three joint venture banks viz. SCBNL, NBBL and HBL and
- The way these banks mobilized their funds during five year study period i.e. from 1998/99 to 2004/2005.

The research found the overall condition of SCBNL seems in satisfactory position in comparison to NBBL and HBL. In other words, he recommends that banks are strongly recommended to provide information about its services, facilities and extension of their services towards rural areas. These three banks are recommended to increase cash and bank balance to meet the need of investment and demand of loan and advances. And banks are to be investing its funds in the purchase of shares and debentures of other financial, non-financial companies, hotels and government companies.

This output has not explained about the risk, which has to be faced by these joint venture banks. His study cannot show the fund mobilizing policy of the selected banks for the succeeding years because of time limitation i.e. up to 2003/2004.

Poudel (2007), "*A Study on Liquidity and Investment Position of Joint Venture Commercial Banks in Nepal*"**,** the study had based on the special reference to the Everest Bank Ltd and NABIL Bank ltd.

The major objectives were as under:

- To analyze the functions, objectives procedure and activities of the Everest Bank and NABIL Bank Ltd
- To analyze the lending practices and resources utilizations of sample banks.
- To determine the impact of growth in deposit on liquidity and lending practices.
- To examine the lending efficiency and its contribution to profit.
- To make suitable suggestions based on the findings of this study. The financial and statistical tools are used.

The major findings from the study were:

- There is no standard and uniform rate or ratio for maintaining liquid assets by the commercial banks. The manager may decide to maintain an appropriate level of liquid assets based on his own judgment.
- Liquidity Management decision should be made based on the relation to the source of funds and statutory obligation. Nature of a source of fund may vary with the other.
- Like there are demand deposit and time deposit bearing different natures. Demand deposit has nature of high turnover. Therefore it requires high level of liquid assets to support withdrawals.
- Since the 80-90 Percent of funds of commercial banks is deposit, the proportion of demand deposit to total deposit liability largely determined the level of liquid fund.
- The banks do not have constant and consistent liquidity and investment policy. Both the banks are adopting discretionary fund management approach. The banks are adhering to theory of shift ability while investing on marketable securities, especially on government securities. Anticipated income approach is also adopted in case of long-term loans.

- There are various active external factors affecting liquidity position of the banks, the deposit liability in the latest two year has increased substantially. Therefore, it is suggested to conduct a study to find the reason behind over increasing trend of deposit of the banks.

Limbu (2008), "*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 liquid 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 possess higher financial risk and vice-versa. It represents good condition of Total assets to net worth ratio. 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. The study shows the little high earning capacity of NABIL through loan and advances. Earnings per share and The Price earnings ratio of NABIL is in increasing trend. Loan loss provision to total loan and advances ratio and Non performing loan to total loan and advance ratio of NABIL is in decreasing trend. The ratio is continuously decreasing this indicates that bank increasing performance. 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.

Trend analysis tools are done for future forecasting. Trend analysis for total deposit is calculated to see future deposit trend of the bank. Trend analyses for loan & advance is done to see future loan & advances. Trend analysis for Total asset is calculated to see future total asset.

The study is conducted on credit management of Nabil Bank, which is one of the leading banks in Nepal. NABIL has been maintaining a steady growth rate over this period. In the study every aspect of banks seems to be better and steady in every year. It's all analysis indicates better future of concern bank.

There are various researchers conduct on lending practice, credit policy, financial performance, credit management and liquidity mobilization of various commercial banks. In order to perform those analysis researchers have used various ratio analysis. In the past research topic on liquidity mobilization the researcher has focused on the limit ratios which are incapable of solving the problems. Actually liquidity mobilization is determined by various factors. In this research various ratio are systematically analyzed and generalized. Past Researchers are not properly analyzed about investment aspect' mobilization of fund and its impact on the profitability. The ratios are not categorized according to nature. Here in this research all ratios are categorized according to their area and nature.

This research study made on "*Liquidity Management of Joint Venture Banks In Nepal*" will be an effort to analyze on detail about working capital management of the two banks as a comparative study in present situation with the help of various related financial as well as statistical tools and techniques. The study can be beneficial to all the concerned parties and people.

2.5 Research Gap

The objective of research work is quite different from the studies made by other. The researcher focuses in this study on effectiveness of liquidity management of Nepal Development Bank Ltd and Development Credit Bank Ltd. Financial tools and statistical tools are used in this study as ratios analysis, trend analysis, correlation coefficient and test of Hypothesis.

There are various research conducted on working capital management of commercial bank but no study has been yet conducted on the topic of liquidity management. Both bank are the major bank of the country having good market share and its liquidity and investment activities has significant impact on the national economy. Hence, this study will fulfill the prevailing research gap about in dept analysis of the liquidity management and also fruitful to these interested person, parties, scholars, professor, students, businessman and government for academically as well as policy perspective.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a sequential procedure and collection of scientific methods to be adopted in a systematic study. In other worlds, research methodology describes the methods and process applied in the entire aspect of the study. It is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his/her research problem along with the logic behind them. Thus, this chapter deals with research design, nature of data, data gathering procedure, population and samples, and data processing procedures.

3.2 Research Design

This study aims to portray accurately upon the liquidity (or liquid assets and liquid liabilities) and its impact on overall financial position of two banks under consideration, namely, Standard Chartered Bank Nepal Limited and Himalayan Bank Limited. The research methodology followed for this study is basically descriptive cum analytical research design. The variables related with the performance of the company, market information and relevant subjects are included in the study.

3.3 Population and Sample

Nowadays a number of commercial banks have been emerging rapidly. Some have already been established and others are in the process of establishment. In this study, all the commercial banks listed in NEPSE are population of study. There are 32 commercial banks listed in the NEPSE. Among them SCBNL and HBL have been selected as samples for the present study. So the percentage of sample from the population is 6.25 percent. For analysis purposes, financial statements only from preceding seven year period are used. As mentioned earlier, this study covers a period of seven years from B.S. 2005/06 to 2011/12. The analysis is done on the basis of the data for these seven years.

3.4 Nature and Sources of Data

The data used in this study are secondary. Published annual reports of the concerned banks are taken as basic source of data. The data relating to financial performance are directly obtained from the concerned banks. Similarly, related books, magazine, journals, articles, reports, bulletins, data from Nepal Stock Exchange and Nepal Rastra Bank, Central Bureau of statistics, related website from internal sources etc. as well as other supplementary data and various economic surveys are also used. Previous related studies to the subject are also counted as source of information.

3.5. Data Gathering Procedure

Since the data have been obtained from secondary sources, after collection of financial statement, master sheet of financial data have been extracted and tabulated as per the need of this study. In order to process the data, financial statement and other available information were reviewed. These data were grouped in different tables and charts according to their nature. Most of the data have been compiled in one form and processed and interpreted as required.

3.6 Tools of Data Analysis

Financial as well as the statistical tools are used to make the analysis more convenient, reliable and authentic. For data analysis, different items from the balance sheet and other statements are tabulated. Their ratios, percentages, mean, standard deviations, and coefficients of variations are then calculated and presented in the tables. To study the relationship between two or more variables, correlation coefficients are also calculated. In order to know about the sources and applications of the fund, funds flow statement is prepared. Likewise, trend analysis is also used to know the trend of various ratios. Following are the brief introductions of the financial and statistical tools used in this study.

3.6.1 Financial Tools

Financial tools are calculated to ascertain the financial condition of the firm. It is the relationship between financial variables contained in the financial statements. (i.e. balance sheet, profit and loss account and income statements). It helps the related parties to spot out the financial strength and weakness of the firm. There are several financial tools which can be applied in order to analyze the performance of commercial banks. The financial tools used in this study are as follows: - Liquidity Ratio, Activity Ratio, and Profitability Ratio. Similarly, net working capital and composition of working capital in terms of cash and bank balance percentage, loan and advances percentage government securities percentage and miscellaneous liquid assets percentage are also calculated.

1. **Liquidity Ratio:** This ratio measures the liquidity position and short term solvency of the firm indicating the company's ability to meet short term obligations. Liquidity ratio measures the firm's ability to meet liquid obligations. In fact analysis of liquidity needs for the preparation of cash budgets and cash and funds flow statement but liquidity ratios, by establishing a relationship between cash and other liquid assets to liquid obligations, provides quick measure of liquidity. A firm should ensure that it does not suffer from lack of liquidity and also that it does not have excess liquidity.

a) **Liquid Ratio:** The Liquid ratio is a measure of the firm's short-term solvency. It indicates the availability of liquid assets in rupees for every one rupee of current liability or 2:1 is normal standard of liquid ratio. A ratio of greater than one means, that the firm has more liquid assets than liquid liabilities.

$$\text{i.e. Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liability}}$$

Liquid assets include cash and other assets which can be converted into cash within one year i.e. debtors, inventories, account receivable, bills purchased, marketable securities, discount, advances and overdraft and prepaid expenses etc. The current liability is defined as liability which are short-term maturing obligation to be met within a year i.e. bills payable, banks credit, trade creditors, provision for taxation, dividends payable and outstanding expenses etc.

b) Quick Ratio: Quick ratio is used to measure the ability of concerned firms to pay liquid obligation (Short term) without depending on other liquid assets of liquid ratio. It provides relationship between quick assets with liquid liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are book debts and marketable securities. This quick ratio can be found out by dividing the total quick assets by total liabilities.

$$\text{Quick Ratio} = \frac{\text{Quick or Liquid Assets}}{\text{Current Liabilities}}$$

c) Cash and Bank Balance to Deposit Ratio (without fixed deposits): This ratio is used to measure whether bank and cash balance is sufficient to cover its liquid call margin including deposits (excluding fixed deposits). The ratio is calculated as:

$$\text{CBBDR} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposits (Except fixed deposits)}}$$

d) Fixed Deposit to Total Deposit Ratio: Fixed deposits are long term investment and high interest charge bearing deposit. Although a high cost liability, increasing fixed deposits is subject to an additional advantage if utilized properly. Sufficient fixed deposits enable banks to grant loan term loan to their clients at higher interest rate. This ratio is calculated in order to find out the proportion of total deposit that has higher interest charge bearing. The higher the ratio, the more the interest bearing deposits as well as better liquidity and lower proportion of liquid or short term deposits. It is computed by dividing the amount of fixed deposits by the total deposits amount.

This ratio is calculated as:

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

e) **Savings Deposit to Total Deposit Ratio:** Saving Deposit is an interest bearing short term deposit. The ratio is developed in order to find out the proportion of saving deposit, which is interest bearing and short term in nature. It is calculated by dividing

the total amount of savings deposits by the amount of total deposits which can be expressed as follows: -

$$\text{Savings Deposit to Total Deposit Ratio} = \frac{\text{Savings Deposits}}{\text{Total Deposits}}$$

2. Activity or Turnover Ratio

The funds of creditors and owners are invested in various assets to generate sales and profit. Activity ratios are used to evaluate the efficiency with which the firm manages and utilizes its assets. This ratio indicates how quickly certain assets are converted into cash. From this ratio it can be known whether or not the business activities are efficient. These ratios are also called turnover ratios because they indicate speed with which assets are converted or turnover into profit generating assets. These ratios, moreover, help in measuring the banks' ability to utilize their available resources. Following ratios are used under the activity ratios.

a) Loan and Advances to Total Deposit Ratio: The ratio assesses to what extent the bankers are able to utilize the depositor's fund to earn profit by providing loans and advances. In other words, how quickly total collected deposits are converted into loans and advances given to the client to earn income. It is computed by dividing the total amount of loan and advances to total deposit fund. Higher ratio indicates higher/proper utilization of funds and low ratio is the signal of inefficiency or remaining idle.

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

b) Loan and Advances to Fixed Deposit Ratio: This ratio differs slightly from the former one because it includes the fixed deposits only. The ratio measures how many much amount is used in loans and advances in comparison to fixed deposits. Fixed deposits are interest bearing long term obligations whereas loan and advances are the major sources of investment in generating income for commercial banks. It is calculated as follows: -

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

c) Loan and Advance to Saving Deposits Ratio: This ratio assesses, how many times the fund is used to loan and advances against saving deposit. This ratio is also employed for the purpose of measuring utilizations of savings deposits in generating revenue by giving loan and advances to the client i.e., to determine to what extent collected saving deposit amount is being deployed in providing loan and advances to generate income. Saving deposits are interest bearing obligation for short term purpose whereas loan and advances are the short term investment for revenue income. This ratio indicates how much short term interest bearing deposits are utilized for income generating purpose. The formula for this ratio is as follows: -

$$\text{Loans and Advances to Saving Deposit Ratio} = \frac{\text{Loans and Advances}}{\text{Total Saving Deposits}}$$

2. Profitability Ratio

Profit is the difference between revenues and expenses over a period of usually one year. Profit is the ultimate output of a company and it will have no future fails to make sufficient profit. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of profits. The profitability ratio is calculated to measure the operating efficiency of the company. Profitability ratio can be determined on the basic of either sales or investment. Major profitability ratios are as under:

a) Interest Earned to Total Assets Ratio: This ratio is used to determine total interest earned from investments over the total assets of a firm. It can be computed as follows:

$$\text{Interest Earned to Total Assets Ratio} = \frac{\text{Interest Eamed}}{\text{Total Assets}}$$

b) Net Profit to Total Assets Ratio: Profit to total assets ratio is useful in measuring the profitability of all financial resources invested compared to total assets of a firm. This ratio is calculated by dividing the amount of net profit by the amount of total assets employed.

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

c) Net Profit to Total Deposit Ratio: This ratio measures the percentage of profit earned from the utilization of the total deposits. Deposits are mobilized for investment, loan and

advances to the public in generating revenue. Higher ratio indicates the return from investment on loans and lower ratio indicates that the funds are not properly mobilized.

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

d) Cost of Services to Total Assets Ratio: A sound management always tries to utilize its large amount of assets with minimum cost. Cost of service to total assets is useful in measuring the utilization of assets with cost of services. The ratio can be expressed as:

$$\text{Cost of Services to Total Assets Ratio} = \frac{\text{Cost of Services}}{\text{Total Assets}}$$

4. Composition of Working Capital

To operate a business, different kinds of assets are needed. For the day-to-day business operation, different types of liquid assets are utilized. In case of SCBNL and HBL, the main components of liquid assets are cash and bank balance, loan and advances and government securities. Miscellaneous liquid assets are also a component of liquid assets. Prepaid expenses, outstanding income like interest receivable and other liquid assets are included in miscellaneous liquid assets.

In this study, composition percentages of following components: -

- Cash and Bank Balance percentage
- Loan and Advance percentage
- Government securities percentage
- Miscellaneous liquid assets percentage

5. Net Working Capital

Net working capital is the difference between liquid assets and liquid liabilities. Net working capital can be positive or negative. A positive net working capital will arise when liquid assets exceed liquid liabilities. A negative net working capital occurs when liquid liabilities are in excess of liquid assets.

3.6.2 Statistical Tools

Various financial tools mentioned above were used to analyze the liquidity management of SCBNL and HBL. Likewise, the relationship between different variables related to the study topics were also drawn out using statistical tools.

1 **Mean or average: -** The mean or average value is a single value within the range of the data that is used to represent all the values in the series. Since an average is somewhere within the range of the data, it is also called a measure of central value. Average value is determined by adding together all the terms and by dividing this total by the number of items. The formula is given below: -

$$\bar{x} = \frac{\sum x}{n}$$

2 **Standard Deviation:** The standard deviation is the measure that is most often used to describe variability in data distribution. It can be thought of as a rough measure of the average amount by which observations deviate on either side of the mean. Denoted by Greek letter σ(read or sigma), standard deviation is extremely useful for judging the representatives of the mean. Standard Deviation is represented by:

$$\text{Standard deviation } (\sigma) = \frac{\sqrt{\sum (x-x)^2}}{n-1}$$

Where,

X = Expected return of the historical data.

N = Number of observations.

3 **Coefficient of Variation:** The relative measure of dispersion is the co-efficient of variation, comparable across distribution, which is defined as the ratio of the standard deviation to the mean expressed in percent.

In symbol: -

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100$$

Where,

σ = Standard deviation

$\bar{X}$ = Mean value of variances

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

4 **Coefficient of Correlation**: Correlation is a statistical tool which is used to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1. When r, the coefficient of correlation is +1, there is perfect relationship between two variables and vice-versa. When r is 0, there is no relationship between two variables. The formula for the calculation of coefficient of correlation between X and Y is given below:

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum Y^2}}$$

Also, the test of significance of correlation coefficient has been done in this study. In order to test whether the correlation coefficient is significant to the correlation between the two variables, paired sample t-test has been applied at the standard significance level of 5%. If calculated value of t is greater or equal to its tabulated value, correlation is significant or else it is not significant.

5 Trend Analysis

Trend analysis is an analysis of financial ratio over time used to determine the improvement of determination of its financial situation. The trend line is represented by following equation.

Y_C = a + bx, where

Where,

Y_C = Estimated value of Y for given value of x in coordinate axes,

a = Y intercept of mean of Y value,

b = slope of the line or rate of change

x = variable in time axis

To find the values of a & b, we have to solve the following equations

$\sum Y = Na + b \sum X$ ……. (i)

$\sum XY = a\sum X + b \sum X^2$ …… (ii)

Where, N = Number of years

To make calculation easier, the deviation of the independent variable (i.e. time) are taken from the middle of the time period so that $\sum X = 0$, then the above two equation changes to simple fraction where we can determine the value of a and b.

CHAPTER - IV

PRESENTATION AND DATA ANALYSIS

4.1 Introduction

The major objective of this study is a comparative study of the liquidity of Standard Chartered Bank Nepal Limited and Himalayan Bank Limited. To achieve the objective set in this study, data are presented and analyzed in this chapter. On the whole, this chapter is related to quantity analysis of various ratios. Some quality-oriented analysis has also been done in order to make the result realistic and complete to the possible extent.

The major variables of the study are cash and bank balance, loan and advances, and investment of government securities. Relevant data and information of working capital as well as financial performance of SCBNL and HBL are presented, compared and analyzed accordingly.

Analysis is performed using various financial and statistical tools. In financial tools, it uses ratio analysis in which various related ratios have been compared and analyzed such as liquidity ratios, turnover ratios, profitability ratios and composition of working capital. In statistical tools, it uses trend analysis, correlation analysis and hypothesis test.

4.2 Composition of Liquid Assets and its Trend Analysis

To operate the business, different kinds of assets are needed. For day-to-day business operation, different types of liquid assets are required. The main components of liquid assets at SCBNL and HBL are cash and bank balance, loan and advances and investment on government securities. Miscellaneous liquid assets are also a component of liquid assets. Prepaid expenses, outstanding incomes, for example, interest receivable, and other liquid assets are included on miscellaneous liquid assets.

Table 4.1 and 4.2 show the amount of cash and bank balance, loan and advances, government securities and miscellaneous liquid assets of SCBNL and HBL respectively for the study period.

Table 4.1

Liquid Asset Components of SCBNL (Rs. in Million)

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Liquid Assets	Total Liquid Assets
2005/06	3170.21	5592.62	8342.56	5208.74	22314.13
2006/07	4241.76	5324.87	8634.12	4894.41	23095.16
2007/08	4370.59	5000.00	9123.15	4592.13	23085.87
2008/09	4520.15	13718.60	7157.73	3624.15	29020.63
2009/10	4812.25	13679.76	9050.99	4324.58	31867.58
2010/11	4247.77	15956.95	7878.57	4349.32	32432.61
2011/12	5129.71	18427.27	9309.11	4341.58	37207.67

(*Source: - Annual Report 2005-12*)

Table 4.2

Liquid Assets Components of HBL (Rs. in Million)

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Liquid Assets	Total Liquid Assets
2005/06	2014.47	13451.66	3245.11	751.42	19462.66
2006/07	1717.35	15761.97	3125.48	742.17	21346.97
2007/08	1757.34	17793.72	3100.64	512.23	23163.93
2008/09	1448.13	20016.05	4819.70	512.23	26796.11
2009/10	3048.52	25963.94	3903.34	610.56	33526.36
2010/11	3866.49	27980.63	3455.03	346.63	35648.78
2011/12	2964.65	31566.98	4725.58	376.75	39633.96

(*Source: - Annual Report 2005-12*)

From the above tables, total amount of liquid asset components of SCBNL is seen higher than that of HBL. Due to unequal volume of the components, percentage of components of liquid assets is required for comparative analysis.

The percentage composition of liquid assets to total liquid assets i.e. cash and bank balance, loan and advances, investment in government securities and miscellaneous liquid assets are as follows:

Table 4.3

Percentage Components of Liquid Assets of SCBNL

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Liquid Assets	Total Liquid Assets
2005/06	14.21	25.06	37.39	23.34	100
2006/07	18.37	23.06	37.38	21.19	100
2007/08	18.93	21.66	39.52	19.89	100
2008/09	15.57	47.27	24.66	12.49	100
2009/10	15.10	42.93	28.40	13.57	100
2010/11	13.10	49.20	24.29	13.41	100
2011/12	13.79	49.52	25.02	11.67	100
Average	15.58	36.96	30.95	16.51	
Std. Dev.	2.09	12.06	6.34	4.44	
C.V.	0.13	0.33	0.20	0.27	

(*Source: - ANNEX 4, 5, 6 and 7*)

The above table 4.3 describes the value of liquid assets which are divided into Cash and Bank Balance , Loan and Advances, Government Securities and Miscellenous Liquid Assets of SCBNL. The total of which comprises the Total Liquid Assets. All the parts are described in detail on each of their respective headings.

Graph 4.1

Percentage Composition of Liquid Assets of SCBNL

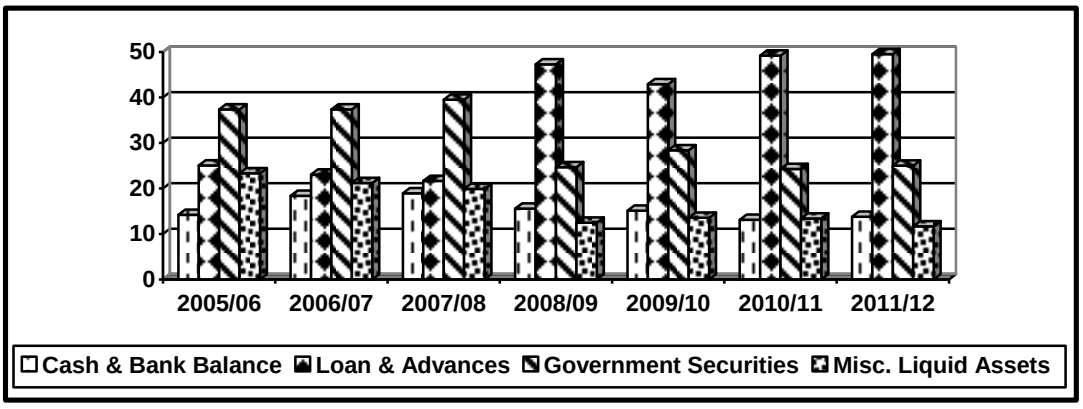


Table 4.4

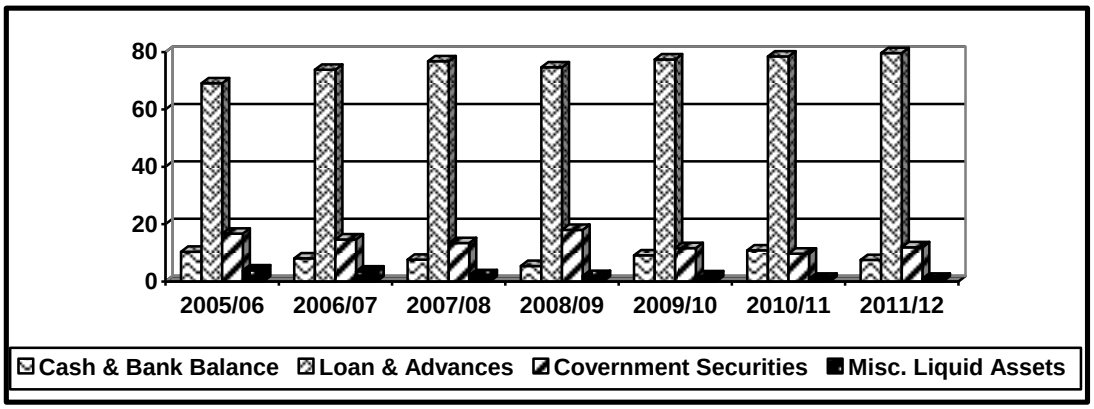
Percentage Components of Liquid Assets of HBL

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Liquid Assets	Total Liquid Assets
2005/06	10.35	69.11	16.67	3.86	100
2006/07	8.04	73.84	14.64	3.48	100
2007/08	7.59	76.82	13.38	2.21	100
2008/09	5.40	74.70	17.99	1.91	100
2009/10	9.09	77.44	11.64	1.82	100
2010/11	10.85	78.49	9.69	0.97	100
2011/12	7.48	79.65	11.92	0.95	100
Average	8.40	75.72	13.70	2.17	
S. Dev.	1.73	3.28	3.72	1.05	
C.V.	0.21	0.04	0.27	0.48	

(*Source: - ANNEX 4, 5, 6 and 7*)

Graph 4.2

Percentage Composition of Liquid Assets of HBL



4.2.1 Cash and Bank Balance Percentage

Cash and Bank balance percentage of SCBNL fluctuated over the study period. It is highest (18.93%) in the third year and lowest (13.10%) in the sixth year of the study period. The average cash and bank balance percentage of SCBNL is 15.58%.

Likewise, cash and bank balance percentage of HBL also fluctuated over the study period. It is highest (10.85%) in the sixth year and lowest (5.40%) in the fourth year of the study period. The average cash and bank balance percentage of HBL is 8.40%.

The study shows that average cash and bank balance percentage of SCBNL (15.58%) is higher than that of HBL (8.40%).

Similarly, standard deviation is 2.09% in SCBNL whereas it is 1.73% in HBL. Hence it shows SCBNL has higher risk factor than that of HBL. Likewise, coefficient of variation is 0.13 for SCBNL and 0.21 for HBL, indicating more variation in cash and bank balance maintaining in HBL compared to SCBNL.

From the calculation of cash and bank balance percentage trend as per ANNEX 1, the value of the constants a and b are as follows:

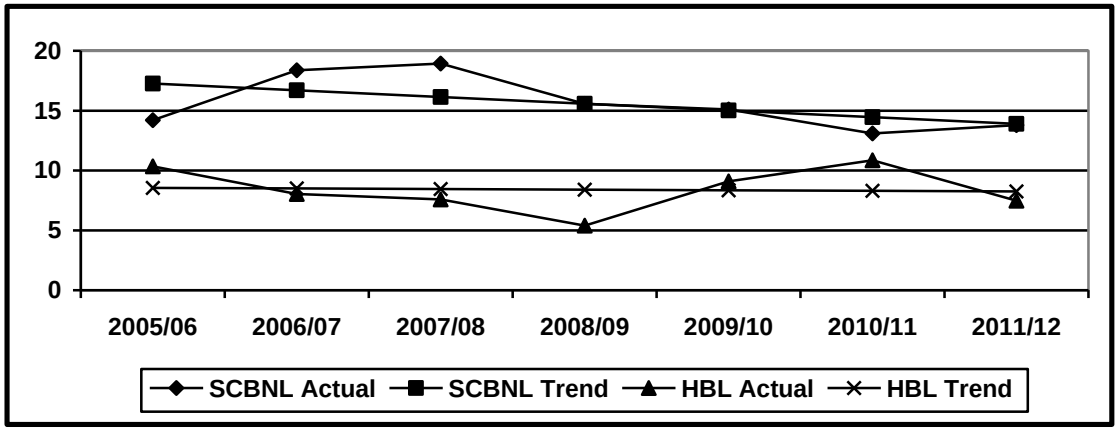
SCBNL	HBL
a = 15.58% or 0.1558	a = 8.40% or 0.0840
b = -0.56	b = -0.05

The rate of change of cash and bank balance percentage b in both the banks are negative.

It implies the decreasing cash and bank balance percentage to total liquid assets on both banks. The greater negative balance of HBL shows that fast decreasing in cash and bank balance percentage. Higher negative trend value of cash and bank percentage of HBL indicates the better utilization of cash on income generating sources.

Graph 4.3

Actual and Trend Lines of Cash & Bank Percentage



Graph 4.3 depicts that the trend line of SCBNL is always higher than HBL due to high cash and bank balance percentage. It helps to conclude that the average cash and bank balance percentage of SCBNL is higher than HBL and trend value of cash percentages indicates than SCBNL rapidly reduced its cash percentage on total liquid assets than HBL. The trend value also shows that SCBNL effectively utilized its cash balance to invest in income generating sector.

4.2.2 Loan and Advances Percentage

Loan and Advances percentage of SCBNL are found decreasing from the beginning of the year to the third year of the study period and increasing in good percentage onwards. It is highest in the year 2011/12 i.e., 49.52% and lowest in the year 2007/08 i.e., 21.66%. The average loan and advances percentage of SCBNL is 36.96%. The loan and advance percentages of SCBNL are higher than the average in years 2008/09, 2009/10, 2010/11 and 2011/12. But it is lower than the average in years, 2005/06, 2006/07 and 2007/08

In case of HBL, the loan and advance percentage of HBL are always increasing in the study period. It is increasing from the beginning of the year to the end of the year of the study period. The highest percentage of loan and advance of HBL is in the year 2011/12 i.e., 79.65% and lowest in year 2005/06 i.e., 69.11%. The average loan and advance percentage of HBL is 75.72%. The loan and advance percentages of HBL are lower than the average in year 2005/06. But it is higher than the average in years 2007/08, 2009/10, 2010/11 and 2011/12.

The standard deviation is 12.06% in SCBNL whereas it is 3.28% in HBL. Hence it shows SCBNL has higher risk factor than that of HBL. Likewise, coefficient of variation is 0.33 in SCBNL and 0.04 in HBL. Hence, more variation in loan and advance is maintained in SCBNL compared to HBL.

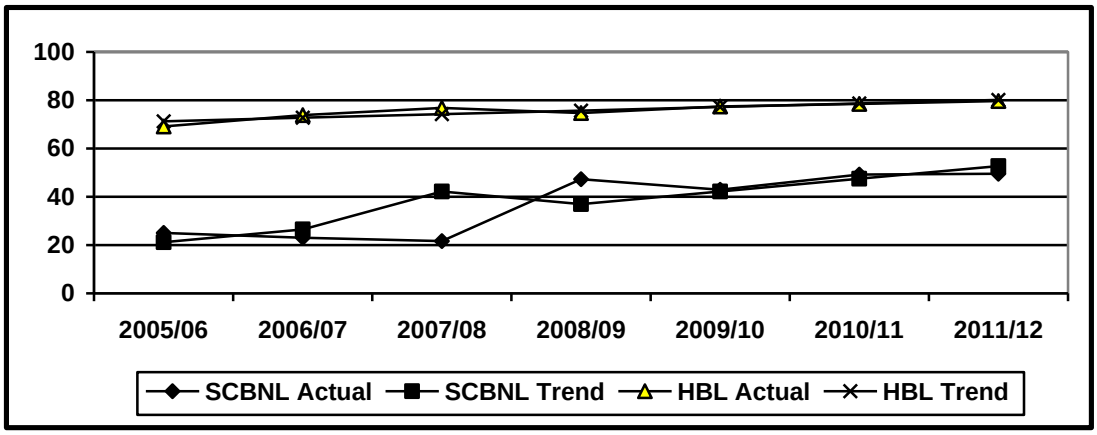
From calculation of loan and advance percentage trend as per ANNEX 2, the value of the constants a and b is as follows: -

SCBNL	HBL
a = 36.96% or 0.3696	a = 75.72% or 0.7572
b = 5.25	b = 1.48

The trend rates or the rate of change of loan and advances percentages b of both SCBNL and HBL are negative. It implies that the loan and advances of SCBNL and HBL are decreasing.

Graph 4.4

Actual and Trend Lines of Loan and Advances Percentage



Graph 4.4 shows that the trend line and actual line of loan and advances of HBL are always higher than SCBNL.

The above analysis helps to conclude that the loan and advances percentage of HBL are better than SCBNL. This loan and advances percentage of total liquid assets indicates that the greater portion of liquid assets of HBL is employed for the income generating purpose.

4.2.3 Government Securities

The Percentage of government securities is increasing of SCBNL in the initial years of study period. It is highest (39.52%) in the year 2007/08 and lowest (24.29%) in the year 2010/11. The average investment in government securities is 30.95%

Similarly, the percentage of government securities of HBL is fluctuated of the study period. It is highest (17.99%) in the fourth year 2008/09 and lowest (9.69%) in the final year 2010/11. The average government securities percentage of HBL is 13.70%. The average government securities percentage of SCBNL (30.95%) is higher than that of HBL (13.70%).

The standard deviation is 6.34% in SCBNL whereas it is 3.72% in HBL. Similarly, coefficient of variation is 0.20 in SCBNL and 0.27 in HBL. Hence, more variation in government securities is maintained in HBL compared to SCBNL.

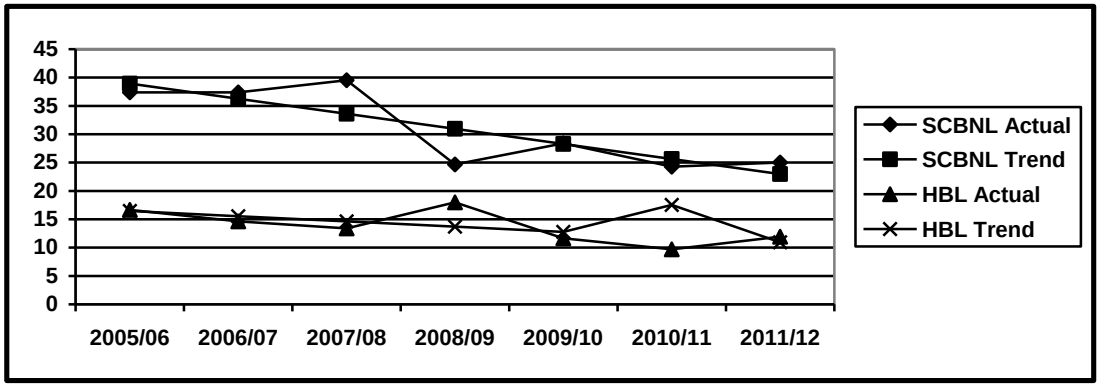
From the calculation of government securities percentage trend as per ANNEX 3, the value of the constants a and b are as follows:

SCBNL		HBL	
a =	30.95	a =	13.70
b =	-2.66	b =	-0.92

The trend rate or rate of change of government securities percentage b of SCBNL is negative which implies that the government securities is decreasing in SCBNL and HBL in total liquid assets.

Graph 4.5

Actual and Trend Lines of Government Securities Percentage



Graph 4.5 shows that the trend line and actual line of government securities percentage of SCBNL are always higher than that of HBL.

The above analysis helps to conclude that the government securities percentage on total liquid assets of SCBNL is better than HBL. It shows that SCBNL has prioritized to invest on government securities rather than loan and advances due to unavailability of secured investment sector.

4.2.4 Miscellaneous Liquid Assets Percentage

The percentage of miscellaneous liquid assets of SCBNL is decreasing every year except in the year 2009/10 of the study period. It is highest (23.34%) in the first year 2005/06

and lowest (11.67%) in the seventh year 2011/12. The average miscellaneous liquid assets percentage for SCBNL is 16.51%.

The percentage of miscellaneous liquid assets of HBL is decreasing every year except in the year 2007/08 of the study period. It is highest (3.86%) in the first year 2005/06 and lowest (0.95%) in the seventh year 2011/12. The average miscellaneous liquid assets percentage for HBL is 2.17%.

The standard deviation is 4.44% in SCBNL whereas it is 1.05% in HBL. Coefficient of variation is 0.27 in SCBNL and 0.48 in HBL. Hence, more variation in miscellaneous liquid assets is maintained in HBL compared to SCBNL.

4.3 Net Working Capital

Net Working Capital is the difference between liquid assets and current liabilities. Net working capital can be positive or negative. A positive net working capital will arise when liquid assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of liquid assets. All the organization should have just adequate working capital to serve in competitive market.

Excessive or inadequate liquidity is dangerous from the firm's point of view. Excessive investment working capital way inadequate or negative liquidity may be harmful to the organization. So, net working capital can be more useful for the analysis of trade-off between profitability and risk. It enables a firm to determine how much amount is left for operational requirement.

Table 4.5

Net Working Capital of SCBNL (Rs. in Million)

Fiscal Year	Liquid Assets	Current Liabilities	Net Working Capital	% Change in NWC
2005/06	22314.13	17620.78	4693.35	-
2006/07	23095.16	20657.71	2437.45	-0.93
2007/08	23085.87	21487.25	1598.62	-0.52
2008/09	29020.63	20985.87	8034.76	0.80
2009/10	31867.58	22478.35	9389.23	0.14
2010/11	32432.61	25542.16	6890.45	-0.36
2011/12	37207.67	26593.82	10613.85	0.35
Average	**6236.82**			
C.V.	**0.51**			

(*Source: - Annex 8*)

Table 4.6

Net Working Capital of HBL (Rs. in Million)

Fiscal Year	Liquid Assets	Current Liabilities	Net Working Capital	% Change in NWC
2005/06	19462.66	18694.56	768.10	-
2006/07	21346.97	18320.71	3026.26	0.75
2007/08	23163.93	17628.85	5535.08	0.45
2008/09	26796.11	18459.45	8336.66	0.34
2009/10	33526.36	21364.57	12161.79	0.31
2010/11	35648.78	24183.53	11465.25	-0.06
2011/12	39633.96	24856.88	14777.08	0.22
Average	**8010.03**			
C.V.	**0.59**			

(*Source: - Annex 8*)

Table 4.5 shows that the net working capital of SCBNL is decreasing fourth, fifth and seventh year. The average net working capital of SCBNL is Rs. 6236.82 million. The net working capital of SCBNL ranges from Rs. 1598.62 million to 10613.85 million.

In case of HBL, table 4.6 shows that the net working capital is in increases in the first to final year of the study period. The average net working capital of HBL is Rs. 8010.03 million. The net working capital in HBL ranges from 768.10 million to Rs. 12161.79 million. Both Bank has positive working capital in the first year of the study period which implies that there is sufficient amount required for operational requirement in that year.

4.4 Financial Analysis

Ratio analysis is a powerful financial tool to measure the financial performance of banks comparatively. As mentioned in research methodology, liquidity, turnover and profitability ratios are calculated. As a mathematical tool, the method of least square is used to analyze performance.

4.4.1 Liquidity Ratios: -

Liquidity of any business organization is directly related with the working capital or liquid assets and liquid liabilities of that organization. In other words, one of the main objectives of working capital management is keeping sound liquidity position. Bank is different organization which is engaged in mobilization of funds. Therefore, without sound liquidity position, bank is not able to operate its function.

To measure the bank's solvency position or ability to meet its short-term obligation, various liquidity ratios are calculated and to know the trend of liquidity, trend analysis of major liquidity ratios have been calculated.

4.4.1.1 Liquid Ratio

This ratio indicates the liquid short term solvency position of bank. Higher liquid ratio indicates better liquidity position. In other words, liquid ratio represents a margin of safety, i.e. a 'cushion' of protection for creditors and the highest the liquid ratio, greater the margin of safety, large the amount of liquid assets in relation to liquid liabilities, more the banks' ability to meet its liquid obligations.

The liquid ratio can be calculated as shown below: -

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

The following table shows the liquid ratio to compare the working capital management of SCBNL and HBL.

Table 4.7

Liquid Ratio (Rs. in Million)

Fiscal Year	**SCBNL**			**HBL**		
	Liquid Assets	**Liquid Liabilities**	**Ratio**	**Liquid Assets**	**Liquid Liabilities**	**Ratio**
2005/06	22314.13	17620.78	1.27	19462.66	18694.56	1.04
2006/07	23095.16	20657.71	1.12	21346.97	18320.71	1.15
2007/08	23085.87	21487.25	1.07	23163.93	17628.85	1.31
2008/09	29020.63	20985.87	1.38	26796.11	18459.45	1.45
2009/10	31867.58	22478.35	1.42	33526.36	21364.57	1.57
2010/11	32432.61	25542.16	1.27	35648.78	24183.53	1.47
2011/12	37207.67	26593.82	1.40	39633.96	24856.88	1.59
Average	1.27			1.37		
Std. Dev.	0.12			0.19		
C.V.	0.09			0.14		

(*Source: - Annex 9*)

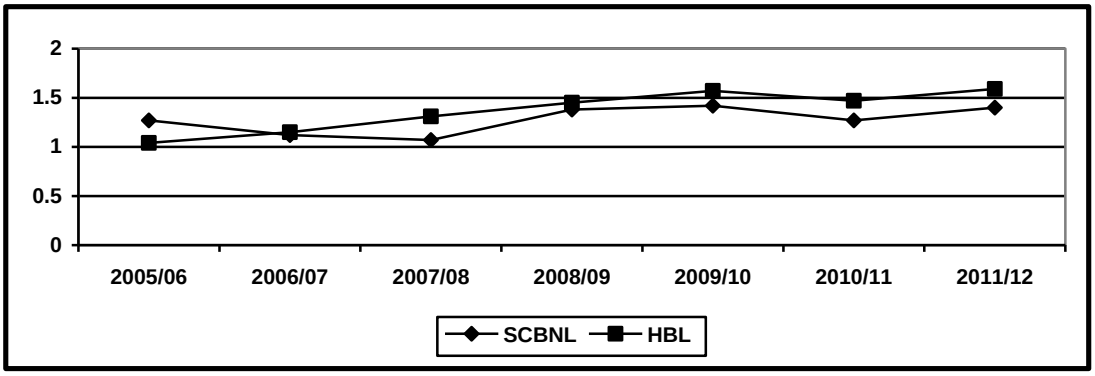
Table 4.7 depicts that the liquid assets and current liabilities of SCBNL are in fluctuating trend. It is decreasing from the first year till 2008/09 and increasing in the year 2009/10 and 2011/12. Similarly in case of HBL, the liquid assets and current liabilities are increasing for all times except third year. The liquid ratio of HBL is quite fluctuating and the liquid ratio of SCBNL is in decreasing trend. The highest liquid ratio of SCBNL is 1.42 the year 2009/10 and lowest is 1.07 in 2007/08. In HBL, the highest liquid ratio is 1.59 in the year 2011/12 and lowest is 1.04 in the first year of the study period. The

average liquid ratio of SCBNL is 1.27 and 1.37 of HBL. The yearly ratios of HBL are always higher than that of SCBNL except in the first year. Therefore, the average ratio of HBL is slightly higher than that of SCBNL.

The standard deviation is 0.068 in SCBNL whereas it is 0.12 in HBL. Similarly, coefficients of variation are 0.061 in SCBNL and 0.11 in HBL. Hence, it shows there is more variation in liquid ratio maintained by HBL compared to SCBNL

Graph 4.6

Trend of Liquid Ratios



Graph 4.6 depict that the liquid ratio of SCBNL and HBL. It is clear from the above graph that liquid ratios of SCBNL are higher than HBL in some years and HBL is higher in some years.

The above analysis helps to conclude that both banks are unable to maintain the standard liquid ratio of 2:1. Therefore, they have poor liquidity position according to norms however; they have sufficient liquid assets to discharge the liquid liabilities. Comparatively, the liquidity position of SCBNL is better than that of HBL. In other words, SCBNL has more ability to meets its liquid obligations than HBL.

4.4.1.1. Quick Ratio

Quick ratio establishes a relationship between quick assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of original value. Cash is a most quick asset. Other assets which are considered to be relatively liquid and included in quick assets are book debts and marketable securities.

For Quick Ratio, Cash and bank balance and government securities are included in quick assets. This ratio can be found out by dividing the total of quick assets by total liquid liabilities. The formula is given below: -

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

The following table shows the quick ratio of SCBNL and HBL.

Table 4.8

Quick Ratio (Rs. in Million)

Fiscal Year	**SCBNL**			**HBL**		
	Quick Assets	**Current Liabilities**	**Ratio**	**Quick Assets**	**Current Liabilities**	**Ratio**
2005/06	9893.04	17620.78	0.56	5978.08	18694.56	0.32
2006/07	12189.98	20657.71	0.59	5432.91	18320.71	0.30
2007/08	12713.15	21487.25	0.60	5259.58	17628.85	0.30
2008/09	13154.27	20985.87	0.61	4842.83	18459.45	0.26
2009/10	13935.4	22478.35	0.60	4857.98	21364.57	0.23
2010/11	11405.5	25542.16	0.45	6267.83	24183.53	0.26
2011/12	14180.7	26593.82	0.53	6951.86	24856.88	0.28
Average	0.56			0.28		
S. Dev.	0.059			0.031		
C.V.	0.105			0.11		

(*Source: - Annex 10*)

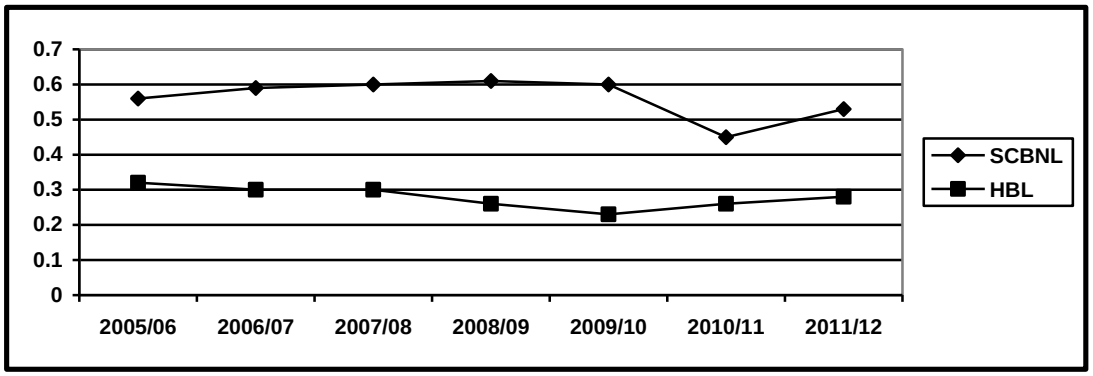
Table 4.8 shows that the quick ratios of SCBNL are in increasing trend except in the final years of the study period. The ratio is highest (0.61) in the year 2008/09 and lowest (0.45) in the year 2010/11. The average quick ratio of SCBNL is 0.56. The yearly quick ratios are lower than the average in the year 2010/11 and 2011/12 only. However, the ratio is higher in the second, third fourth and fifth year of the study period.

The quick ratios of HBL are fluctuating over the study period. It is highest (0.32) in the year 2005/06 and lowest (0.26) in the year 2008/09 and 2010/11. The average quick ratio of HBL is 0.28. In the first three years of the study period, the yearly quick ratios are higher than the average ratio. However, the ratios are lower than the average ratio in the last three years. The average quick ratio of SCBNL is higher than that of HBL.

The Standard deviation is 0.059 for SCBNL and 0.031 for HBL. Similarly, coefficient of variation of SCBNL is 0.09 and 0.11 in HBL. Thus, coefficient of variation of HBL is higher than that of SCBNL which shows that there is more variation in quick ratio of HBL compared to SCBNL.

Graph 4.7

Trend of Quick Ratios



Graph 4.7 shows that the quick ratio of SCBNL and HBL. It is clear from the above graph that the quick ratios of SCBNL are always higher than HBL.

The above analysis helps to conclude that the quick ratios of SCBNL are always better than HBL. It shows the better liquidity position of SCBNL in comparison to HBL.

4.4.1.3 Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposit)

This ratio is calculated as below:

$$\text{Balance to Deposit Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit (Excluding Fixed Deposit)}}$$

The following table shows the cash and bank balance to deposit ratio (excluding fixed deposit) of SCBNL and HBL.

Table 4.9

Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposits (Rs. in Million)

Fiscal Year	SCBNL			HBL		
	Cash and Bank Balance	Deposit	Ratio	Cash and Bank Balance	Deposit	Ratio
2005/06	3170.21	16807.04	0.19	2014.47	17820.00	0.11
2006/07	4241.76	19732.96	0.21	1717.35	17300.16	0.10
2007/08	4370.59	20015.47	0.22	1757.34	17568.58	0.10
2008/09	4520.15	21269.85	0.21	1448.13	18456.32	0.08
2009/10	4812.25	21956.36	0.22	3048.52	18678.87	0.16
2010/11	4247.77	26442.99	0.16	3866.49	25418.92	0.15
2011/12	5129.71	28770.02	0.18	2964.65	28304.22	0.10
Average	0.20			0.11		
S. Dev.	0.023			0.03		
C.V.	0.115			0.26		

(*Source: - Annex 11*)

Table 4.9 demonstrates that the ratios of SCBNL are fluctuating over the study period. It is highest (0.22) in the years 2007/08 and 2009/10 and lowest (0.18) in the year 2011/12. The average ratio of SCBNL is 0.20. The ratio is higher than the average in the second third, fourth and fifth year and in first and last two years it is below average.

In case of HBL, the ratios are fluctuating as well. It is increased in the second year then after it is in decreasing trend until last year. It is highest (0.16) in the year 2009/10 and lowest is 0.06 in the year 2008/09. The average ratio of HBL is 0.10. The ratios are higher than the average in the year 2009/10, 2010/11 whereas lowest in the year 2005/06, 2006/07, 2007/08, 2008/09, 2011/12 of the study period. The average ratio of SCBNL (0.2) is higher than that of HBL (0.1).

The standard deviation is 0.023 in SCBNL whereas it is 0.03 in HBL. Similarly, coefficient of variation of SCBNL is 0.115 and 0.26 in HBL. The coefficient of variation of HBL is higher than that of SCBNL. This explains that SCBNL is more preferable than HBL in

terms of cash and bank balance to deposit ratio (except fixed deposit). HBL has high risk or the variability of the ratio is lower in SCBNL than HBL.

From the above analysis, it can be concluded that from the average ratios shows that liquidity position of SCBNL is better than HBL because it has higher average ratio than that of HBL. According to C.V., the cash and bank balance position with respect to total deposit except fixed deposit, is better in the case of SCBNL than HBL.

4.4.1.4 Fixed Deposit to Total Deposit Ratio

This ratio is calculated as follows:

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

Table 4.10

Fixed Deposit to Total Deposit Ratio (Rs. in Million)

Fiscal Year	SCBNL			HBL		
	Fixed Deposits	Total Deposits	Ratio	Fixed Deposits	Total Deposits	Ratio
2005/06	1416.38	22486.52	0.06	6107.43	24814.01	0.25
2006/07	2136.30	23459.37	0.09	6350.20	26490.85	0.24
2007/08	3196.48	23648.79	0.13	8201.13	30048.41	0.27
2008/09	3301.01	29744.00	0.11	6423.78	31842.79	0.20
2009/10	7101.70	35871.72	0.20	6377.13	34681.34	0.18
2010/11	9175.07	35182.72	0.26	11328.64	37611.20	0.30
2011/12	10136.24	37999.24	0.27	13507.37	40920.63	0.33
Average	0.11			0.21		
S. Dev.	0.044			0.04		
C.V.	0.36			0.19		

(Source: - Annex 12)

Table 4.10 shows that the fixed deposit to total deposit ratios of SCBNL are fluctuated over the study period. It is highest (0.27) in the year 2011/12 and lowest (0.063) in the

year 2005/06. The average ratio of SCBNL is 0.11. The yearly ratios of the first three years are less than the average ratio. However, the rest of the three years are above or equal to average ratio.

In HBL, the yearly ratios are in the increasing trend in early years & last 2 years of study but started to decrease after year 2008/09. It is highest (0.33) in the year 2011/12 and lowest (0.18) in the year 2009/10. The average ratio of HBL is 0.21.

The standard deviation of SCBNL is 0.044 whereas it is 0.04 in HBL. The coefficient of variation of SCBNL is 0.36. Similarly, the coefficient of variation of HBL is 0.19. It shows that there is more variation in the composition in the fixed assets to total deposit ratio in SCBNL compared to HBL.

The above analysis helps to conclude that the fixed deposit to total deposit ratios of HBL are better than the SCBNL which indicates the better liquidity position in HBL than SCBNL. Fixed deposit, however, is higher cost long term source, which affected the profitability of bank adversely. The study shows SCBNL has high risk or the variability of ratio is higher in SCBNL than HBL.

4.4.1.5 Saving Deposit to Total Deposit Ratio

This ratio is calculated as below: -

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

The following table summarizes the saving deposits to total deposit ratio of SCBNL and HBL.

Table 4.11

Saving Deposits to Total Deposit Ratio (Rs. in Million)

F Year	SCBNL			HBL		
	Saving Deposit	Total Deposits	Ratio	Saving Deposit	Total Deposits	Ratio
2005/06	13030.93	22486.52	0.58	12852.41	24814.01	0.52
2006/07	14597.67	23459.37	0.62	14582.85	26490.85	0.55
2007/08	15244.38	23648.79	0.64	15784.76	30048.41	0.52
2008/09	17856.13	29744.00	0.60	17972.44	31842.79	0.56
2009/10	19187.64	35871.72	0.53	20061.05	34681.34	0.58
2010/11	12430.01	35182.72	0.35	16294.68	37611.20	0.43
2011/12	11619.81	37999.24	0.30	15994.56	40920.63	0.39
Average	0.52			0.51		
S. Dev.	0.13			0.07		
C.V.	0.25			0.13		

(Source: - Annex 13)

Table 4.11 shows that the saving deposits to total deposit ratios of SCBNL is fluctuating over the years of study. It is highest (0.64) in the year 2007/08 and lowest (0.30) in the year 2011/12. The average ratio of SCBNL is 0.52. The yearly ratios of the sixth and last year is lower average ratio. However, the yearly ratios are higher than the average ratio in the rest year's study.

In case of HBL, the saving deposits to total deposit ratios are in slight fluctuating trend of the study period. It is highest (0.58) in the year 2009/10 and lowest (0.39) in the years 2011/12 of the study period. The average ratio of HBL is 0.51. The yearly ratios are higher or equal to average ratio in all the year of the study period except in the year 2010/11 and 2011/12.

The average ratio of SCBNL (0.52) is higher than that of HBL (0.51). The standard deviation of SCBNL is 0.13. Similarly, the standard deviation of HBL is 0.07. The

coefficient of variation of SCBNL is 0.25. Likewise, the coefficient of variation of HBL is 0.13.

Savings deposit are short term liability, it is longer in term than liquid and other deposits. So the large portion of saving deposit in total deposits shows the liquidity of the bank. Bank also pays interest on saving deposit whereas, liquid, margin and other deposits are nominal cost funds. From the above table 4.11, savings deposit to total deposits ratio of SCBNL is better than HBL.

4.4.2.1 Loan and Advances to Total Deposit Ratio:

This ratio is calculated as below:

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

The following table shows the effectiveness in utilization of total deposits of SCBNL and HBL.

Table 4.12

Loan and Advances to Total Deposits Ratio (Rs. in Million)

F Year	SCBNL			HBL		
	Loan & Advances	Total Deposits	Ratio	Loan & Advances	Total Deposits	Ratio
2005/06	5592.62	22486.52	0.25	13451.66	24814.01	0.54
2006/07	5324.87	23459.37	0.23	15761.97	26490.85	0.59
2007/08	5000.00	23648.79	0.21	17793.72	30048.41	0.59
2008/09	13718.60	29744.00	0.46	20016.05	31842.79	0.62
2009/10	13679.76	35871.72	0.38	25963.94	34681.34	0.75
2010/11	15956.95	35182.72	0.45	27980.63	37611.20	0.74
2011/12	18427.27	37999.24	0.48	31566.98	40920.63	0.77
Average	0.35			0.66		
S. Dev.	0.11			0.09		
C.V.	0.31			0.14		

(Source: - Annex 14)

Table 4.12 demonstrates that the loan and advances to total deposit ratios of SCBNL is in decreasing trend during first three years of the study period but increases in the last 4 years. It is highest (0.48) in the year 2011/12 and lowest (0.21) in the year 2007/08. The average ratio of SCBNL is 0.35. The yearly ratios are lower than average ratio in all years of study except in last four years.

In case of HBL, the loan and advances to total deposit ratios are in increasing trend during the study period. It is highest (0.77) in the years 2011/12 and lowest (0.54) in the year 2005/06. The average ratio of HBL is 0.66. The average ratio of HBL (0.66) is higher than that of SCBNL (0.35).

The standard deviation of SCBNL is 0.11 whereas it is 0.09 in HBL. The coefficient of variation of SCBNL is 0.31 and it is 0.14 in HBL. Thus C.V. of HBL is lower than SCBNL. This shows that there is less variation in loan and advance to total deposit ratio maintained by HBL compared to SCBNL. In other words, HBL has low risk.

The above analysis helps to conclude that loan and advances to total deposit ratio or total deposit turnover ratio of SCBNL is better than HBL. It is the indication of better performance of SCBNL. Thus SCBNL is utilizing the funds more efficiently for the profit generating purpose on loan and advances than HBL. However, higher C.V. in SCBNL compared to HBL shows high risk in loan and advances to total deposit ratio of SCBNL.

4.4.2.2 Loan and Advances to Fixed Deposit Ratio

This ratio is calculated as below:

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

The following table shows the ratio of loan and advances to fixed deposits of SCBNL and HBL.

Table 4.13

Loan and Advances to Fixed Deposit (Rs. in Million)

F Year	SCBNL			HBL		
	Loan & Advances	Fixed Deposits	Ratio	Loan & Advances	Fixed Deposits	Ratio
2005/06	5592.62	1416.38	3.95	13451.66	6107.43	2.20
2006/07	5324.87	2136.30	2.49	15761.97	6350.20	2.48
2007/08	5000.00	3196.48	1.56	17793.72	8201.13	2.17
2008/09	13718.60	3301.01	4.15	20016.05	6423.78	3.11
2009/10	13679.76	7101.70	1.93	25963.94	6377.13	4.07
2010/11	15956.95	9175.07	1.74	27980.63	11328.64	2.47
2011/12	18427.27	10136.24	1.82	31566.98	13507.37	2.34
Average	2.52			2.69		
S. Dev.	1.01			0.63		
C.V.	0.40			0.23		

(Source: - Annex 15)

Table 4.13 shows that the loan and advance to fixed deposit ratios of SCBNL are fluctuating heavily during the years of study. It is highest (4.15) in the year 2008/09 and lowest (1.56) in the year 2007/08 of the study period. The average ratio of SCBNL is 2.52. The yearly ratios of SCBNL are lower than the average ratio in the first, fourth, fifth and seventh year. However, the yearly ratios are higher than the average ratio in the second third and sixth year.

In case of HBL, the yearly ratios are in decreasing trend except in the year 2008/09 & 2009/10 where it is increased in comparison to the previous year. It is highest (4.07) in the year 2009/10 and lowest (2.17) in the year 2007/08. The average ratio of HBL is 2.69. The yearly ratios of HBL are higher than the average in the first three year and last two years. However, the *yearly* ratios of HBL are lower than the average except in the year 2009/09 and 2009/10 year. The average ratio of SCBNL (2.52) is lower than that of HBL (2.69). The standard deviation of SCBNL is 1.01 whereas it is 0.63 in HBL. The coefficient of variation of SCBNL is 0.40 and it is 0.23 in HBL.

The above analysis helps to conclude that loan and advances to total deposit ratio of SCBNL is better than HBL. Because of lower amount of fixed deposit, the ratio became higher on SCBNL than HBL. The ratio implies that SCBNL is utilizing its fixed deposits in loan and advances more efficiently. Higher C.V. in SCBNL, compared to HBL, shows that the variability is more in loan and advance to fixed deposit ratio of SCBNL.

4.4.2.3 Loan and Advances to Saving Deposits Ratio

This ratio is calculated as below:

$$\text{Loans and Advances to Saving Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Saving Deposits}}$$

The following table shows the ratio of loan and advances to saving deposits of SCBNL and HBL.

Table 4.14

Loan and Advances to Saving Deposit Ratio (Rs. in Million)

F Year	SCBNL			HBL		
	Loan & Advances	Saving Deposits	Ratio	Loan & Advances	Saving Deposits	Ratio
2005/06	5592.62	13030.93	0.43	13451.66	12852.41	1.05
2006/07	5324.87	14597.67	0.36	15761.97	14582.85	1.08
2007/08	5000.00	15244.38	0.33	17793.72	15784.76	1.13
2008/09	13718.60	17856.13	0.77	20016.05	17972.44	1.11
2009/10	13679.76	19187.64	0.71	25963.94	20061.05	1.29
2010/11	15956.95	12430.01	1.28	27980.63	16294.68	1.72
2011/12	18427.27	11619.81	1.58	31566.98	15994.56	1.97
Average	0.78			1.34		
S. D.	0.45			0.34		
C.V.	0.58			0.25		

(Source: - Annex 16)

Table 4.14 shows that the loan and advances to saving deposit ratios of SCBNL are fluctuating over the study period. It is decreasing in all the times during the study period

until last four years have shown increasing trend. It is highest (1.58) in the year 2011/12 and lowest (0.33) in the year 2007/08. The average ratio of SCBNL is 0.78. The yearly ratios of SCBNL are lower than the average ratio in the last two years of the study period. However, the yearly ratios of SCBNL are higher than the average ratio in the first, second, third, fourth and fifth year.

In case of HBL, the loan and advances to saving deposit ratios of HBL are also fluctuating during the study period. It is decreasing in the fourth year of the study period but then we can see it is in increasing trend. It is highest (1.97) in the year 2011/12 and lowest (1.05) in the year 2005/06. The average ratio of HBL is 1.34. The yearly ratios of HBL are higher than the average in the years sixth and seventh. The average ratio of HBL (1.34) is higher than that of SCBNL (0.78).

The standard deviation of SCBNL is 0.45 whereas it is 0.34 in HBL. Similarly, the coefficient of variation of SCBNL is 0.58 and it is 0.25 in HBL.

From the above analysis, it can be concluded that the loan and advances to saving deposits ratio of HBL is better than that of SCBNL. It implies that HBL is utilizing short term fund of outsiders more effectively than SCBNL the risk is more in SCBNL than in HBL.

4.3 Profitability Ratio

Profitability Ratio is the measurement of efficiency. It provides the degree of success in achieving desired profit. Here, profitability is measured in terms of various ratios as follows:

4.3.1 Interest Earned to Total Assets Ratio

This ratio can be calculated as below:

$$\text{Interest Earned to Total Assets Ratio} = \frac{\text{Interest Eamed}}{\text{Total Assets}}$$

The following table shows the interest earned to total assets ratio of SCBNL and HBL.

Table 4.15

Interest Earned to Total Assets Ratio (Rs. in Million)

FY	SCBNL			HBL		
	Interest Earned	Total Assets	Ratio (%)	Interest Earned	Total Assets	Ratio (%)
2005/06	1058.67	21781.68	0.049	1446.46	28871.34	0.05
2006/07	1189.60	25776.33	0.046	1626.47	30579.80	0.053
2007/08	1411.98	28596.68	0.049	1775.58	34314.86	0.052
2008/09	1591.19	33335.79	0.048	1963.65	36175.53	0.054
2009/10	1887.22	40587.47	0.046	2342.20	39320.32	0.059
2010/11	2042.11	40213.32	0.051	3148.61	42717.12	0.074
2011/12	2718.70	43810.52	0.062	4326.14	46736.20	0.092
Average	0.05			0.062		
Std. Dev.	0.005			0.014		
C.V.	0.10			0.23		

(Source: - Annex 17)

Graph 4.8

Actual and Trend Lines of Interest Earned to Total Assets Ratio

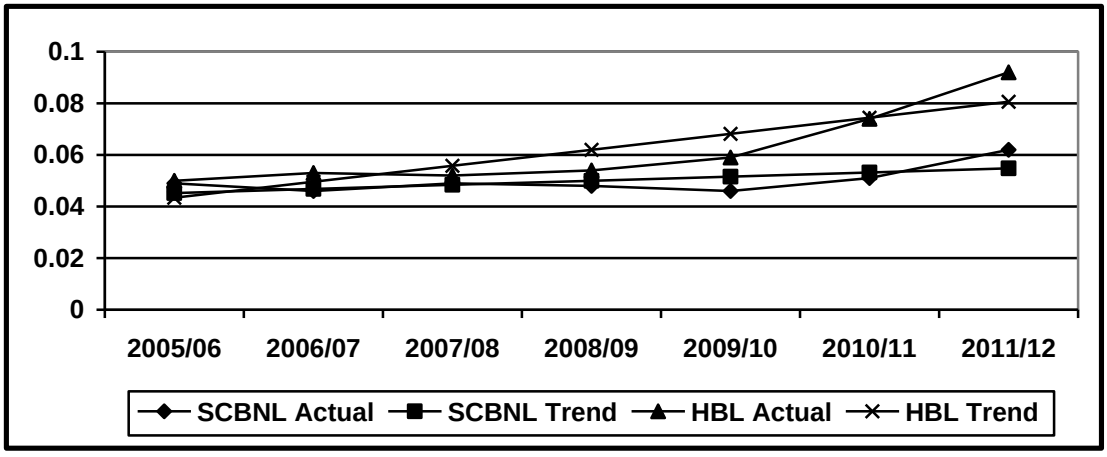


Table 4.15 shows that interest earned to total assets ratios of SCBNL are slightly fluctuating during the study period. It is in the increasing and decreasing trend. It is

highest (0.062) in the year 2011/12 and lowest of (0.046) in the year 2006/07 and 2009/10. The average ratio of SCBNL is 0.05. The yearly ratios of SCBNL are higher than the average ratio in the last 2 year whereas the yearly ratios are lower than the average ratio in the first to fifth year of the study period.

In case of HBL, the interest earned to total assets ratios of HBL are in increasing trend. It is highest (0.092) in the year 2011/12 and lowest (0.050) in the year 2005/06. The average ratio of HBL is 0.062. The average ratio of HBL (0.053) is higher than that of SCBNL (0.047).

The standard deviation of SCBNL is 0.005 whereas it is 0.014 in HBL. The coefficient of variation of SCBNL is 0.10 and it is 0.23 in HBL. Thus, C.V. of SCBNL is lower than HBL. This shows that there is less variation in interest earned to total assets ratio maintained by SCBNL compared to HBL. In other words SCBNL has lower risk in it.

As per ANNEX 21, the values of constants a and b are as follows: -

SCBNL	HBL
a = 0.050	a = 0.062
b = 0.0016	b = 0.0062

The rate of change in interest earned to total assets ratio of HBL bank is positive which implies the increasing trend of ratio but of SCBNL it is 0.

Graph 4.8 depicts that the trend and actual lines of HBL are always higher than SCBNL during the study period. So the above analysis helps to conclude that the interest earned to total assets ratio of HBL is better than SCBNL. This implies that HBL is efficiently using its total assets (funds) to earn interest income.

4.4.3.2 Net Profit to Total Assets Ratio

This ratio can be calculated as follows:

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

The following table shows the net profit to total assets ratio of SCBNL and HBL

Table 4.16

Net Profit to Total Assets Ratio (Rs. in Million)

Fiscal Year	SCBNL			HBL		
	Net Profit	**Total Assets**	**Ratio (%)**	**Net Profit**	**Total Assets**	**Ratio (%)**
2005/06	536.24	21781.68	0.025	308.27	28871.34	0.011
2006/07	658.76	25776.33	0.025	457.45	30579.80	0.015
2007/08	691.69	28596.68	0.024	491.82	34314.86	0.014
2008/09	818.92	33335.79	0.024	635.87	36175.53	0.017
2009/10	1025.11	40587.47	0.025	752.83	39320.32	0.019
2010/11	1085.87	40213.32	0.027	508.80	42717.12	0.012
2011/12	1119.17	43810.52	0.025	893.11	46736.20	0.019
Average	0.025			0.015		
Std. Dev.	0.007			0.003		
C.V.	0.28			0.20		

(Source: - Annex 18)

Table 4.16 shows that net profit to total assets ratios of SCBNL are mildly fluctuating during the study period. It is highest (0.27) in the year 2010/11 and lowest (0.024) in the year 2007/08. The average ratio of SCBNL is 0.025.

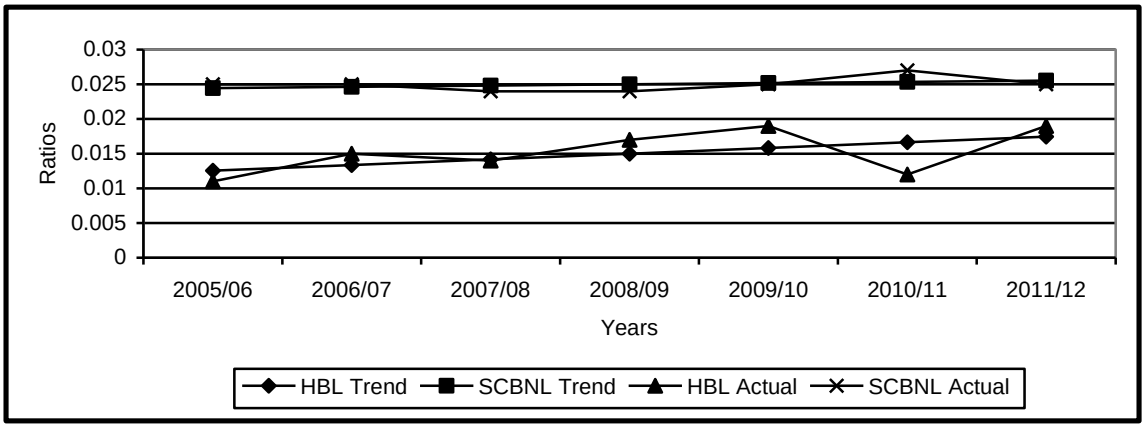
In HBL, the net profits to total assets ratios of HBL fluctuating during the study periods. The average ratio of HBL is 0.011. The yearly ratios of SCBNL are always higher than HBL. Therefore, the average ratio of SCBNL is higher than HBL.

As per ANNEX 22, the values of constants a and b are as follows: -

SCBNL	HBL
a = 0.025	a = 0.015
b = 0.0018	b = 0.00082

Graph 4.9

Actual and Trend Lines of Net Profit to Total Assets Ratio



Graph 4.9 depicts that actual and trend lines of SCBNL are always higher than HBL during the study period. The actual and trend lines of HBL are on the same path of the graph.

The analysis above helps to conclude that the overall profitability of SCBNL has been better than HBL. SCBNL is efficiently using its working fund of assets to earn higher rate of profit.

4.4.3.3 Net Profit to Total Deposit Ratio

This ratio can be calculated as follows:

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

The following table shows the net profit to total deposits ratio of SCBNL and HBL.

Table 4.17

Net Profit to Total Deposit Ratio (Rs. in Million)

Fiscal Year	SCBNL			HBL		
	Net Profit	Total Deposits	Ratio (%)	Net Profit	Total Deposits	Ratio (%)
2005/06	536.24	22486.52	0.024	308.27	24814.01	0.012
2006/07	658.76	23459.37	0.028	457.45	26490.85	0.017
2007/08	691.69	23648.79	0.029	491.82	30048.41	0.016
2008/09	818.92	29744.00	0.027	635.87	31842.79	0.02
2009/10	1025.11	35871.72	0.028	752.83	34681.34	0.022
2010/11	1085.87	35182.3	0.031	508.80	37611.20	0.014
2011/12	1119.17	37999.24	0.029	893.11	40920.63	0.022
Average	0.028					
S D	0.002					
C.V.	0.07					

(*Source: - Annex 19*)

Table 4.17 shows that the ratios of SCBNL. It ranges from 0.024 to 0.031. The average ratio of SCBNL is 0.028.

In HBL, the ratios are a little bit fluctuating during the study period. The highest ratio of HBL is 0.022 in the year 2011/12 and 0.012 in the first year of the study period. The average ratio of SCBNL is higher than that of HBL.

The coefficients of variation are 0.07 in SCBNL and 0.23 in HBL. Thus, C.V. of HBL is higher than that of SCBNL. This shows that there is more variation in net profit to total deposit ratio maintained by HBL compared to SCBNL. In other words, HBL has high risk in it.

The above analysis helps to conclude that the net profit to total deposit ratio of SCBNL is better than HBL. Mobilization of external funds is important to earn profit for a

commercial bank. Thus, SCBNL has better performance on mobilization of total deposits during that period.

4.4.3.4 Cost of Services to Total Assets Ratio

This ratio can be calculated as follows

$$\text{Cost of Services to Total Deposits Ratio} = \frac{\text{Cost of Services}}{\text{Total Assets}}$$

The following table shows the cost of services to total assets ratio of SCBNL and HBL.

Table 4.18

Cost of Services to Total Assets Ratio (Rs. in Million)

F Year	**SCBNL**			**HBL**		
	Cost of Services	**Total Assets**		**Cost of Services**	**Total Assets**	**Ratio (%)**
2005/6	383.46	21781.68	0.018	674.28	28871.34	0.023
2006/7	406.93	25776.33	0.016	644.05	30579.80	0.021
2007/8	412.58	28596.68	0.014	658.25	34314.86	0.019
2008/9	429.66	33335.79	0.013	672.98	36175.53	0.019
2009/10	478.93	40587.47	0.012	670.45	39320.32	0.017
2010/11	550.04	40213.32	0.014	669.25	42717.12	0.016
2011/12	588.52	43810.52	0.013	707.77	46736.20	0.015
Average	0.0143			0.0186		
S D.	0.002			0.003		
C.V.	0.14			0.16		

(Source: - Annex 20)

Table 4.18 shows that ratios of SCBNL it ranges from 0.12 to 0.018. The average ratio of SCBNL is 0.014%.

In HBL, ratios are slightly decreasing trend during the study period. The highest ratio of HBL is (0.023) in the year 2005/06 and lowest (0.015) in the last year 2011/12. The average ratio of HBL is of 0.019.

The S.D of SCBNL is 0.002 & 0.003 in HBL. The coefficients of variation are 0.14 in SCBNL and 0.16 in HBL. Thus, C.V. of HBL is higher than HBL. This shows that there is more variation in cost of services to total assets ratio maintained by HBL compared to SCBNL.

From the above analysis, we conclude that cost of services on HBL is higher than that of SCBNL during the study period. Due to higher service cost, profitability of HBL is not satisfactory. In other words, SCBNL is performing better in terms of cost of services to total deposit ratio.

4.5 Correlation Analysis

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

In order to test the correlation coefficient is significant of the correlation between the two variables; t-test has been applied at the standard significant level of 5%. If calculated value of t is greater or equal to its tabulated value, it is significant. The value is not significant otherwise.

4.5.1 Coefficient of Correlation between Loan and Advances and Total Deposits

The coefficient of correlation between loan and advances and total deposits is to measure the degree of relationship between major components of liquid assets, that is, loan and advances, and major sources of fund on bank, that is, total deposits. In correlation analysis, deposit is independent variable Y and loan and advances is dependent variable X. The purpose of computing coefficient of correlation is to justify whether or not the

deposits are significantly used in loan and advances and whether there is any relationship between these two variables. To find out the correlation r various calculations are done.

Table 4.19 shows the coefficient of correlation, r, between loan and advances, and total deposits, and test statistic value t of SCBNL and HBL during the study period.

Table 4.19

Correlation Coefficients and Calculated and Tabulated t Values

Bank	r	Calculated t	Tabulated t	Result
SCBNL	0.887	1.92	2.447	Insignificant
HBL	0.9656	3.7133	2.447	Significant

(Source: - Annex 23)

The table above indicates that the coefficient correlation between loan and advances and total deposits of SCBNL is 0.887 which indicates positive relationship between these two variables. By considering the test statistic, since the calculated value of t is less than its tabulated value, it can be inferred that the value of r is insignificant. In other words, there is an insignificant correlation between total deposits and loan and advances.

In case of HBL, we observe coefficient of correlation between total deposits and loan and advances is 0.9656 which shows the highly positive relationship between the two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 2.447, it can be concluded that the correlation between total deposit and loan and advance is highly significant in this case as well.

From the above analysis, it can be concluded that there is a highly significant relationship between loan and advance and total deposits in HBL bank only. Only HBL have utilized its total deposits on loan and advances effectively. But higher value of r in HBL shows better relationship as well as utilization of deposits on loan and advances than SCBNL.

4.5.2 Coefficient of Correlation between Investment on Government Securities and Total Deposit

The coefficient of correlation between investment on government security and total deposits is to measure the degree of relationship between two variables. Although bank utilizes its deposits on loan and advances, some part of idle deposits are invested on government securities. In correlation analysis, deposit is independent variable Y and a government security is dependent variable X. The purpose of computing coefficient of correlation in this case is to justify whether or not the excess deposits

are significantly used in government securities and whether there is any relationship between these two variables.

Table 4.20 shows the coefficient of correlation between government securities and total deposits during the study period.

Table 4.20

Correlation Coefficients and Calculated and Tabulated t Values

Bank	r	Calculated t	Tabulated t	Result
SCBNL	0.3786	0.4090	2.447	Insignificant
HBL	0.3163	0.333	2.447	Insignificant

(Source: - Annex 24)

The table above points out that the coefficient correlation between government securities and total deposits of SCBNL is 0.3786 implying positive relationship between these two variables. By considering the test statistics, since the calculated value of t is less than its tabulated value of 2.447, it can be inferred that the value of r is insignificant,

In case of HBL, it is observed that coefficient of correlation between total deposits and government securities is 0.3163 which indicating the positive relationship between the two variables. By considering the test statistics, since the calculated value of t is less than its tabulated value of 2.447, it can be inferred that the value of r is not insignificant.

From the above analysis, it is clear that there is an insignificant relationship between investment on government securities and total deposits in SCBNL and correlation is also more insignificant in case of SCBNL in comparison to HBL.

4.5.3 Coefficient of Correlation between Cash and Bank Balance and Liquid Liabilities

Cash and Bank balance are most liquid components of liquid assets. They are required to meet the unexpected short term obligation or liquid liabilities. The coefficient of correlation between cash and bank balance and liquid liabilities is to measure the degree or relationship between cash and bank balance and liquid liabilities. To find out the correlation, various calculations are performed.

Table 4.21 shows the coefficient of correlation between cash and bank balance and liquid liabilities, and calculated and tabulated values of t of SCBNL and HBL during the study period.

Table 4.21

Correlation Coefficients and Calculated and Tabulated t Values

Bank	r	Calculated t	Tabulated t	Result
SCBNL	0.7610	1.173	2.447	Insignificant
HBL	0.318	0.354	2.447	Insignificant

(Source: - Annex 25)

From the above table, it can be inferred that the coefficient of correlation between cash and bank balance and liquid liabilities in SCBNL is 0.7610 which shows highly positive relationship between these two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 2.447, we can say that the value of r is insignificant. In other words, there is insignificant relationship between cash and bank balance and liquid liabilities.

In case of HBL, it can be seen that coefficient of correlation between cash and bank balance and liquid liabilities is low. The value of r in this case is 3.18, which shows

highly positive relationship between two variables. By considering the test statistics, since the calculated value of t is less than its tabulated value of 2.447, we can further conclude that the relationship between cash and bank balance and liquid liabilities is not insignificant. From the above analysis, it can be concluded that there is insignificant relationship between cash and bank balance and liquid liabilities only in SCBNL bank not in HBL bank.

4.5.4. Coefficient of Correlation between Loan and Advances and Net Profit

The basic function of a commercial bank is to collect deposit and invest these funds on loan and advance to generate higher profit. Large amount of loan and advances generate higher profit. The coefficient of correlation between loan and advances and net profit measures the degree of relationship between loan and advances, and net profit. In correlation analysis, loan and advances is independent variable Y and net profit is dependent variable X. The purpose of computing coefficient of correlation is to justify whether or not the loan and advances significantly generate profit and whether there is any relationship between these two variables.

Table 4.22 shows the coefficient of correlation between loan and advances and net profit, and calculated and tabulated t value of SCBNL and HBL during the study period.

Table 4.22

Correlation Coefficients and Calculated and Tabulated t Values

Bank	r	Calculated t	Tabulated t	Result
SCBNL	0.93	5.66	2.447	significant
HBL	0.82	3.20	2.447	Significant

(Source: - Annex 26)

From the table above, it is found that the coefficient correlation between loan and advances and net profit of SCBNL is 0.93 which shows negative relationship between these two variables. By considering the test statistics, since the calculated value of t is high than its tabulated value of 2.447, we can consider the value of r is significant. In other words, there is significant relationship between loan and advances and net profit.

In case of HBL, it is observed that coefficient of correlation between loan and advances and net profit is 0.978 which shows highly positive relationship between these two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 2.447, we can say that the value of r is significant. In other words, there is significant relationship between loan and advances and net profit.

From the above analysis, it can be concluded that the SCBNL and HBL bank has significant relationship between loan and advances and net profit.

4.6 Test of Hypothesis

As stated in chapter there in research methodology, some conceptual framework of null and alternative hypothesis between SCBNL and HBL in various variables are formulated and tested as follows:

For the study, following set of null hypothesis have been formulated and tested.

a. H_0: There is no significant difference in composition of working capital between SCBNL and HBL.

   H_1: There is significant difference in composition of working capital between SCBNL and HBL.

b. H_0: There is no significant difference in liquidity position between SCBNL and HBL.

   H_1: There is significant difference in liquidity position between SCBNL and HBL.

c. H_0: There is no significant difference in profitability position between SCBNL and HBL.

   H_1: There is significant difference in profitability position between SCBNL and HBL.

To test the validity of our assumption, if sample size is less than 30, t-test is used. In order to apply t-test in the context of small sample, the t-value is calculated first and compared with the table value of t at a certain level of significance (say on 5%) for given degree of freedom. If calculated value of t exceeds the table value, we infer that the null hypothesis is rejected, that is, the difference is significant at 5% level of significance. If t

is less than corresponding table value of t, the null hypothesis is accepted. In order words, the difference is not treated as significant.

4.6.1. Composition of Working Capital

To judge whether there is significant difference in composition of working capital between SCBNL and HBL, following null hypothesis and alternative hypothesis are formulated and tested.

a. Null Hypothesis:

H_0: There is no significant difference in composition of working capital between SCBNL and HBL.

b. Alternative Hypothesis:

H_1: There is significant difference in composition of working capital between SCBNL and HBL.

The following table exhibits the mean value of various percentages measuring the composition or structure of working capital of SCBNL and HBL and student t value.

Table4.23

Mean t-value of composition of Working Capital

S.N.	Composition	SCBNL Mean	HBL Mean	Calculated t Value	Tabulated t Value	Result/ Decision
1.	Cash & Bank Balance	17.69	8.93	6.49	2.179	H_0 is rejected
2.	Loan and Advances	30.53	71.95	7.59	2.179	H_0 is rejected
3.	Government Securities	33.32	16.51	6.12	2.179	H_0 is rejected
4.	Misc. Liquid Assets	18.45	2.62	7.70	2.179	H_0 is rejected

(Source: - Annex 27, 28, 29 & 30)

From the table above, it is clear that there is significant difference between cash and bank balance percentage of SCBNL and HBL because the calculated value of t is more than its tabulated value and there is significant difference between loan and advances, government securities and miscellaneous liquid assets percentage of SCBNL and HBL because the calculated value of t is more than its tabulated value, and therefore, the null hypothesis is rejected.

4.6.2 Liquidity Position

To judge whether there is significant difference in liquidity position between SCBNL and HBL, following null hypothesis and alternative hypothesis are formulated and tested.

a.Null Hypothesis:

H_0: There is no significant difference in liquidity position between SCBNL and HBL.

b. Alternative Hypothesis:

H_1: There is significant difference in liquidity position between SCBNL and HBL.

The following table exhibits the mean value of various percentages measuring the liquidity position of SCBNL and HBL and student t value.

Table4.24

t-value of Liquidity Position

S.N.	Composition	SCBNL Mean	HBL Mean	Calculated t Value	Tabulated t Value	Result/ Decision
1.	Liquid Ratio	1.119	1.11	1.06	2.179	H_0 is accepted
2.	Quick Ratio	0.56	0.28	10.16	2.179	H_0 is rejected
3.	Cash & Bank Balance to Deposit Ratio (Ext. Fixed Deposit)	0.198	0.0986	8.32	2.179	H_0 is rejected
4.	Fixed Deposit to total deposit ratio	0.11	0.216	1.02	2.179	H_0 is accepted
5.	Saving Deposit to Total Deposit ratio	0.593	0.54	0.172	2.179	H_0 is accepted

(Source: - Annex 31, 32, 32, 33, 34 & 35)

From the table above, it is clear that the liquid ratio, saving deposit to total deposit ratio and fixed deposit to total deposit ratio of SCBNL and HBL is no significantly difference as their calculated t value is less than the tabulated value. There is, however, significantly difference in cash and bank balance to deposit ratio and quick ratio of these two banks.

4.6.3. Profitability Position

To judge whether there is significant difference in profitability position between SCBNL and HBL, following null hypothesis and alternative hypothesis are formulated and tested.

a. Null Hypothesis: -

H_0: There is no significant difference in profitability position between SCBNL and HBL.

b. Alternative Hypothesis:

H_1: There is significant difference in profitability position between SCBNL and HBL.

The following table shows the mean value of various percentages measuring the profitability position of SCBNL and HBL and student t value.

Table 4.25

t-value of Profitability Position

S.N.	Composition	SCBNL Mean	HBL Mean	Calculated t Value	Tabulated t Value	Result/ Decision
1.	Interest Earned to Total Assets	0.0471	0.053	1.93	2.306	H_0 is accepted
2.	Net Profit to Total Assets	0.024	0.0137	7.81	2.306	H_0 is rejected
3.	Net Profit to Total Deposits	0.027	0.016	5.92	2.306	H_0 is rejected
4.	Cost of Services to Total Assets	0.017	0.022	3.07	2.306	H_0 is rejected

(Source: - Annex 36, 37, 38 & 39)

From the above table, it is learnt that interest earned to total assets is no significant difference ass their calculated t value is less than tabulated value. Interest earned to total assets of SBNL and HBL null hypothesis is accepted. There is significant difference in net profit to total assets, cost of services to total assets and net profit to total deposits of SCBNL and HBL null hypothesis is rejected.

4.7 Findings of the Study

The major findings of this study of SCBNL and HBL during the seven-year period are summarized below:

1. The proportion in cash and bank balance, loan and advances and government securities to total liquid assets on an average are 15.58, 36.96 and 30.95 in SCBNL and 8.40, 75.72 and 13.70 in HBL, respectively.
2. The average net working capital in SCBNL is Rs. 6236.82 million and that of HBL is Rs. 8010.03 million. The CV of SCBNL is 0.51 and that of HBL is 0.59. The average liquid ratio of SCBNL and HBL are 1.27 and 1.37 respectively.
3. fixed deposit to total deposit ratio on an average in SCBNL is 0.11 and HBL is 0.21.
4. Average of Savings deposit to total deposit ratios in SCBNL is 0.52 and HBL is 0.51.
5. Average of turnover positions of Loan and advances to total deposit ratio , Loan and advances to fixed deposit ratio, Loan and advances to saving deposit ratio of 0.35, 2.52, 0.78 in SCBNL and 0.66, 2.69, 1.34 in HBL respectively.
6. Average of profitability position of Interest earned to total assets ratio of SCBNL 0.05% and HBL 0.062%
7. The trend value of interest earned to total assets ratio on an average are 0.0523 in increasing. Although the net profit to total assets ratios and net profit to total deposit ratios on an average of 0.015 in positive.
8. Cost of services to total assets ratio of SCBNL is 0.015 and HBL is 0.023.
9. The correlation coefficient of Loan and advances and total deposits of SCBNL is 0.96 and HBL is 0.99. SCBNL and HBL are significantly correlated. Investment on

government security and total deposits of SCBNL is 0.2247 and HBL is 0.60. SCBNL and HBL is highly insignificant.

10. Coefficient of correlation between cash and bank balance and liquid liabilities in SCBNL is 0.10 and HBL is 0.60. Coefficient of correlation between loan and advances and net profit of SCBNL is 0.93 and HBL is 0.82.
11. Testing the hypothesis of companies of working capital, Mean value of proportion of cash and bank balance of SCBNL and HBL is significantly different. Mean value proportion of loan and advances, government securities and miscellaneous liquid assets of SCBNL and HBL are significantly different.
12. While testing the hypothesis of liquidity management Mean value of quick ratio, cash and bank to total deposit ratio, saving to total deposit and saving deposit to total deposit ratios of SCBNL are significantly different from HBL. Fixed deposit to total deposit ratio of SCBNL and HBL is not significantly different. .
13. Hypothesis of profitability position Net profit to total assets, Net profit to total deposits and cost of services to total assets ratio of SCBNL are significantly different from HBL. Mean value of interest earned to total assets of SCBNL are no significantly different from HBL.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter is dedicated to provide conclusions after comparatively analyzing the liquidity management of two joint venture banks, Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited (HBL), respectively. It also tries to provide some recommendations to the concerned banks from the conclusion derived from the study.

Summary

Establishment of commercials banks, especially joint venture banks, has continued in response to the economic liberalization policies of the government. As a result, in Nepal there are seventeen commercial banks at present competing with each other in their business. These joint venture banks have concentrated themselves on financing foreign trade, commerce and industry.

As mentioned earlier, this study concentrates on the comparative analysis of liquidity position of aforementioned banks SCBNL and HBL. From the perspective of the researcher, these two banks are chosen for study mainly because of accessibility and availability of financial data for latest seven year period.

To fulfill the objective, an appropriate research methodology has been developed, which includes ratio analysis as financial tool and trend analysis, correlation coefficient and test of hypothesis as statistical tools. The major ratio analysis consists of the composition of working capital, liquidity position, turnover position, capital structure position and profitability position. Under these, main ratios and their trend position are studied in the chapter four.

In order to test the relationship between the various components of working capital, Karl Pearson's Correlation Coefficient r is calculated and analyzed. Some null hypothesis formulated in chapter three, are tested in appendices and results are analyzed in chapter four. The necessary data are derived from the balance sheet and profit and loss account of SCBNL and HBL for the period of seven years from fiscal year 2005/06 to 2011/12 B.S.

In this chapter an attempt has been made to present conclusions and some suggestions and recommendations.

5.2 Conclusion

After analyzing the two samples banks SCBNL and HBL comparatively using various financial and statistical tools, various important conclusions have been derived from the study. The following points can be concluded.

1. The liquidity position of HBL is slightly better than that of SCBNL. Although higher liquidity means lower risk as well as lower profit, but in commercial bank, higher liquidity is not always the cause of lower profitability.
2. HBL is utilizing its funds more efficiently for the generating purpose on loan and advances than SCBNL.
3. HBL is utilizing saving deposits more for the income generating purpose whereas SCBNL is utilizing more fixed deposits for the income generating purpose.
4. In terms of interest earned to total assets ratio of HBL profitability is slightly higher than that of SCBNL. Therefore, HBL is more efficiently using its total assets (funds) to earn interest income. The net profit to total assets and the net profit to deposit ratios are also higher in SCBNL than in HBL.
5. The average profitability ratio of SCBNL is higher than that of HBL. Both the banks have constant level of growth in profitability during the study period. To acquire higher profits they should take strong steps for the better management, strong marketing and strategic development etc.
6. The correlation coefficient of the variables selected for the statistical analysis shows that SCBNL has significant relationship with cash and bank balance and liquid liabilities and government securities and total deposits but insignificant relationship with loan and advances and net profit and loan and advances and total deposit. Similarly, HBL has insignificantly relationship with cash and bank balance and liquid liabilities and government securities and total deposits except loan and advances and total deposits and loan and advances and net profit.

Therefore, from above all, it can be concluded that both the banks are not of much difference. Comparatively, SCBNL is financially steady and better than HBL. But it does not mean that HBL is not performing well. Both banks are striving for better performance by adopting various new strategic and providing additional services.

5.3 Recommendations

On the basis of above analysis and conclusion, following recommendations are made.

1. Regarding the composition of liquid assets the proportion of cash balance is less as compared to other components in both banks. So, both banks should try to increase their cash balance as they are the best liquid assets.
2. The turnover positions of SCBNL have a fluctuating trend. Whereas HBL has slightly constant fluctuations. So SCBNL has to work on reducing such fluctuations.
3. The proportion of loan and advances out of the total liquid assets of HBL and SCBNL is more than 50% of liquid assets. Hence, both should adjust its policy of investment on loan and advances with collected funds and increase the proportion of loan and advances in total liquid assets.
4. Cost of services to total assets ratio of HBL is higher than that of SCBNL. So it would be better to decrease the cost of services of SCBNL.
5. In case of both Banks, we found always positive working capital. This implies that there is sufficient amount required or operational requirement in the study of period.
6. The liquidity position in terms of liquid ratio of both SCBNL and HBL are below than normal standard. Therefore, both banks should increase the liquid assets.
7. Fixed deposits and saving deposits turnover position are also not satisfactory on both banks. Therefore, both SCBNL and HBL should give proper attention on collection of over-dated loan and advances and utilization of idle funds as loan and advances.
8. Proportion of saving to total deposit is more than 30% in both SCBNL and HBL. Comparatively, SCBNL is better than of HBL.
9. Net profit to total assets ratio and net profit to total deposits ratio are higher on SCBNL than HBL. However, interest earned to total assets ratio and the cost of

services are higher on HBL than SCBNL. Therefore, HBL should try to reduce its cost by reducing high cost deposits and operating in proper and efficient way so that it can have least operating cost which further maximizes its profitability and shareholder return.

10. The unskilled manpower, over-staffing, unsystematic purchase of raw materials, unnecessary expenses, misuse of facilities, heavy expenses on overhead etc. may be the causes for high operating cost. So, both SCBNL and HBL are recommendation to pay attention to these aspects.
11. From turnover ratios, investment policy of HBL seems better than that of SCBNL during the study period. It is therefore necessary for SCBNL to utilize its deposits in income generating activities by better investment efficiency on loan and advances.
12. By implementing the matching working capital management policy instead of adopting conservative working capital policy, SCBNL, as well as HBL, can improve in its profitability in both short and long runs.
13. Improper working capital leads to decrease the profitability of the company and leads to ruin the company in the long run. So, SCBNL and HBL are recommended to give emphasis to proper liquidity policy to uplift the financial performance of the companies in the competitive age of today.

BIBLIOGRAPHY

Acharya, B.P. (2000), "*NTC in Utilizing Liquid Asset",* Kathmandu: NTC, Silver Jubilee Special Issue. Sanchar Telecommunication Corporation.

Acharya, K. (1985), "*Problems of Liquidity Management in Nepalese Organization",* Kathmandu: ISDOC. Volume10.

Adhikari, R.K. (2011), "Short run Price Performance of IPOs: Evidence from Nepal", Unpublished M.phill Thesis, Kathmandu: Central Department of Management, T.U

Agrawal, A. (2002), "*Study on Deposit and Investment Position of Yeti Finance Company Limited"*, Unpublished Master's Thesis, Kathmandu: Central Department of Management, T.U.

Amihud, Y. (2002), "Illiquidity and Stock Returns: Cross-Section and Time-Series Effects" , *Journal of Financial Markets*, Vol.5, pp. 31-56.

Avanindar, S. (2009), "*The Implications of Liquidity and Order Flows for Neoclassical Finance*", *Pacific-Basin Finance Journal*, Vol. 17, pp. 527–532

Bhandari, D. R (2004), "*Banking and Insurance: Principle and Practice"*, Kathmandu: Ayush Publication,

Datar, V., Naik, N. and Robert, R. (1998), "Liquidity and Stock Returns: An Alternative Test", *Journal of Financial Intermediation,* Vol.2, pp.203-219.

Gupta, S.P. (1987), *Statistical Methods, 22nd edition.* New Delhi: Sultan Chand and Sons Publishing House.

Howard, D. (1983),"*Commercial Bank and Financial Management"*, 5th edition, New Jersey, USA: Printice Hall Inc.

Khattri, C.N. (2000), "*A Comparative Study of Liquidity Management of Nepal Bank Ltd. and Nepal Arab Bank Ltd",* An Unpublished Master's Degree Thesis, Kathmandu: Central Department of Management, T.U.

Kafle, D. (2003), "*Monetary and Financial Reports in Nepal"*, Kathmandu: National Debt Newspaper, NRB.

Limbu, A. (2008), "*Credit Management in NABIL Bank Limite",* An Unpublished Master's Degree Thesis, Kathmandu: Shankar Dev Campus, T.U.

Nepal Rastra Bank(2061/62-2067/68), *Annual Report*, Kathmandu.

Nepal Rastra Bank (2061/62-2067/68),*Economic Report*, Kathmandu: NRB

Neupane, G.P (1992), *Nepal Ko Arthasastra, 2nd Edition*. Kathmandu: M.K. Publishers and Distributors.

Poudel, P (2007), "*A Study on Liquidity and Investment Position of Joint Venture Commercial Banks in Nepal",* An Unpublished Master's Degree Thesis, Kathmandu: Shankar Dev Campus, T.U.

Pandey, I.M. (2000), "*Financial Management*", New Delhi: Vikas Publishing House Pvt. Ltd.

Pathak, P.K. (1994), "*An Evaluation of Working Capital Management of Nepal Oil Corporation",* An Unpublished Master's Degree Thesis, Kathmandu: Shankar Dev Campus, T.U.

Pradhan, S. (2000), "*Basics of Financial Management", 2nd edition*. Kathmandu: Educational Enterprises Pvt. Ltd.

Pradhan, R.S (1994), "*Financial Management Practice in Nepal"*, New Delhi: Vikash Publishing House.

Reed, E. W. (2002), "*Commercial Bank Management"*, New York: McGraw Hill Book Company.

Ross, P. (2002), "*Commercial Bank Management"*, New York: McGraw Hill Book Company.

Sapkota, K. (2006), "*A Study on Fund Mobilizing Policy of Standard Chartered Bank Ltd in Comparison to Nepal Bangladesh Bank Ltd",* An Unpublished Master's Degree Thesis, Kathmandu: Shankar Dev Campus, T.U.

Sayers, R.S. (1967), "*Modern Banking",* New Delhi: Oxford Clarenden Press.

Sharma N. (2010), "*Commonality in liquidity on the Chinese stock markets",* An Unpublished Master's Degree Thesis, Kathmandu: Central Department of Management, T.U

Shrestha, S.P. (1993), "*Financial Liberalization in Nepal: Paradoxes Problems and Prospects",* NRB Samachar.

Shrestha, M.K. and B, D B. (2004), "*Financial Markets and Institutions",* Kathmandu: Amita Books Publishers and Distributers

Sinkey, J. F. (1983), "*Commercial Bank and Financial Management"*, 5th edition, New Jersey: Printice Hall Inc.

Tandukar, A. (2003), "*Role of NRB in Deposit Mobilization of Commercial Bank",* An Unpublished Master's Degree Thesis, Kathmandu: Shankar Dev Campus, T.U.

Thapa, G.B. (1993), "*Issues in Financial Sector Reforms",* NRB Samachar.

Van H., J.C. and Wachowicz, J.M. (2000), "*Fundamentals of Financial Management",10th Edition.* New Delhi: Printice Hall of India Pvt. Ltd.

Weston, J.F. and Copeland, T.E. (1990), "*Managerial Finance", 9th edition.* New York: The Dryden Press.

Wolff, H.K. and Panta, P.R. (1999), "*A Hand Book for Social Science Research and Thesis Writing", 2nd edition.* Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

Websites: -

www.google.com (2068/8/10)

www.hbl.com.np (2068/10/10)

www.nepalstock.com(2068/9/10)

www.nrb.org.np (2068/11/28)

www.sebonp.com(2068/10/10)

www.scbnl.com.np(2068/10/10)

www.wikipedia.com(2068/9/25)