CHAPTER - I
INTRODUCTION

1.1 Background of the Study

Financial institution is a vast field comprising of banks, financial companies, insurance companies, co-operatives, stock exchange and foreign exchange markets, mutual fund, etc. These institutions collect idle and scattered money from the general public and finally invest in different enterprises that consequently help in reducing poverty, increase in life style of people, increase employment opportunities, and thereby developing society and the country as a whole. Thus, today the financial institutions have become the base for measuring the level of economic development of a country.

Commercial banks furnish credit to finance consumption and investment spending. Credit consists of a loan of funds in return for a promise of future payment. Basically, the principal business of commercial banks is to make loans to qualified borrowers or at least to assist them to find credit from some other sources. Loans are highest yielding assets that a bank can add to its portfolio and they often provide the largest portion of traditional bank's operating revenue.

Commercial banks make loans of reserves to other banks through the funds deposited at the central bank. Far more important, in rupee volume, however, are the direct loans to business and individuals. These loans arise from the negotiation between the bank and its customers resulting a written agreement designed to meet the specific credit needs of the customer and requirement of the bank for adequate security and income for the specific period at a specific interest cost.

For the balancing of lending and borrowing of the funds, there should be adequate reserve funds in the commercial banks. These funds are called liquid funds. To provide money for demands depositors and other contingency purpose banks should maintain proper liquidity position. The Nepal Rastra Bank (NRB) directs the rules and

regulations about the liquidity position and its management criterion, which is the regulatory body of all commercial banks and other financial institutions.

Bankers manage portfolios of assets and liabilities and the accompanying information flows. The key portfolio risks of bank are credit risk, interest rate-risk and liquidity risk. These specific risks generate variability in banks cash flows a common general definition of risk in finance. Excessive risk taking and adverse economic conditions are the ingredients for bank failure.

Credit or default risk to the uncertainty is associated with loan repayment. Because most of a bank earning assets is in the form of loans, problems with loan quality have been the major cause of bank failure. Symptoms of poor quality include high level of non-performing loans, loan losses and examiner classified loans (i.e. substandard, doubtful and loss). "A high proportion of loans relative to total assets and repaid growth of the loan portfolio are potential early-warning signals of loan quality problems, which may indicate potential failure. In contrast, high performance banks tend to have high quality loan portfolio as characterized by low level of non-performing loans and loan losses". *(Pandey, 2005:145)*

"Liquidity is the availability of cash in the amount and at the time needed at a reasonable cost. One of the most important tasks faced by the management of any bank is ensuring adequate liquidity. A bank is considered to be liquid if it has ready access to immediately spendable funds at reasonable cost of precisely the time those funds are needed. This suggests that a liquid bank either has the right amount of immediately spendable funds on hand when they are required or can quickly raise liquid funds by borrowing or by selling assets". *(Ross, 2001:345)*

Lack of adequate liquidity is often one of the first signs that a bank is in serious financial trouble. The troubled bank usually begins to lose deposits, which erodes its supply of cash and forces the institution to dispose of its more liquid assets. Other banks become increasingly reluctant to lend the troubled bank any funds without additional security or a

higher rate of interest, which further reduces the earnings of the problem institution and threatens it with failure. Many banks assume that liquid funds can be borrowed virtually without limit any time they are needed. Therefore, they see little need to store liquidity in the form of easily marketed, stable-price assets.

1.1.1 Profile of the Sample Banks

A. Bank of Kathmandu (BOK)

Bank of Kathmandu Ltd. (BOK) is a one of the private sectors banks of the country in established in 1993 which commenced its commercial business in March, 1995. BOK was established by a group of distinguished civil servants and renowned businessmen in collaboration with the SIAM Commercial Public Company Limited (SCB) - a leading bank of Thailand. Upon establishing BOK as one of the reputed banks in a short period, the Nepalese promoters decided to conclude the technical service agreement with SCB and BOK to be arranged by the Nepalese professionals as it could further enhance its business performance years ahead under the Nepalese management. With the well-acclaimed capabilities of the Nepalese management team, BOK has successfully enhanced its capital structure, profitability; reach to the customers and image in the market. It has created a position in the industry in a shortest possible span of time. Since, BOK is established with the objective of providing prompt and quality services the clients. Therefore, it has become successful Commercial banks in Nepal.

BOK’s organizational structure is based on a multi -pronged strategy of administrative streamlining, human resource experienced cost management, timely assets management and planned asset growth. The organizational structure to guarantee consistency and high level of standards in all its operations. At the same time, because of confidence from time proven methods, it is also flexible enough to ensure effective control and supervision while still being in its functions and diversity of services. BOK also aims to facilitate the nation's economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning. Bank of Kathmandu provides cost effective and efficient financial services to its clients through the following major areas of service delivery.

B. Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 32 branches. Punjab National Bank (PNB) is the joint venture partner (holding 20% equity in the bank).

Recognizing the value of offerings a complete range of services, we have pioneered in extending various customer service. EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal. EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind. Everest Bank is first private commercial bank having largest network. This is one of the lowest NPA among the commercial bank in Nepal. The local Nepalese Promoters hold 50% stake in the Banks equity, while 20% of equity is contributed by joint venture partner PNB whereas remaining 30% is held by the public.

From the very beginning, the bank has been providing services with latest technology and computerized equipments and the bank is fully determined to offer quality services to its valued clients. The bank is using computerized banking technique. The software is the use in 'Pumori plus.' It is going to launch 'Anywhere Branch Banking System through Wide Area Network in near future. The branches within the valley provide their services from Monday to Friday i.e. five days a week. However, the main Branch in Baneshor and New road are providing services through additional counters on Sunday too.

1.2 Focus of the Study

This study attempts to analyze the liquidity mobilization and management BOK and EBL in existing practice and methodologies in this technical era. This study also concentrated on whether the theories on liquidity management founded by varies economist and bankers match in Nepalese context or not. This study will also focus to analyze whether

it is true or allegedly aired. Thus, how the liquid assets influenced and what is the real solution can be suggested will be the focus point of this study.

1.3 Statement of the Problem

This study will try to find out the liquidity mobilization of commercial banks. The need of liquidity management for economic development of a country is no more to question. But we are facing an acute problem of liquidity mobilization. It seems to be not only general public but also university graduate in commerce and economics cannot calculate the effect of liquid fund in the economy and various banks are suffering from this problem. More especially the study is expected to answer the following research questions:

- What is the position of liquidity in concern commercial bank?
- Are they maintaining sufficient liquidity?
- Do the liquidity increases in lack of secured investment opportunities?
- How to make optimal management of liquidity in commercial banks?
- Do the liquidity positions influence the profit of bank?
- What is the relationship between investment, loans and total deposits?
- What is the gap between deposits mobilized and investments or use there of the sample banks?

1.4 Objectives of the Study

Proper liquidity mobilization of bank is one of major decision functions of commercial banks. The objective of this study is to examine and analyze liquidity mobilization and its management of banks. The main objectives of the study are as follows:

- To examine the liquidity mobilization of sample banks.
- To see the liquidity position and management of BOK and EBL banks.
- To find out the relationship between deposit, investment, loans and advances and net profit.
- To conduct trend analysis of deposit, investment, loans and advances and net profit.

1.5 Significance of the Study

All financial decisions of commercial banks are for the betterment of shareholders wealth. There should be an effective system of funds allocation in order to safeguard the banks from the danger of liquidity. An appropriate level must be achieved between them. The study ponders to find out whether commercial banks are alert or not in this regard and possible situations where the banks need additional liquid funds. A few studies have been made on the liquidity management in commercial banks. Most of the studies made up to present on capital market are related to Financial performance, investment, capital structure analysis, dividend policy, risk and return etc, but the research have yet been made on the core perspective of the liquidity and its management. So the present study will be of substantial importance for investors, planners, researchers, professionals, executives and students to meet their personal and organizational objectives. This study intends to review mobilization of idle capital of average Nepalese in productive sectors to accelerate the economic growth and to reduce dependency on foreign assistance and loan. This study will help regulatory authority to find out liquidity management of the commercial bank. It will be a reference to the concerned personnel and researchers. This study will also show and suggest the available investment opportunities satisfying both objectives (liquidity and profitability) of commercial banks.

1.6 Limitations of the Study

As the study is being carried out in a partial fulfillment of the requirements for the degree of Master of Business Studies, it possesses a number of limitations of its own kind. Some of the basic limitations of the study could be illustrated as follows:

a) Due to the small sample size it may not fully represent Nepal as a whole.
b) The study covers the data of only five fiscal years from 2007/08 to 2011/12 and the conclusion drawn confines only to the above period
c) The study is mainly based on the published secondary data so the analysis of the study depends on reliability of the data provided.

1.7 Organization of the Study

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

Chapter-I: Introduction

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

Chapter-II: Review of Literature

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

Chapter-III: Research Methodology

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

Chapter-IV: Presentation and Analysis of Data

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

Chapter-V: Summary, Conclusion and Recommendation

Finally, summary and conclusions of the study are presented in chapter five. Recommendations for further research are also offered.

Bibliography and other appendixes have been attached at the end of the study.

CHAPTER - II
REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant proposition in the related area of the study. For review study, the researcher uses different books and articles, reviews and abstracts, indexes, reports published by various institutions and encyclopedia etc.

We study the review of literature in dividing two parts:

- Conceptual Review
- Review of related Studies

2.1 Conceptual Review

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

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

2.1.1 Meaning of Liquidity

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

"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, mad 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: 115)*

Liquidity means a matter of maintaining what the bank has promised to pay the depositors - cash. In the banking system primary reserves are known as legal reserve and working reserves. The term is economic rather than accounting concept. Legal reserves are the requirement of monetary authority. Bank management, student of banking studies and monetary authority are referring the other names for primary reserve to designate certain ideas and concept regarding banks' assets. Primary reserves include non earning assets such as cash in vault, the deposits carried out by banks with correspondent banks and central bank, and cash items. "The cash items represent cheques held on in process of collection by the banks. The objective of primary reserves in banking system is maintaining liquidity and solvency". *(Reed, 2002: 431-448)*

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

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

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

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

2.1.2 Importance of Liquidity

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. 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 NRB. 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 importance for the banks.

b) To pay all Sorts of Deposit

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

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

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

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

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

crisis. The bank should maintain some liquidity of some certain percent cash fund to keep safe from such situations.

e) To Fulfill the Demand of the Debtor

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

f) To Gain Trust or Faith

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

g) Providing Security to the Banks

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

2.1.3 Principles or Theories of Liquidity Management

There are apparent conflicts between objectives of liquidity, safety and profitability relating to a commercial bank. Economists have tried to resolve these conflicts by laying down certain theories from time to time. These principles or theories, in fact, govern the distribution of assets keeping in view these objectives. They have also come to be known as the theories of liquidity management which are discussed as under:

A. 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 posses 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: 240)*

B. Asset Conversion or the Shiftability Theory

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

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

C. 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 shiftabilitv theory because, it fulfills the three objectives of liquidity, safety and profitability. Liquidity is assured to the bank when the borrower saves and repays the loan regularly in installments. It satisfies the safety principle because the bank grants a loan not only on the basis of a good security but also on the ability of the borrower to term-loan and is assured of a regular income. Lastly, the term-loan is highly beneficial for the business". *(Bhandari, 2004: 149)*

D. The Liabilities Management Theory

"This theory was developed in late 1960s and early 197Os, 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, form different sources. These sources include the issuing of time certificates of deposit, borrowing form other commercial banks borrowing from the central bank, raising of capital funds by issuing shares, and by ploughing back of profits". *(Sinkey, 1983: 240)*

i) Time Certificates of Deposits:

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

ii) Borrowing from Other Commercial Banks:

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

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 form 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 dividend policy. It is larger banks that can depend on this source rather than the smaller banks.

2.1.4 The Demand for and Supply of Bank Liquidity

A bank need for liquidity-immediate spendable funds-can be viewed within a demand supply framework. What activities give rise to the demand for liquidity inside a bank and what source can the bank rely upon to supply liquidity when spendable funds are needed are to be considered sincerely. For most banks, the most pressing demands for spendable funds come from two sources: "(1) customers withdrawing money from their deposits, and (2) credit requests from customers the banks 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. Following table shows more clearly." *(Ross, 2002: 347)*

Table: 2.1

Source of Demand and Supply for Liquidity within the Banks

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

Source: *(Ross, 2002: 347)*

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, especially marketable securities, from the bank's investment portfolio. Liquidity also flows in from revenues generated by selling non-deposit services and from borrowings in the money market.

These various sources of liquidity demand and supply come together to determine each bank's net liquidity position at any moment in time. That net liquidity position at time’t’ is as follows.

Table: 2.2

Net Liquidity Position Calculation Table

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

Source: *(Ross, 2002: 348)*

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' current menu of deposits and other services, or negotiating long-term borrowings of reserves from other banks. Of course, a bank need not meet all demands for liquidity by selling assets or borrowing new money. For example, just the right amount of new deposits may flow in, or loan repayments from borrowing customers may occur very close to the date that new funds are needed. Timing is critical to liquidity management: bankers must plan carefully how, when, and where needed liquid funds can be raised.

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

buy stock on margin were forced to come up with additional funds to secure their stock loans. They went to their banks in huge numbers, turning a liquidity crisis in the capital market into a liquidity crisis for banks.

The essence of the liquidity management problem for a bank may be described in two succinct statements.

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.

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

“From a slightly different vantage point, we could say that management of bank liquidity is subject to the risk that interest rates will change (interest rate risk and the risk that liquid funds will not be available in the volume needed by the bank (availability risk). If interest rates rise, financial assets that the bank plans to sell to raise liquid funds, such as government bonds, will decline in value, and some must be sold at a loss. Not only will

the bank raise fewer liquid funds from the sale of those assets, but the losses incurred will reduce bank earnings as well. Then, too, raising liquid funds by borrowing will cost more as interest rates rise, and some forms of borrowed liquidity may no longer be available to the bank. If the lenders of liquidity perceive a bank to be more risky than before, that bank will be forced to pay higher interest rates to borrow liquidity, and some lenders will simply refuse to make liquid funds available at all". *(Ross, 2002: 349)*

2.1.5 Liquidity Problem in Bank

It should be clear from the foregoing discussion that banks face major liquidity problems. The significant exposure of banks to liquidity pressures arises from several sources. First, banks borrow large amounts of short-term deposits and reserves from individuals and businesses and from other lending institutions and then turn around and make long term credit available to their borrowing customers. Thus, most banks face some imbalances between the maturity dates on their assets and the maturity dates attached to their liabilities. Rarely will incoming cash flows from assets exactly balance the cash flowing out to cover liabilities.

A problem related to the maturity mismatch situation is that banks hold an unusually high proportion of liabilities subject to immediate payment, such as demand deposits, NOW accounts, and money market borrowings. Thus, banks must always stand ready to meet immediate cash demands that can be substantial at times, especially near the end of a week, at the first of each month, and during certain seasons of the year.

Another source of liquidity problem is the bank's sensitivity to changes in interest rates. When interest rates rise, some depositors will withdraw their funds in search of higher returns elsewhere. Many loan customers may postpone new loan request or speed up their drawing on those credit lines that carry lower interest rates. Thus, changing interest rates affect both customers demand for deposits and customer demand for loans, each of which has a potent impact on a bank's liquidity position. Moreover, movements in interest rates affect the market values of assets the bank may need tom sell in order to rise additional liquid funds, and they directly affect the cost of borrowing in the money market. Beyond

these factors, a bank must give high priority to meeting demands for liquidity. To fail in the area may severely damage public confidence in the institution. We can imagine the reaction of bank customers if the teller windows and teller machine had to be closed one morning because the bank was temporarily out of cash and could not cash cheques or meet deposit withdrawals (as happened to a bank in Montena several years ago, prompting a federal investigation). One of the most important tasks of a bank's liquidity manager is to keep close contact with the bank's largest depositors and holders of large unused credit lines to determine if and when withdrawals of funds will be made and to make sure adequate funds are available.

2.1.6 Factors Affecting Needs of Bank Liquidity

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

A) External Environmental Factors

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

B) Internal Environmental Factors

1. **Lending Policy of Bank:** High level of liquidity requires to the bank if it has adopted a long term or mid term loan policy. Otherwise low level of liquidity requirement is applicable for the short-term investment policy adopting bank.
2. **Management Capacity:** low level of liquidity needs to high-risk bearing and capable risk handling management. Other high level of liquidity needs for risk averter and relatively low capable or inefficient management.
3. **Strategic Planning and Fund Flow Situation:** Liquidity needs is affected by bank's investment policy, strategic planning and objectives. It is also affected by

the funds flow situation and lending policy. If the bank has collected more amount in current account relatively there will be high level need of liquidity otherwise there is low level of need of liquidity. It depends on maturity matching of assets and liability of banks.

2.1.7 Criterion for Measuring Bank Liquidity

"It is very important to study criteria for measuring bank liquidity. The bank liquidity is the most important aspect of a bank. If there is less bank liquidity, the bank can't be run. If there is much liquidity, the bank should, bear great loss economically. Both high liquidity and low liquidity are not good omen for the bank. The bank should be able to keep the liquidity in balance. This is very difficult task. However the bank liquidity can be measured by the following criterion". *(Bhandari, 2004: 158)*

a) Deposit Investment Ratio

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

b) Investment in Assets

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

institution, bank liquidity is abundant. In this way, the investment that the bank did can be used as the criteria of measuring liquidity.

c) Cash Reserve Ratio

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

d) Profitability

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

e) Investment in Loan

The bank distributes loans in different sectors. The source of loan investment is Important for the various sources of income of the bank. It is an important to know what short of loan and how much loans the bank has distributed. While the bank distributes the loan. If the bank is intensified with the concept of gaining profit, the bank flows loans on a long term and mid term basis. If it has paid its attention to the safety, it invests in short term loan. If a great deal of amount is invested in the short-term loan, bank retains high liquidity. If it has invested in long term, mid term, there is lower liquidity. Thus, loan investment too can be the criteria of measuring the liquidity.

f) Structure of Bank

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

g) Position of Business

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

2.1.8 Strategies for Liquidity Management in Existing Practice

Nepal Rastra Bank implements monitory policy to extend or narrow the loan flowing capacity of commercial banks to manage the liquidity foreign capital and internal loan are the main reason of liquidity growth. It becomes impossible for the central bank to control the growth of the forcing Capital by the implementation of the monetary policy. The central bank use its monetary policy with its internal loans because the main sources of flowing internal loans are the commercial banks and they use the monetary policy as a main device of managing liquidity. “In managing the liquidity, the central bank pays attention main device of managing liquidity. In managing the liquidity, the central bank pays attention mainly in two aspects”. *(Bhandari, 2004: 165)*

a) Not to make less liquidity which is necessary for the commercial banks to run their transactions?
b) To save the economy from the sustainable effect, that causes to arise, the high liquidity and the liquidity crisis.

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

a) Strategy Relating to Deposit

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

b) Strategy Relating to Investment

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

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

c) Strategy Relating to Reserve Fund

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

d) Strategy Relating to Dividend

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

e) Strategy Relating to Capital

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

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

2.1.9 Review of NRB Directives about Liquidity Management

A. Cash Reserve Ratio (CRR)

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

B Statutory Liquidity Ratio (SLR)

SLR is another instrument of monetary policy. SLR is known as a legal liquidity reserve of commercial banks. It is a certain percentage of deposit as directives issued by NRB. The concept of SLR is evolved from 2031 B.S. in Nepal. At the starting the rate of SLR was 32% of total deposit. But, this provision is repealed in 2050 B.S. Now, from 2060/61 only CRR rate is in practice in Nepal. Currently the SLR to be maintained by the banks is 15% of its total deposit.

C Provision to Minimize Liquidity Risk

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

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

Provision for having infinite maturity period assets and liabilities:

a) Out of total current deposit core deposit and compensating balance should be included in the more than one-year maturity period time interval.

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

2.2.1.20. Managing Liquidity Risk

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

Overview

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

Principle 1: A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should

take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.

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

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

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

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

2. Liquidity Risk Indicators

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

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

3. Liquidity Risk Management

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

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

4. Board and Senior Management Oversight

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

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

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

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

- Establish effective internal controls over the liquidity risk management process.

5. Liquidity Risk Strategy and Policies

Banks should formulate and implement appropriate liquidity risk management policies approved by the Board of Directors. The liquidity strategy must be documented in a liquidity policy, and communicated throughout the bank. The strategy should be evaluated periodically to ensure that it remains valid. Specific details of the policy may vary from bank to bank according to the nature, size and complexity of their business. At minimum it should cover general liquidity strategy (short- and long-term), specific goals and objectives in relation to liquidity risk management, process for strategy formulation and the level within which it is approved. The strategy should provide continuity in approach and should be reviewed and amended periodically as deemed necessary; it should be viable in the long term and through various economic cycles. The liquidity risk strategy defined by board should enunciate specific policies on particular aspects of liquidity risk management, such as:

5.1 Composition of Assets and Liabilities.

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

5.2 Diversification and Stability of Liabilities.

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

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

5.3 Access to Inter-bank Market

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

5.4 Contingency Funding Plan

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

6 Liquidity Policies

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

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

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

7. Asset Liability Committee

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

8 Liquidity Risk Management Process

An effective liquidity risk management includes systems to identify measure, monitor and control its liquidity exposures. Management should be able to accurately identify and

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

9 Management Information System

An effective management information system (MIS) is essential for sound liquidity management decisions. Bank should be able to monitor its day-to-day liquidity position and Risk Management Guidelines risk control. Liquidity MIS should be developed keeping a crisis monitoring in mind. Accuracy and timeliness of information are important elements for monitoring liquidity. Since bank liquidity is primarily affected by large, aggregate principal cash flows, detailed information on every transaction may not improve analysis.

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

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

10 Liquidity Risk Measurements and Monitoring

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

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

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

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

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

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

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

Principle 11: A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.

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

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

11 Liquidity Ratios and Limits

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

One of the most serious sources of liquidity risk comes from a bank's failure to "roll over" a maturing liability. Cash flow ratios and limits attempt to measure and control the volume of liabilities maturing during a specified period of time. Liability concentration ratios and limits help to prevent a bank from relying on too few providers or funding sources. Limits are usually expressed as either a percentage of liquid assets or an absolute amount. Sometimes they are more indirectly expressed as a percentage of deposits, purchased funds, or total liabilities. For example: liquid assets to total deposit ratio, credit to deposit ratio, total loans/total deposits, short term liabilities to liquid assets ratio, total loans/total equity capital, borrowed funds/total assets etc are examples of common ratios used by banks to monitor current and potential funding levels.

In addition to the statutory limits of liquid assets requirement and cash reserve requirement, the board and senior management should establish limits on the nature and amount of liquidity risk they are willing to assume. The limits should be periodically reviewed and adjusted when conditions or risk tolerances change. When limiting risk exposure, senior management should consider the nature of the bank's strategies and activities, it’s past performance, the level of earnings, capital available to absorb potential

losses, and the board's tolerance for risk. Balance sheet complexity will determine how much and what types of limits a bank should establish over daily and long-term horizons. Liquidity ratios and limit can be early indicators of excessive risk or inadequate liquidity risk management.

12 Foreign Currency Liquidity Management

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

13. Internal Controls

Banks should institute review process that should ensure the compliance of various procedures and limits prescribed by senior management. The structure (unit) for review should be independent of the funding areas. Reviewers should verify the level of liquidity risk and management's compliance with limits and operating procedures. Any exception to that should be reported immediately to the board for necessary actions.

2.2 Review of Related Studies

2.2.1 Review of Journals /Articles

Shrestha (1997) has analyzed in article "*Financial Performance of Commercial Banks using both Descriptive and Diagnostic Approach"* concluded the following points:

a) The structural ratio of commercial banks show that banks invest on the average 75% of their total deposit on the government securities and the shares.
b) The analysis of resources position of commercial banks should quit high percentage of deposit as cash reserve.
c) Return ratio of all the banks show that most of the time foreign banks have higher

return as well as higher risk than Nepalese banks.

d) The debt-equity ratios of commercial banks are more than 100 °% in most of the time period under study period. It led to conclude that the commercial banks are highly leveraged and highly risk. Commercial banks had higher capital adequacy ratio but has been dealing every day.
e) In case of the analysis of the management achievement foreign banks have comparatively higher total management achievement index.

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

Mundul (2008) in his article on *"Understanding of Credit Derivative"* emphasis Credit derivative enable financial institution and companies to transfer credit risk to a third parity and thymus reduce their exposure to the risk of an obligor's default. Credit enhancement technique, which helps reduce the credit risk of an obligation, play a key role in encouraging loans and investment in debts. In legal term credit derivative are privately negotiated bilateral contract to transfer credit risk from one party to another. Some credit enhancement methodologies have existed for a longtime with the support of guarantee, letter of credit or insurance product. However such mechanism works best during economic upturns. As an alternative to commercial risk mechanism, various financial mechanisms have been developed over the past few decades. Such credit risks instruments are normally refer to as credit derivatives. Credit derivative helps to transfer

credit risk away from the lender to some other party. Now credit derivative grew popular both as tools for hedging credit risk exposure as well as method of investing in certain types of credit risk.

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

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

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

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

Mundal (2011) in articles "*Lending Policy: Human and Organizational Aspects"* emphasized an ongoing debate if human and organizational aspects play a role in the

formulation of lending policies of banks and financial institution. It takes the human and organizational factor such as skill, attitudes, human equations and leadership. Policies are ever evolving and cannot be successfully implemented unless the issues in these areas are adequately taken care of and the right environment is set up. When change brings about development of new technical skills, there is ground for clash between experiences these skills. It is more so when both the aspects are equally important. While experience, authority and probably power arte bound to go with one generation. The newer skill involves pencil work, enthusiasm for and the time available to use them would go with the other generation.

A combination of both developing own people and hiring professionals form relevant sector would be good to enhance the internal efficiency and competitiveness. In this regard there are three gaps that are evident even today.

Skill gaps

Organizational change

Generation gaps

It is important to ensure adequate leverage to the operating executives at the industry level vis-à-vis the borrowing clientele including the prospective one. To many estimation the loan market should not become a buyer market pre dominantly, this is likely to cause distortion in the financial system, lending to unhealthy competition amongst lenders.

The country like Nepal needs sincere implementation of change particularly in financial sectors. To be more specific these are require in the process of credit evaluation, writing of credit policy and the bringing about new product. This will certainly assist the development and maturity of the financial market. This will also assists Nepal in the process of integration with global financial market and with the expanding market of the two large neighboring countries. We should take a pragmatic view of the fast developing would and adapt to the changes first for survival and then progress.

2.2.2 Review of Thesis

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

Regmi (2004) conducted a thesis topic on "*A Study on Liquidity Management and Credit Practices of Joint Venture Commercial Banks with reference to Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd*." This study is mainly focused on the liquidity management and the volume of credit in comparison to the deposits. Therefore, the major gap in this research is study of the risk involved in the lending practices or the study of credit risk. Therefore, further study on the risk involved in creating credit can be made.

The main objectives of this thesis are:

- To determine impact of deposit in liquidity and its effect on lending practices.
- To know the volume of contribution made by both bank in lending.
- To examine lending efficiency and its contribution in profit.
- To analyze trend of deposit utilization towards loan and advances and net profit and their projection for next five years.

The major findings and recommendation of this study are:

In terms of liquidity ratio, current ratio of NSBL is higher than that of NBBL. The ratio of liquid fund to current liability of NSBL is higher than NBBL. This shows that NBBL has less consistency than NSBL. The ratio of cash and bank balance to deposit of NSBL is higher than that of NBBL. Cash and bank balance to interest-sensitive deposit measures the liquidity risk arising from fluctuation of interest rate in the market. The ratio of cash and bank balance to interest sensitive deposit of NSBL is higher than NSBL. NSBL has poor position due to high volume of interest sensitive liability in deposit mix.

The ratio of loans and advances to total assets of NBBL is higher than NSBL. Likewise mean ratio of loans and advances to total deposit of NBBL is higher than NSBL. The mean ratio of investment to loans and advances and investment of NSBL is higher than that of NBBL. Likewise the ratio of total investment to total deposit of NSBL is higher than that of NBBL.

The ratio of credit to government enterprises to total credit of NBBL is higher than that of NSBL. The mean ratio of credit tot bills paid and discount to total credit ratio o NBBL is higher than that of NSBL. NSBL has contributed 95.91% in private sector loan, 2.51% in government sector loan and 1.56% in bills paid and discounts. Likewise NBBL has contributed 90.83% in private sector loan, 4.29% in government sector loan and 4.84% in bills paid and discounts.

Among the various measurement of profitability ratio return on equity (ROE) and earning per share (EPS) reflects the relative measure of profitability. The performance of NBBL is better than NSBL. Return 0on equity and earning per share of NBBL are higher than that of NSBL in all years.

The correlations between deposit and loans & advances of both banks have positive value. Also co-efficient of correlation between total income and loans & advances of both bank have positive relation. Coefficient of correlation between net profit and loans & advances of NSBL is negative as other variables like increase in interest suspense and loan loss provision affects net profit. Coefficient of correlation between net profit and loans & advances of NBBL is positive.

Joshi (2005) has conducted a thesis topic on "*Comparative Study of Fund Mobilization and Investment of EBL with NABIL & BOK*)." In this research the researcher has focus on investment analysis of sample banks. The main objective of the study was as follows:

- To discuss fund mobilization & investment policy of NABIL and BOK Ltd
- To evaluate liquidity, efficiency and profitability, risk position, the growth ratios of loan and advance, total investment with other financial variables.
- To offer suitable suggestions based on findings of this study.

Major finding and recommendation of the study are:

Through her research Ms. Joshi has found that the liquidity position of EBL is comparatively better than NABIL and BOK. EBL is comparatively average or in between successful in compared to NABIL and BOK. Total interest earned to total outside assets

of EBL is lowest at all. But overall analysis of profitability ratios, EBL is average profitable in comparison to other compared banks.

She has recommended mobilizing its idle cash and bank balance in profitable sector as loan & advances. Banks should invest of its fund in share and debenture of different companies. He has strongly recommended following consistent liberal lending policy and investing more and more percentage of total deposit in loan and advance, minimum more stability on the investment policy. Bank should fix minimum level of bank balance. He has also suggested adopting innovative approach to marketing and formulating new strategies of serving customers in a more convenient and satisfactory way by optimally utilizing the modern technology and offering new facilities to the customers at competitive prices. She has just compared EBL with NABIL and BOK, based on only 5 years period which would not be reasonable to analyze investment policy of any bank as success or unsuccessful.

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

The objectives of his research are:

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

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

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

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

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

The breakdowns of the objectives of the study are as follows:

- To evaluate various financial rations of the NIB.
- To determine the impact of deposit in liquidity and its effect on lending practices.

- To analyze trend of deposit utilization towards loan and advances and net profit.
- To offer suitable suggestions based on findings of this study

The main recommendations are drawn according to finding and conclusion. It is recommended that extend their credit and branch in rural area, continue to maintain or further increase the performance, decrease the NPL and make proper loss loan provision, required proper market analysis, diversify the investment sector etc. performance of NIBL seems to be good till the date. There are still many opportunities for further growth of the bank. NIBL is suggested to further improve current position of lending portfolio. The bank should concentrate on financial strength, pe5rsonal integrity and credibility of the borrower of loan disbursement. It should maintain high level of monitoring and control system over the disbursed loan and advances. To create opportunity of business new and attractive lending scheme would be launched to the customer.

Looking at the asset management ratio the performance of NIBL seems good in the area of lending, productivity and impact on national economy. The activity ratio also reflects to the soaring performance of NIBL. The decreasing loss loan provision ratio indicates that bank is good enough to judgment in their value customer. The better activity ratio of this bank been a major contributor in managing the lending portfolio according to the demand of the profit oriented business. The high volume of lending activity of NIBL has put this bank in the top position in absolute term. Thus looking at the various summaries and findings, we can conclude that the bank has accelerated its performance in the year 2002/3 and has continued till 2004/5 and the bank has the potentiality to become a leading bank in Nepal.

Limbu (2008) conducted a thesis topic on "*Credit and Liquidity Management of NABIL Bank Limited*" highlighted that aggregate performance and condition of Nabil bank. In the aspect of liquidity position, cash and bank balance reserve ratio shows the more liquidity position. Cash and bank balance to total deposit has fluctuating trend in 5 years study period. Cash and bank balance to current deposit is also fluctuating. The average

mean of Cash and bank balance to interest sensitive ratio is able to maintain good financial condition.

The main objectives of the research study are as follow.

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

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

In the statistical tools analysis, average mean, correlation analysis and trend analysis have been calculated. Correlation coefficient between total credit and total assets shows high degree of positive correlation. Correlation coefficient between total deposit and loan & advances has high degree of positive correlation it is concluded that increasing total deposit will have positive impact towards loan & advances. Trend analysis tools are done for future forecasting. Trend analysis for total, loan & an advance, Total asset and Net profit is done to see future prospect.

Karki (2009) has conducted a thesis topic on "*The Comparative Study on Liquidity Mobilization of Nabil Bank Ltd. and Standard Chartered Bank Ltd*." The main objective

of the study is to find out the ways of utilizing the surplus deposit funds and the right reinvestments for the economic development of a country. The specific objectives of the study are as follows:

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

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

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

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

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

The main conclusion and finding of the study are overall aspect of liquidity position of EBL is comparatively better than HBL. The mean current ratio of EBL is 1.14 and HBL is 1.10. EBL is sound in meeting short-term obligation than HBL. Cash and bank balance to total deposit ratio of EBL has higher HBL which indicates that the bank has higher liquidity of EBL as compare to HBL. Cash and bank balance to current assets ratio of EBL is little higher than HBL. The higher mean ratio shows EBL's liquidity position is better than that of HBL. Investment on government securities to current assets of HBL is higher than EBL. It shows HBL has invested more fund in government securities. EBL has invested little portion of their funds in purchasing of government securities. Assets management aspect of EBL is better than HBL which is justified by little higher loan and advances to total deposit ratio The total investment to total deposit of HBL is higher than EBL. It shows the HBL is mobilizing its funds on investment in various securities efficiently. It can be said that HBL is more successful in utilizing its total deposit by investing in marketable securities.

Profitability ratios, return on loan and advances ratio of HBL is higher than that of EBL. It refers that HBL seems to be success to earn high profit on loan and advances. Total interest earned to total operating income ratio of HBL is lower than EBL. Total interest paid to total assets ratio of EBL is higher than HBL. It shows EBL has high interest

expenditure to total assets. It supports EBL to increase to interest paid to operating income. For risk position of bank, the average credit risk ratio of EBL is lower than HBL. EBL has efficiently used the total loan and advances than that of HBL. The average mean ratio of EBL is greater than that of HBL. It signifies that EBL has sound liquid fund to make immediate payment to the depositors. Similarly, in asset Risk Ratio, The mean of EBL is lower than HBL. It indicates HBL has high ratio of asset risk. Average Earning per share, dividend per share and average market price per share of EBL higher in comparison to HBL. This considered as better in security analyzing in order to make investment decision. In comparison to both bank trend of deposit and loan and advance of EBL high and trend of investment and profit of HBL is high. So both banks are equal in their liquidity management.

Bhusal (2011) has conducted research topic on "*Comparative Analysis of Liquidity Management of Joint Venture Banks in Nepal (With special reference to NABIL, EBL & NSBIL)"*. This research is conducted with the major objective of highlighting liquidity management. The main objective of this study is to examine and analyze liquidity position and its management in banks. The main objectives of the study are as follows:

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

The main conclusion and finding of the study are as follows

In the analysis of major components of liquidity cash and bank balance, total deposit, investment on Govt. Securities and current asset, all liquidity component of NABIL is fluctuating but EBL and NSBIL are increasing condition. The average amounts of total deposit are Rs 31717.19, Rs 25244.05 and Rs 19803.27 millions. Similarly, the average

amounts of current asset are Rs19569.323 million, 23572.96 million and Rs 18057.12 million. EBL has highest average amount in cash and bank balance where as NABIL has highest investment on Govt. securities and current asset.

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

The average investment on government treasury bills to total assets ratio of EBL is higher than NABIL and NSBIL. The return on loan and advance of NABIL, EBL and NSBIL have fluctuating trend. The return on total assets ratio of NABIL is higher than EBL and NSBIL. NABIL has high market price in every year. The higher PE ratio signify that price of NSBIL is traded in market in higher price. The investor of NSBIL are getting better price of stock because the share trading in high price. It is recommended to sell share of NSBIL and purchase share of EBL according to analysis of price earning ratio.
The correlation between deposits and loan and advances of NABIL, EBL and NSBIL are positive. All banks have significant relationship. The correlation between total deposits and investments of all banks are positive. NABIL and NSBIL have significant relationship and EBL has insignificant. The correlation between deposit and net profit of NABIL, EBL and NSBIL are positive. The relationship of NABIL, EBL and NSBIL is significant. The trend of total deposit and loan and advance of NABIL, EBL and NABIL forecasted increasing trend. Increment trend of NABIL is higher, EBL has moderate and NSBIL has lower. The Trend line of current asset of NABIL, EBL and NSBIL banks forecasted increasing. The rate of increment of current asset for EBL seems to be higher and aggressive than NSBIL and NABIL. Similarly, The Trend of net profit of NABIL,

EBL and NSBIL forecasted increasing trend. The increment of Net profit of NABIL and EBL is aggressive rather than NSBIL. In conclusion, NABIL and EBL are doing better in order to generate net profit but increment of NSBIL is little lower.

Magar (2012) has conducted a thesis topic on "*Comparative Study on Liquidity Mobilization of Bank of Kathmandu Limited and Everest Bank Limited*". The major objective of this study is to examine and analyze liquidity mobilization and its management of commercial banks. The main objectives of the study are as follows:

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

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

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

Research Gap

There are various researchers conduct on lending practice, liquidity analysis, credit policy, financial performance and credit management of various commercial banks. Some researches are found on liquidity mobilization. The past researcher has measuring on liquidity mobilization of bank have been focused on the limited ratios, which are incapable of solving the problems. In this research various ratio are systematically analyzed and generalized. The ratios are categorized according to nature. Here in this research all ratios are categorized according to their area and nature. This research comparative study on liquidity mobilization of Bank of Kathmandu and Everest Bank Ltd. done by measuring various ratios, trend analysis and various statistical tools as well and financial tools. Since the researcher have used data only five fiscal year but all the data are current and fact. This study tries to show liquidity mobilization by applying and analyzing various financial tools like liquidity ratio, asset management ratio, profitability ratio and other ratio as well as different statistical tools like average mean, coefficient of correlation and trend analysis. Probably this will be the appropriate research in the area of liquidity management of Bank and financial institutions. So this research is helpful and beneficial to all concern research worker, student, banker, investor and stakeholder.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Introduction

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

3.2 Research Design

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

3.3 Population and Sample

There are thirty commercial banks operating present in Nepal. All the commercial banks of Nepal are considered as the population. It is not possible the study all the data related with all 30 commercial banks because of the limited time period and showed also taken in to consideration of the partial fulfillment of the Master’s Degree. Currently aggregate 30 commercial banks are running in Nepal. They all 30 Commercial bank are taken as population. Thus two commercial banks i.e. BOK and EBL have been selected as sample for the present study.

3.4 Nature and Sources of Data

The research is based on secondary source of data. All the adequate data are collected from secondary sources. This refers to data that are already used and gathered by others. Secondary data are mostly used for this research purpose. Therefore, the major sources of secondary data are Annual Report of concern Bank and websites, NRB directives, thesis of Central Library of T.U. and Library of Shanker Dev Campus.

3.5 Data Collecting Procedures

The annual reports of the concerned banks were obtained from their head office and their websites. The main sources of data are annual report of concern financial institute. NRB publication, such as Banking and Financial Statistics, Economic Reports, Annual Reports of concern bank etc. Besides, a details review materials are collected from the library of Shanker Dev Campus and central library of T.U.

3.6 Tools and Techniques used

In this study, various financial and statistical tools have been used to achieve the objective of the study. According to the pattern of data available, the analysis of data will be done. The various tools applied in this study have been briefly presented as under:

- Financial tools
- Statistical tools

3.6.1 Financial Tools

Here the liquidity mobilization is analyzed through the use of two important tools. The financial tool is one of the most important tool, which includes ratio analysis and the other one financial statement analysis have been used in this study. Financial tools are used to examine the financial strength and weakness of bank. Although there are many financial ratios, only selected ratios are used in this study.

3.6.2 Analysis of Financial Rations

The techniques of ratio analysis in of considerable significance in studying the financial stability, liquidity, profitability and the quality of management of the business and industrial concerns, the important ratios that are studied for this purpose are given below.

3.6.3 Ratio Analysis

Ratio analysis is a technique of analysis and interpretation of financial statement. To evaluate the performances of an organization by creating the ratios from the figure of different accounts consisting in balance sheet and income statement is known as ratio analysis. Five types of ratios have been analyzed in this study, which are related to fund mobilization of the banks. They are presented below:

A. Liquidity Ratio

Liquidity ratio measures the ability of the firm to meet its current obligations. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Liquidity provides honor strength health and prosperity to an organization. It is extremely essential for an organization to meet its obligations as they become due. A firm should ensure that it has not lack of liquidity and also that it is not too much highly liquid.

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

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

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

ii) Cash and Bank Balance to Total Deposits Ratio: - Cash and bank balance is said to be first line defense of every bank. The ratio between the cash and bank balance and total deposit measures the ability of a bank to meet the unanticipated call on all types of deposit. Higher the ratio greater will be the ability to meet the sudden demand of deposit.

But every ratio is not desirable since bank has to pay interest on deposit. This also maximizes the cost of fund to the bank.

$$\textit{Cash and bank balance to total deposit ratio} = \frac{\textit{Cash and Bank Balance}}{\textit{Total Deposit}}$$

Where,

Cash and bank balance is composed up of cash on hand including foreign cheques and other cash item; balance with domestic banks and aboard. Deposits include current, saving, fixed money at short call notice and other types of deposits.

iii) Cash and Bank Balance to Current Assets Ratio: - This ratio shows the bank's liquidity capacity on the basis of cash and bank balance that is the most liquid assets. High the ratio indicates the bank's ability to meet the daily cash requirements of their customer deposits and vice versa. But the high ratio is not preferred as the bank has to pay more interest on deposit and will increase the cost of fund. Low ratio is also very dangerous, as the bank may not be able to make the payment against the cheques presented by the customers. We have,

$$\textit{Cash and bank balance to current assets ratio} \ \mathrm{X}\frac{\textit{Cash and Bank Balance}}{\textit{Current Assets}}$$

iv) Investment on Government Securities to Current Assets Ratio: - This ratio is used to find out the percentage of current assets invested on government securities, treasury bills and development bonds. We can find out as:

$$\textit{Investment on Govt. securities Current Assets Ratio}\,\mathrm{X}\frac{\textit{investment on Govt securities}}{\textit{Current Asset}}$$

Where**,**

Investment on Government Securities involves treasury bills and development bonds etc.

B. Assets Management Ratio:

A set of ratio which measure how efficiently a firm is managing its assets and whether or not the level of those assets is properly related to the level of operation. In this study this ratio is used to indicate how effectively the selected banks have arranged and invest their limited resources. The assets management ratios measure how effectively the firm is

managing its assets. These ratios are designed to answer this question; does the total amount of each type of assets as reported on the balance sheet seem reasonable or not. If a firm has excessive investments in assets, then its capital cost will be unduly high and its stock price will be suffer.

i) Loan and Advances to Total Deposits Ratio: - This ratio is calculated to find out how successfully the selected banks are utilizing their collections or deposits on loan and advances for the purpose of earning profit. We have,

$$\textit{Loan and Advances to Total Deposits Ratio} \, \mathrm{X} \frac{\textit{Loan and Advances}}{\textit{Total Deposits}}$$

ii) Total Investment to Total Deposits Ratio: - Investment is one of the major sources of earning profit. It shows how properly firm's deposit has been invested on government securities and shares and debentures of other companies.

$$\textit{Total Investment to Total Deposits Ratio} \; \mathrm{X} \frac{\textit{Total Investment}}{\textit{Total Deposits}}$$

iii) Loan and Advances to Total Working Fund Ratio: - This ratio shows the ability of selected banks in terms of earning high profit from loan and advances. Loan and advances to working fund ratio can be calculated by dividing loan and advances amount by total working fund.

$$\textit{Loan and Advances to Total Working Fund Ratio} \, \mathrm{X} \frac{\textit{Loan and Advance}}{\textit{Total Working Fund}}$$

iv) Investment on Government Securities to Total Working Fund Ratio: - Investment on government securities to working fund ratio shows how much part of total investment is there on government securities in percentage, it is calculated for this purpose by following formula:

$$\textit{Investment on Govt. Securities to TWF Ratio} \; \mathrm{X} \frac{\textit{Investmenton Govt. Securities}}{\textit{Total Working Fund}}$$

C. Profitability Ratio:

This ratio is related to profit of the banks is essential for the survival of the bank, so it is regarded as the engine that drives the banks and indicates economics progress. It calculated to measure the overall efficiency of the banks.

i) Return on Loan and Advances Ratio: - Return on loan and advances ratio shows how efficiently the banks have utilized their resources to earn good return from provided loan and advances. This ratio is computed as,

$$\textit{Return on Loan and Advances Ratio} \ \mathrm{X}\frac{\textit{Net Profit / Loss}}{\textit{Loan and Advances}}$$

ii) Return on Total Working Fund Ratio: - Return on total working fund ratio measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the bank's working fund is well managed and efficiently utilized. Maximizing taxes, this in the legal options available will also improve the return. We have,

$$\textit{Return on Total Working Fund Ratio} \ \mathrm{X}\frac{\textit{Net Profit}}{\textit{Total Working Fund}}$$

iii) Total Interest Earned to Total Working Fund Ratio: - This ratio reflects the extent to which the banks are successful in mobilizing these total assets to acquire income as interest. This ratio actually reveals the earning capacity of commercial banks by mobilizing its working fund. Higher the ratio higher will be the income as interest. We have,

$$\textit{Total Interest Earned to TWF Ratio}\ \mathrm{X}\frac{\textit{Total Interest Earned}}{\textit{Total Working Fund}}$$

iv) Total Interest paid to Total working Fund Ratio: - This ratio measures the percentage of total interest expenses on total working fund and vice-versa. This ratio is calculated as,

$$\textit{Total Interest paid to Total Working Fund Ratio} \; X \frac{\textit{Total Interest Paid}}{\textit{Total Working Fund}}$$

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

$$\textit{Credit Risk Ratio} = \frac{\textit{Total Investment} \; \Gamma \; \textit{Loan and Advances}}{\textit{Total Assets}}$$

3.7 Statistical Tools

Under this heading some statistical tool such as coefficient of correlation analysis between different variables, trend analysis of deposit, loan and advances, net profit and EPS are used to achieve the objective of the study.

3.7.1 Average Mean

An average is a single value related from a group of values to represent them in someway, a value, which is supposed to stand for whole group of which it is a part, as typical of all the values in the group. There are various types of averages. Arithmetic mean (AM, Simple & Weighted), median, mode, geometric mean, harmonic mean are the major types of averages.

Mathematically:

Arithmetic Mean (AM) is given by,

$$\overline{X} \; X \frac{X}{n}$$

Where, $\overline{X}$ = Arithmetic mean

$\sum x$ = Sum of all the values of the variable X

n = Number of observations

3.7.2 Standard deviation

The standard deviation measures the absolute dispersion. It is said that higher value of standard deviation the higher the variability and vice versa. Karl Pearson introduced the concept of standard deviation in 1823 A. D. and this is denoted by the small Greek letter (pronounced sigma) the formula to calculate the standard deviation is given below:

$$\pm \text{X}\sqrt{\frac{x^2}{N}}$$

Where, x = $\int X \text{ Z} \overline{X} /$

3.7.3 Coefficient of Variation

The coefficient of variation reflects the relation between standard deviation and mean. The relative measure of dispersion based on the standard deviations known as coefficient of variation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the CV. It is used for comparing variability of two distributions; the CV is defined as,

$$CV = \frac{\pm}{\overline{X}} \varepsilon \ 100$$

Greater the CV, the more variable or conversely less consistent, less uniform, less stainable and homogenous than the consistent more uniform, more stable and homogenous. This nature of CV uses that actual size of working capital.

3.7.4 Coefficient of correlation (r)

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is liner related to another. Coefficient of correlation is the measurement of the degree of relationship between two casually related sets of figure whether positive or negative. Its values lie somewhere ranging between - 1 to +1. If the both variables are constantly changing in the similar direction, the value of coefficient will be –1, two variables take place in opposite defection. The correlation is said to be perfect negative. In this study, simple correlation is use to examine the relationship of different factors

with working capital and other variable.

$$\textit{Coefficient of correlation (r)}\ \mathrm{X}\frac{\textit{Coveriance of } X \ \& \ Y}{\pm_X \pm_Y}$$

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

3.7.5 Trend Analysis

The least square method to trend analysis has been used in measuring the trend analysis. This method is widely used in practice. The straight line trend of a series of data is represented by the following formula.

$Y = a + bx$

Here,

Y is the dependent variable, a is y intercept or value of y when x=0, b is the slope of the trend line or amount of change that comes in y for a unit change in x.

Where,

Y = Dependent variable

x = Independent variable

a = Y – intercept

b = Slope of the trend line

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

Presentation and analysis of data is the main body of the study. In this chapter data collected are analyzed and interpreted as per the stated methodology in the previous chapter. The main source of data is secondary data. Here study made on liquidity mobilization of Bank of Katmandu Limited and Everest Bank Limited. The analyses are shown in different tables and diagrams to make the study simple and understandable.

4.1 Financial Analysis

Financials ratios related to the liquidity mobilization are presented to evaluate and analyze the performance of BOK and EBL. Some important financial ratios are calculated in the point of view of liquidity mobilization. The ratios are designed and calculated to highlight the relationship between financial items and figures. It is a kind of mathematical procedure that shows the relationship where one item is divided by another.

4.1.1 Ratio Analysis

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

4.1.1.1 Liquidity Ratio

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

A. Analysis of Current Ratio

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

Table No. 4.1

Current Assets to Current Liability

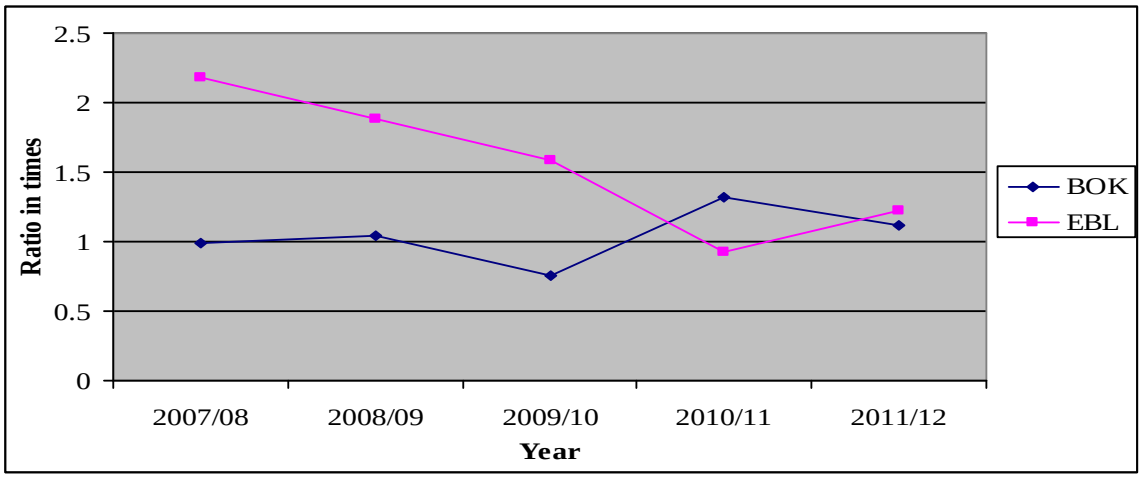
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Current Assets	Current Liabilities	Ratio in Times	Current Assets	Current Liabilities	Ratio in Times
2007/08	11684.67	11761.25	0.993	24761.6	11354.8	2.18
2008/09	14435.32	13832.9	1.044	32425.4	17287.9	1.88
2009/10	15767.92	20970.55	0.752	35052.2	22237.5	1.58
2010/11	24882.06	18839.49	1.321	25229.01	27273.6	0.93
2011/12	32805.29	29273.74	1.121	33365.6	27367.9	1.22
Mean			1.046			1.558
S.d.			0.2065			0.499
C.V.			0.197			0.321

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.1

Current Assets to Current Liability



The table and figure no 4.1 show the current ratio of BOK and EBL banks during the study period. The current ratio of BOK and EBL has a fluctuating trend. The highest

current ratio of BOK is 1.321 in F/Y 2010/11 and lower ratio is 0.752 times in F/Y 2009/10. Similarly highest current ratio of EBL is 2018 in F/Y 2007/08 and lowest ratio is 0.93 in 2011/12. The average current ratio of BOK and EBL are 1.046 and 1.558. The average mean liquidity ratio of EBL is higher than BOK. Liquidity position of EBL is better than BOK. So, EBL is sound in meeting short-term obligation than BOK. The S. D. and C.V. of BOK is less than EBL. It can be said that current ratio of BOK is more consistent than that of EBL. Lastly, from the above analysis it is known that these two banks have good liquidity position because the ratio is higher than standard ratio 1:1. But EBL has sound liquidity position. Generally, banks require more liquid assets as compared to current liabilities in order to provide better banking service but these two banks have lower liquidity ratio than standard ratio.

B) Cash and Bank Balance to Total Deposit Ratio

This indicates the bank ability to meet their daily requirement of depositors. Higher ratio shows the greater ability to meet customer demands on their deposits. Following table shows cash and bank balance to total deposit of BOK and EBL during the study period.

Table No. 4.2

Cash and Bank Balance to Total Deposit Ratio

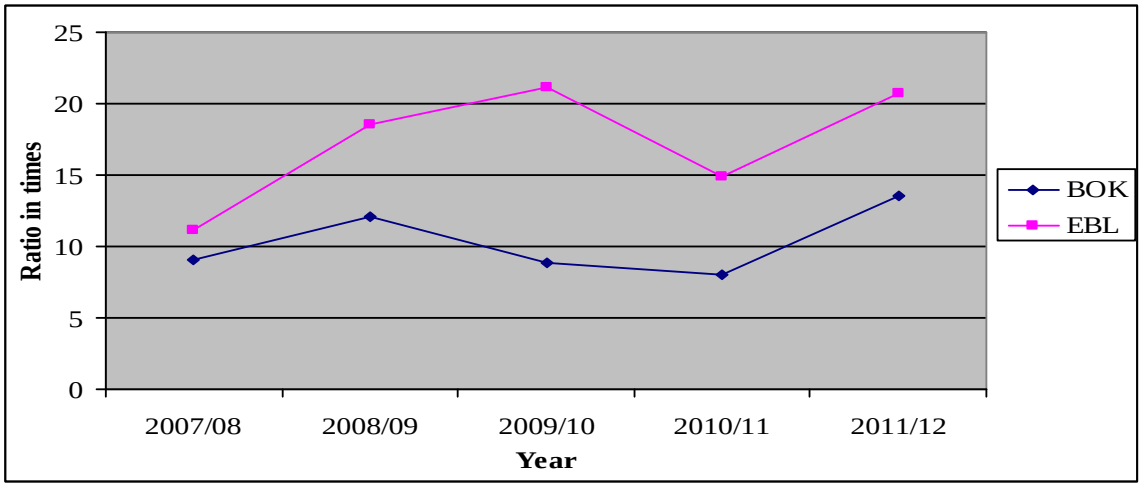
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Cash and Bank Balance	Total Deposit	Ratio	Cash and Bank Balance	Total Deposit	Ratio
2007/08	1440.47	15833.74	9.09	2667.97	23976.3	11.13
2008/09	2182.11	18083.98	12.07	6164.37	33322.95	18.50
2009/10	1798.37	20315.83	8.85	7818.81	36932.31	21.17
2010/11	1678.93	21018.42	7.99	6122.86	41127.91	14.89
2011/12	3382.71	24991.45	13.53	10363.31	50006.1	20.72
Mean			10.307			17.282
S.d.			2.3693			4.2423
C.V.			0.2299			0.2455

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.2

Cash and Bank Balance to Total Deposit Ratio



The table and figure 4.2 revel that the cash and bank balance to total deposit ratio of BOK and EBL are in fluctuating trend. The highest ratio of BOK is 13.53 percent in FY 2011/12 and lowest is 7.99 percent in F/Y 2010/11. Similarly, the highest ratio of EBL is 21.17 percent in FY 2009/10 and lowest ratio is 11.13 percent in 2007/08. The average mean ratio of BOK and EBL are 10.307 percent and 17.2872 percent respectively. The average ratio of EBL has higher than the BOK, which shows its greater ability to pay depositors money as they want. Similarly, the coefficient of variation of BOK is 0.2299 times and EBL is 0.2455 times. The C.V. of BOK is lower than the EBL which indicate more consistency in its ratio.

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

C) Cash and Bank Balance to Current Assets Ratio

Cash and Bank Balance are the most liquid or quick assets. Cash and bank balance to current assets ratio represents the liquidity capacity of the banks as per cash and bank

balance. Higher the ratios, better the ability of the banks to meet the daily cash requirement of their customers. Following table shows the cash and bank balance to current assets of BOK and EBL.

Table No. 4.3

Cash and Bank Balance to Current Asset Ratio

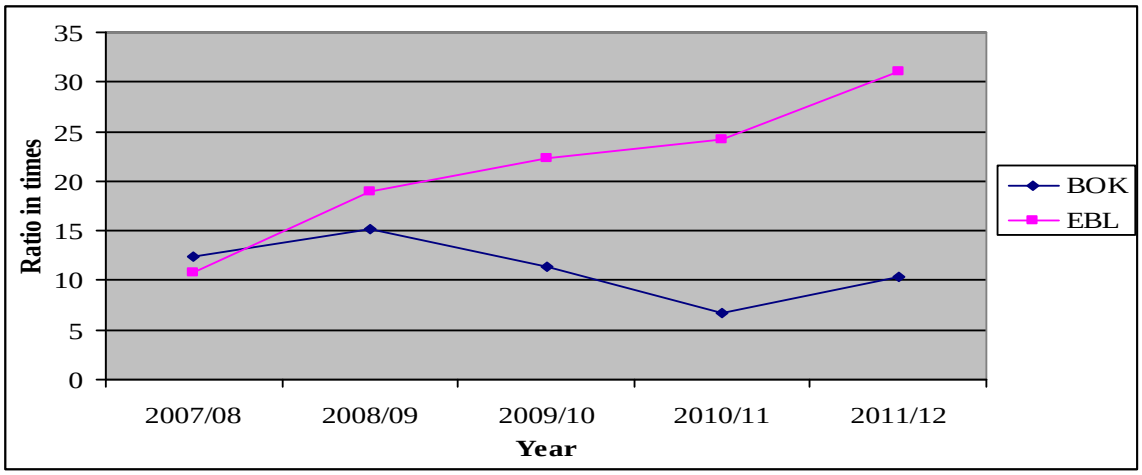
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Cash and Bank Balance	Current Asset	Ratio	Cash and Bank Balance	Current Asset	Ratio
2007/08	1440.47	11684.67	12.33	2667.97	24761.6	10.77
2008/09	2182.11	14435.32	15.12	6164.37	32425.4	19.01
2009/10	1798.37	15767.92	11.40	7818.81	35052.2	22.31
2010/11	1678.93	24882.06	6.75	6122.86	25229.01	24.27
2011/12	3382.71	32805.29	10.31	10363.31	33365.6	31.06
Mean			11.182			21.484
S.d.			3.0526			7.4339
C.V.			0.273			0.3460

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.3

Cash and Bank Balance to Current Asset Ratio



The table and figure 4.3 shows the cash and bank balance to current assets ratio of BOK and EBL have fluctuating form during study period. The highest ratio of BOK is 15.12

percent in F/Y 2008/09 and lowest ratio is 6.75 in F/Y 2010/11. Similarly the highest ratio of EBL is 31.06 percent in F/Y 2011/12 and lowest ratio is 10.77% in F/Y 2007/08. The mean ratio of BOK and EBL is 11.182 percent and 21.484 percent respectively. The higher mean ratio shows that EBL's liquidity position is better than that of BOK. Moreover, the C.V. of EBL is higher than BOK. The lower C.V. of BOK indicates that it has more consistency in the ratios compared to EBL. Regarding the above analysis, it can be concluded that EBL has a better ability to meet daily cash requirements of their customers.

D) Investment on Government Securities to Current Assets Ratio

This ratio shows investment on different government securities. More or less, each commercial bank is interested to invest their collected funds on different securities issued by government at different times to utilize their excess funds and for other purpose. Government securities are the more secured investment alternatives. These securities are also called risk less investment but return generated is lesser than others risky assets.

Table No. 4.4

Investment on Government Securities to Current Assets Ratio

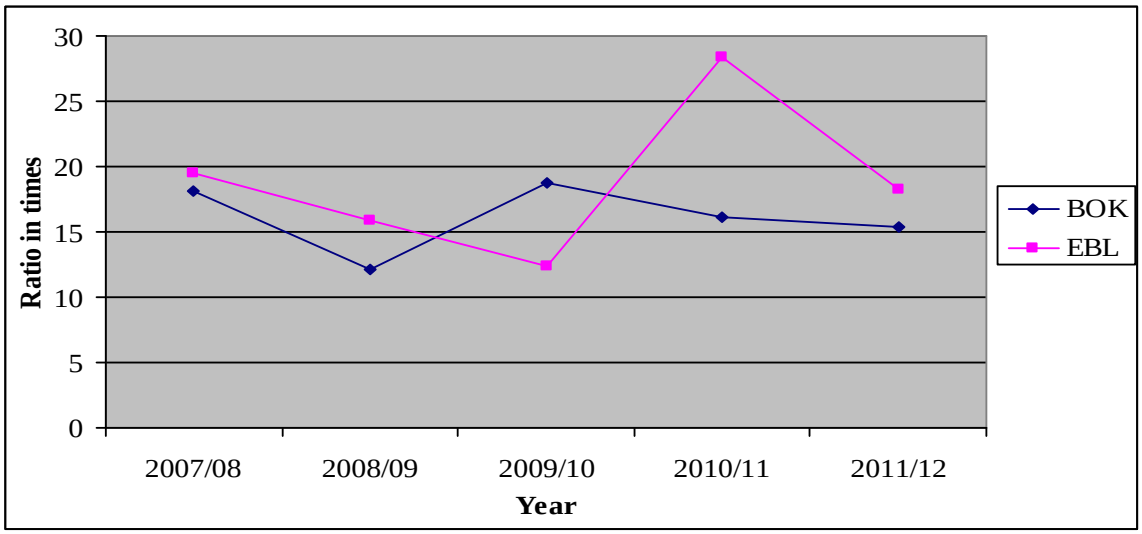
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Investment on Government Securities	Current Assets	Ratio	Investment on Government Securities	Current Assets	Ratio
2007/08	2113.22	11684.67	18.08	4821.6	24761.6	19.47
2008/09	1744.98	14435.32	12.09	5146.05	32425.4	15.87
2009/10	2954.93	15767.92	18.74	4354.35	35052.2	12.42
2010/11	4002.14	24882.06	16.08	7145.02	25229.01	28.32
2011/12	5037.63	32805.29	15.36	6068.88	33365.6	18.19
Mean			16.07			18.854
S.d.			2.6227			5.9314
C.V.			0.1632			0.3146

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.4

Investment on Government Securities to Current Assets Ratio



The table and figure 4.4 shows investment on government securities to current assets ratio of BOK and EBL. Both Banks have fluctuating ratios. The table show the highest ratio of BOK is 18.74 percent in FY 2009/10 and lowest is 12.09 percent in FY 2008/09. In the same way, the highest ratio of EBL is 28.32 percent in FY 2010/11 and lowest ratio is 12.42 percent in FY 2009/10 respectively.

The average mean ratio BOK and EBL are 16.07 and 18.854 percent. The mean ratio of BOK is lower than the mean ratio of EBL. It means EBL has invested more money in risk free assets than BOK has. In another words BOK has emphasized more on loan and advances and other short term investment than investment in govt. securities. For minimization of investment risk, BOK should divert its investment in govt. securities. Similarly, the C.V. of BOK has lower than EBL. The lower C.V. of BOK shows the more consistency in the ratios with compare to EBL.

4.1.1.2 Assets Management Ratio

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

A) Loan and Advance to Total Deposit Ratio

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

Table No. 4.5

Loan and Advance to Total Deposit Ratio

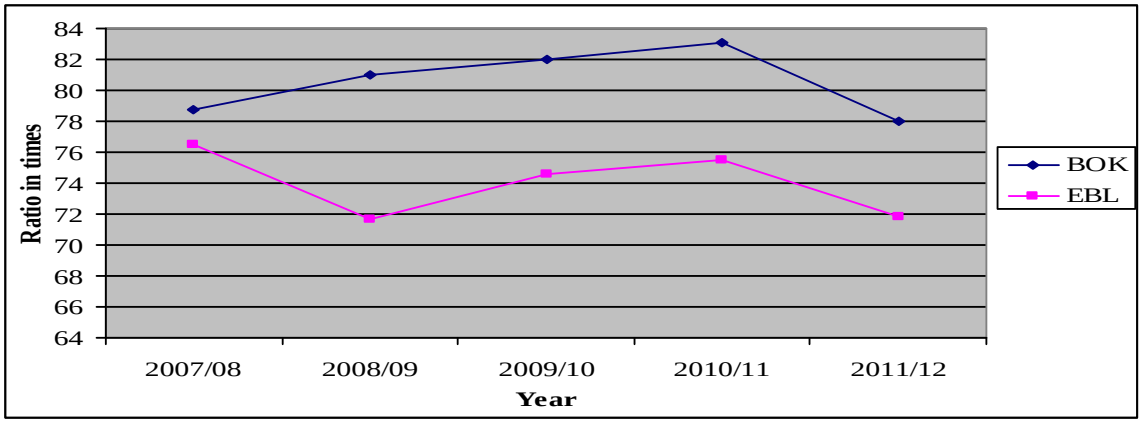
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Loan and Advance	Total Deposit	Ratio	Loan and Advance	Total Deposit	Ratio
2007/08	12462.64	15833.74	78.77	18339.09	23976.3	76.488
2008/09	14647.3	18083.98	80.99	23884.67	33322.95	71.676
2009/10	16664.93	20315.83	82.03	27556.36	36932.31	74.613
2010/11	17468.19	21018.42	83.11	31057.69	41127.91	75.515
2011/12	18813.94	24119.45	78.003	35910.97	50006.1	71.813
Mean			80.581			74.021
S.d.			2.1557			2.1819
C.V.			0.0267			0.0295

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.5

Loan and Advance to Total Deposit Ratio



The table and figure 4.5 shows the loan and advances to total deposit ratio of BOK and EBL. The ratio of BOK has c increasing trend beside last year. The highest ratio of BOK is 83.11% in F/Y 2010/11 and lowest ratio is 78.77% in F/Y 2007/08. Similarly highest ratio of EBL is 76.488% in F/Y 2007/08 and lowest ratio is 71.676% in F/Y 2008/09. The mean ratio of BOK and EBL are 80.581% and 74.021% respectively. So BOK has higher ratio than that of EBL. It indicates the better mobilization of deposit by BOK as loan and advance. It reveals that the deposit of BOK is quickly converted in to loan and advances to earn income. According to NRB directives less than 80% of loan and advances to total deposit ratio is required to enable better mobilization of collected deposit. The C.V of EBL is higher of than BOK which indicates more inconsistency in ratios with compare to BOK. So performance of EBL seems to lower in aspect of loan and advance.

B) Total Investment to Total Deposit Ratio

This ratio measures how successfully and efficiently the banks are mobilizing their funds at investment in various securities. This ratio of BOK and EBL are calculated and presentation below.

Table No. 4.6

Total Investment to Total Deposit Ratio

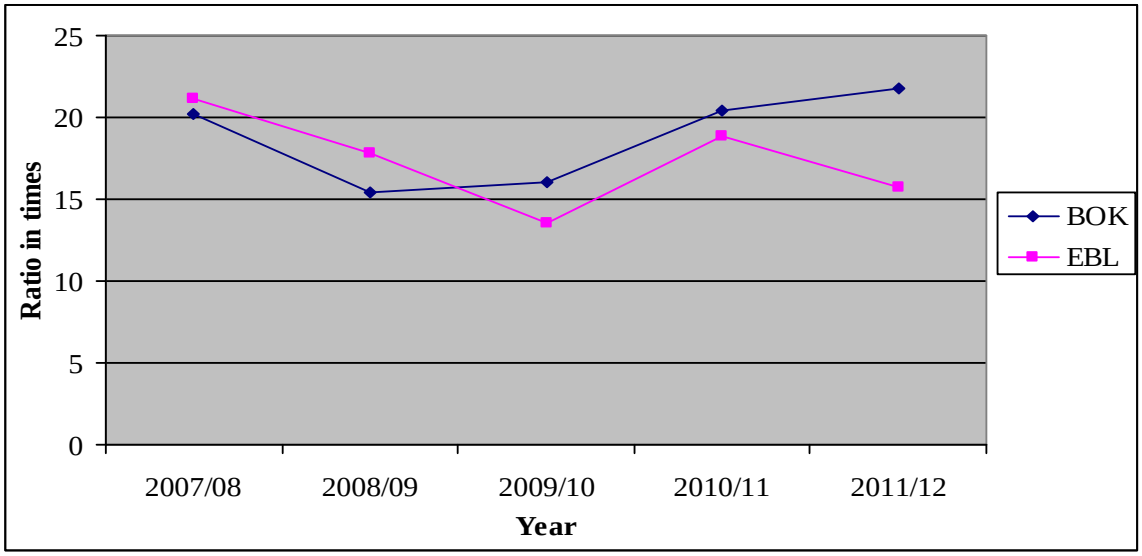
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Total Investment	Total Deposit	Ratio	Total Investment	Total Deposit	Ratio
2007/08	3204.07	15833.74	20.24	5059.56	23976.3	21.10
2008/09	2783.6	18083.98	15.39	5948.48	33322.95	17.85
2009/10	3269.2	20315.83	16.09	5008.31	36932.31	13.56
2010/11	4286.6	21018.42	20.39	7743.93	41127.91	18.83
2011/12	5246.68	24119.45	21.75	7863.63	50006.1	15.73
Mean			18.773			17.414
S.d.			2.8412			2.8927
C.V.			0.1514			0.1661

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.6

Total Investment to Total Deposit Ratio



The table and figure 4.6 shows that total investment to total deposit ratio of BOK and EBL. Both the banks have fluctuating trend in total investment to total deposit ratio. The highest ratio of BOK is 21.75 percent in FY 2011/12 and lowest ratio is 15.39 percent in FY 2008/09 in the same way the highest ratio of EBL is 21.10% percent in FY 2007/08 and lowest ratio is 13.56 percent in FY 2009/10. Investment volume of BOK is decreasing and increasing at last where as EBL has decreasing at last. The mean ratio of the BOK and EBL are 18.773% and 17.414% respectively, which shows that BOK has little higher ratio than EBL. It signifies that BOK has more allocated its deposit in investment portfolio. The C.V. of EBL is higher than BOK which indicates more inconsistency ratio.

C) Loan and Advances to Total Working fund Ratio

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

Table No. 4.7

Loan and Advances to Total Assets Ratio

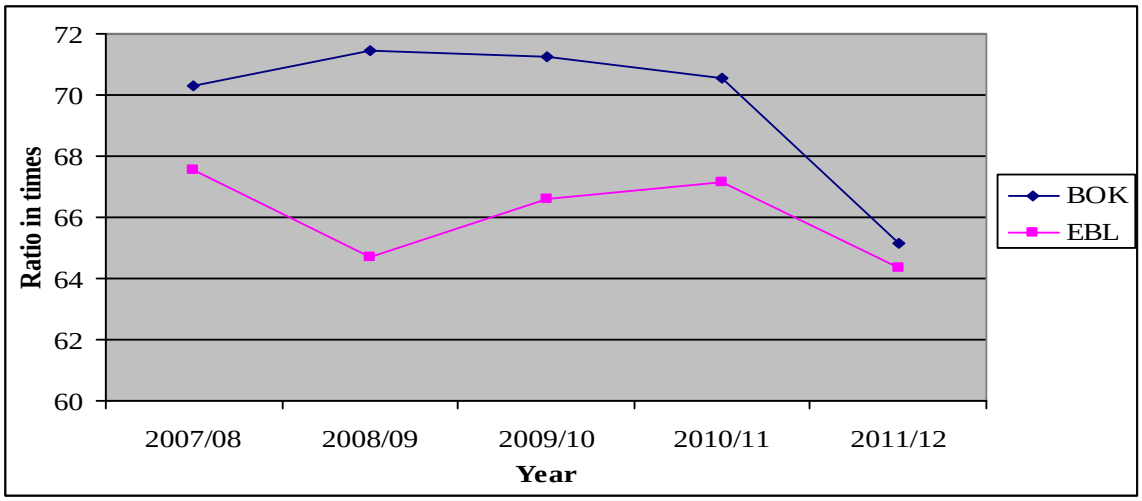
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Loan and Advances	Total Assets	Ratio	Loan and Advances	Total Assets	Ratio
2007/08	12462.64	17721.93	70.32	18339.09	27149.34	67.55
2008/09	14647.3	20496	71.46	23884.67	36916.85	64.70
2009/10	16664.93	23396.19	71.23	27556.36	41382.76	66.59
2010/11	17468.19	24757.75	70.56	31057.69	46236.21	67.17
2011/12	18813.94	28881.99	65.14	35910.97	55813.13	64.34
Mean			69.742			66.07
S.d.			2.614			1.461
C.V.			0.0375			0.0221

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.7

Loan and Advances to Total Assets Ratio



The table and figure 4.7 show the loan and advances to total assets ratio of BOK and EBL. Loan and advances to total assets of both BOK and EBL have fluctuating during the study period. The highest ratio of BOK is 71.46% in F/Y 2008/09 and lowest is

65.14% in F/Y 2011/12. Similarly the highest ratio of EBL is 67.55% in F/Y 2007/08 and lowest is 64.34% in F/Y 2011/12. The mean ratio of BOK and EBL are 69.742% and 66.07% respectively. So BOK has higher mean ratio than EBL. It reveals that in total assets of BOK has high proportion as loan and advances. BOK has utilized its total assets more efficiently in the form of loan and advances. The lower C.V. of EBL states that it has more uniformity in these ratios than BOK throughout the study period. Both S.D. and C.V. of BOK has higher than EBL which indicate inconsistency in its ratio.

D) Investment on Government Securities to Total Assets ratio

Investment on government securities is a less risky investment. Investment on government securities to total assets ratio measures how successfully selected banks have applied their total assets on various forms of government securities for profit maximization and risk minimization. Higher the ratio, the better the position of fund mobilization into investment on government securities and vice-versa.

Table No. 4.8

Investment on Government Securities to Total Assets ratio

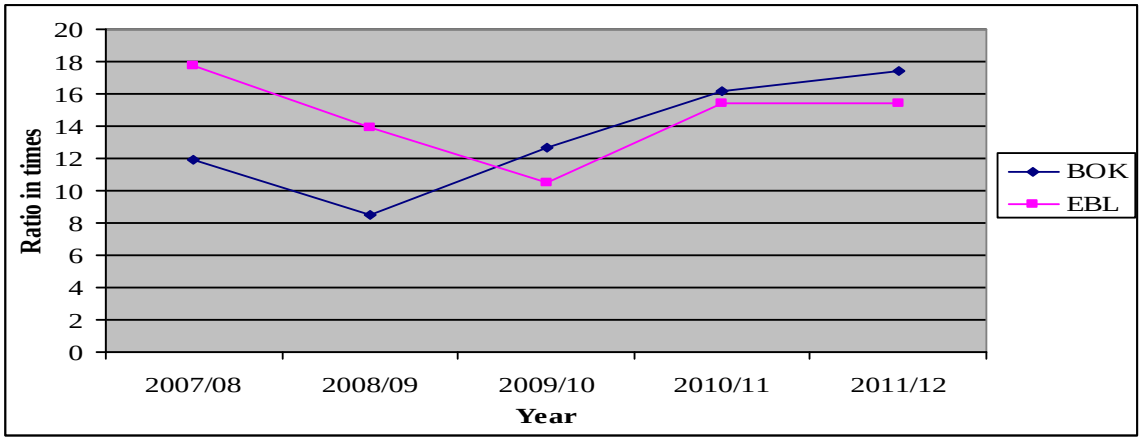
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Investment on Government Securities	Total Assets	Ratio	Investment on Government Securities	Total Assets	Ratio
2007/08	2113.22	17721.93	11.92	4821.6	27149.34	17.76
2008/09	1744.98	20496	8.51	5146.05	36916.85	13.94
2009/10	2954.93	23396.19	12.63	4354.35	41382.76	10.52
2010/11	4002.14	24757.75	16.16	7145.02	46236.21	15.45
	5037.63	28881.99	17.44	6068.88	55813.13	15.45
Mean			13.332			14.624
S.d.			3.5571			2.6689
C.V.			0.2668			0.1825

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.8

Investment on Government Securities to Total Assets ratio



The table and figure 4.8 shows that the investment on government treasury bills to total assets of BOK and EBL. The both banks BOK and EBL have fluctuating trend. The highest ratio of BOK is 17.44% in 2011/12 and the lowest ratio is 8.51% in 2008/09. Similarly the highest ratio of EBL is 17.76% and lowest ratio is 10.52% in 2009/10 respectively. The mean ratio of BOK and EBL are 13.332% and 14.6244% respectively. The average ratio of EBL has little higher than BOK. It means EBL has invested more assets in risk free assets than BOK. In another words BOK has emphasized more on loan and advances and other short-term investment than investment in govt. securities. There is more variability in the ratio of BOK. It shows that there is more inconsistency in the ratio of BOK during the study period, which is indicated by higher C.V. of BOK.

4.1.1.3 Profitability Ratio

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

A) Return on Loan and advances

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

Table No. 4.9

Return on Loan and advances

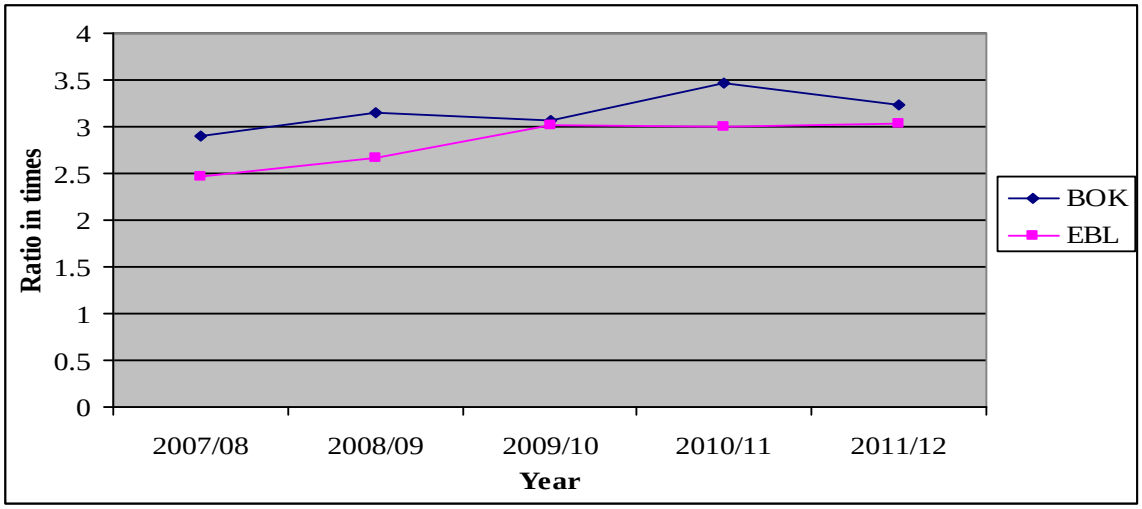
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Net Profit	Loan and Advances	Ratio	Net Profit	Loan and Advances	Ratio
2007/08	361.49	12462.64	2.90	451.22	18339.09	2.46
2008/09	461.73	14647.3	3.15	638.73	23884.67	2.67
2009/10	509.63	16664.93	3.06	831.77	27556.36	3.02
2010/11	605.15	17468.19	3.46	931.3	31057.69	3.00
2011/12	607.66	18813.94	3.23	1090.56	35910.97	3.04
Mean			3.16			2.838
S.d.			0.2077			0.2604
C.V.			0.0657			0.0917

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.9

Return on Loan and advances



The table and figure 4.9 show that return on loan and advances ratio of BOK and EBL. The ratio of BOK has an increasing whereas EBL fluctuating trend. The highest ratio of BOK is 3.46% in the year 2010/11 and lowest ratio is 2.90% in year 2007/08. The mean ratio is 3.16%. Similarly highest ratio of EBL is 3.04% in year 2011/12 and lowest ratio is 2.46% in 2007/08. The mean ratio of EBL is 2.838%. This both banks show the normal earning capacity in loan and advances and same earning capacity in form of loan and advances. The average ratio of BOK is higher than EBL. Which indicate that return from loan and advance of BOK is higher than EBL. It can be concluded that BOK has utilized the loan and advance for the profit generation in earning capacity. However both banks seem to have normal performance because return on loan and advances is less than five percent. Higher C.V. of EBL indicates inconsistency in its ratio.

B) Return on Total Assets

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

Table No. 4.10

Return on Total Assets Ratio

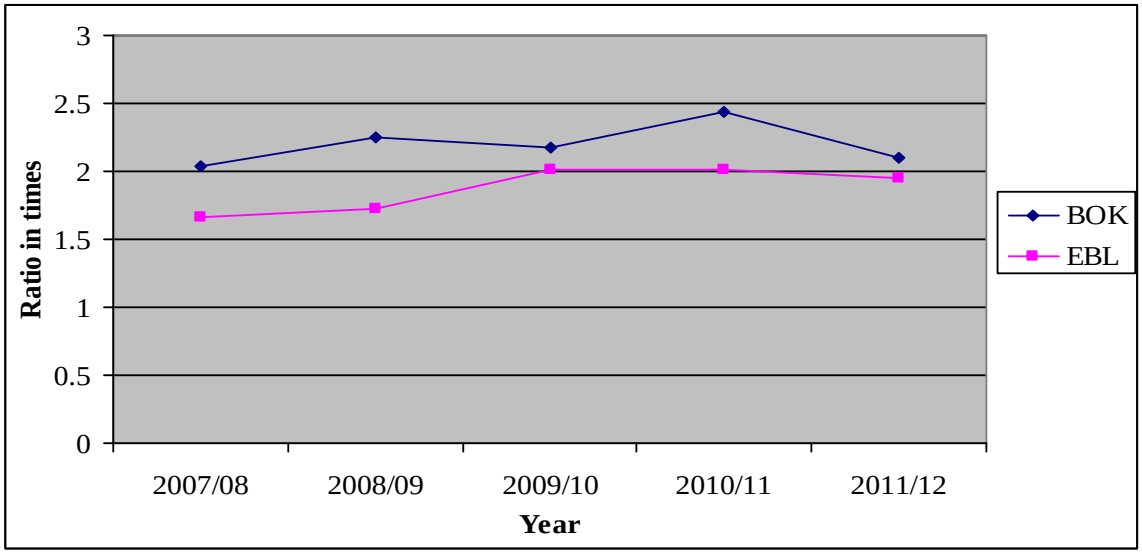
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Net Profit	Total Asset	Ratio	Net Profit	Total Asset	Ratio
2007/08	361.49	17721.93	2.04	451.22	27149.34	1.66
2008/09	461.73	20496	2.25	638.73	36916.85	1.73
2009/10	509.63	23396.19	2.18	831.77	41382.76	2.01
2010/11	605.15	24757.75	2.44	931.3	46236.21	2.014
2011/12	607.66	28881.99	2.10	1090.56	55813.13	1.95
Mean			2.202			1.874
S.d.			0.1550			0.1666
C.V.			0.0704			0.0889

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.10

Return on Total Assets Ratio



The table and figure 4.10 shows the return on total assets of BOK and EBL. Both banks have increasing trend of return on its total assets. The highest ratio of BOK is 2.44 in F/Y 2010/11 and lowest ratio is 2.04 in F/Y 2007/08. Similarly highest ratio of EBL is 2.014 in F/Y 2010/11 and lowest ratio is 1.66 in F/Y 2007/08. However, BOK seems successful in managing and utilizing the available assets in order to generate revenue since its average return on total assets is 2.202% which is higher than that of EBL of 1.874 percent. BOK has also higher ratio in each year than EBL. This indicates BOK has utilized more its total asset than EBL. Where as S.D. and C.V. of EBL has relatively high which indicate less uniformity in the ratios. So return from total asset of BOK is relatively better than EBL.

C) Return on Equity

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

Table No. 4.11

Return on Equity Ratio

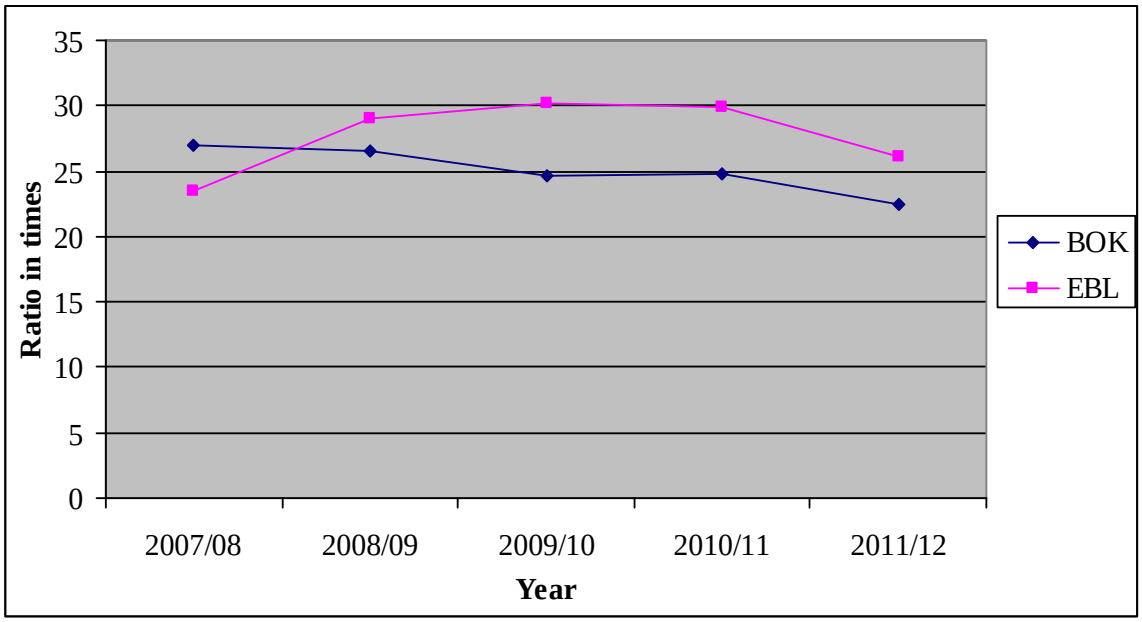
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Net Profit	Total Equity	Ratio	Net Profit	Total Equity	Ratio
2007/08	361.49	1342.07	26.93	451.22	1921.24	23.49
2008/09	461.73	1741.59	26.51	638.73	2203.62	28.99
2009/10	509.63	2073.53	24.58	831.77	2759.14	30.15
2010/11	605.15	2435.19	24.85	931.3	3113.55	29.91
2011/12	607.66	2700.84	22.50	1090.56	4177.3	26.11
Mean			25.074			27.73
S.d.			1.762			2.863
C.V.			0.0703			0.1033

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.11

Return on Equity Ratio



The table and figure 4.11 show return on equity ratio of BOK and EBL. Above data indicates that BOK has constant and EBL has fluctuating trend of return on equity ratio. The highest ratio of BOK is 26.93% in F/Y 2007/08 and lowest ratio is 22.50% in F/Y

2011/12. Similarly highest ratio of EBL is 30.15% in F/Y 2009/10 and lowest ratio is 23.49% in F/Y 2007/08. The average mean ratio of BOK and EBL are 25074 and 27.53 percent. The average mean ratio of EBL has higher mean ratio than BOK.

According to average mean ratio EBL is generating higher ROE in comparison with BOK. In brief, it signifies that the shareholders of EBL are getting higher return but in case of BOK, they are getting little lesser. It can be concluded that EBL has better utilized the equity for the profit generation. The ratio indicates EBL is stronger than BOK. EBL is relatively more inconsistent throughout the study period because its C.V is higher than BOK.

D) Interest Earned to Total Assets Ratio

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

Table No. 4.12

Interest Earned to Total Assets Ratio

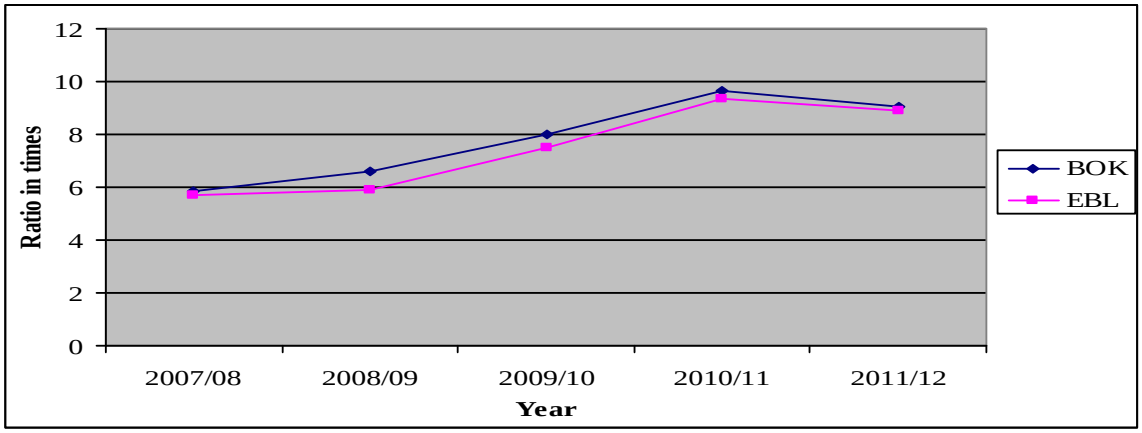
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Interest Earned	Total Assets	Ratio	Interest Earned	Total Assets	Ratio
2007/08	1034.16	17721.93	5.83	1548.66	27149.34	5.70
2008/09	1347.76	20496	6.58	2186.81	36916.85	5.92
2009/10	1870.85	23396.19	7.99	3102.45	41382.76	7.50
2010/11	2386.78	24757.75	9.64	4331.03	46236.21	9.37
2011/12	2620.89	28881.99	9.07	4959.99	55813.13	8.89
Mean			7.822			7.476
S.d.			1.6126			1.6705
C.V.			0.2061			0.2235

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.12

Interest Earned to Total Assets Ratio



The table and figure 4.12 show the increased total interest earned to total asset ratio of BOK and EBL. Both the banks have increasing total interest earned to total asset ratio beside last year during studied period. Which indicate both banks doing well in interest earning. The highest ratio of BOK is 9.64 percent and lowest ratio is 5.6.58 percent similarly highest ratio of EBL is 9.37 percent and lowest ratio is 5.70 percent. The average mean ratio of BOK and EBL are 7.822 and 7.476 percent respectively. The mean ratio of BOK is little more than that of EBL. The higher total assets and interest earned in BOK, it seems more conscious about managing its assets in order to earn more interest ratio. But EBL also following to BOK which is good form of performance. Moreover, BOK has higher uniformity in the ratios during the study period due to having lower C.V. than EBL. Anyway it can be concluded that both BOK and EBL has successfully mobilized their fund in interest generating assets due to increasing form of ratio of both banks.

E) Total Interest Earned To Total outside Assets Ratio

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

the ratio of total interest earned to total outside assets of BOK and EBL during the study period.

Table No. 4.13

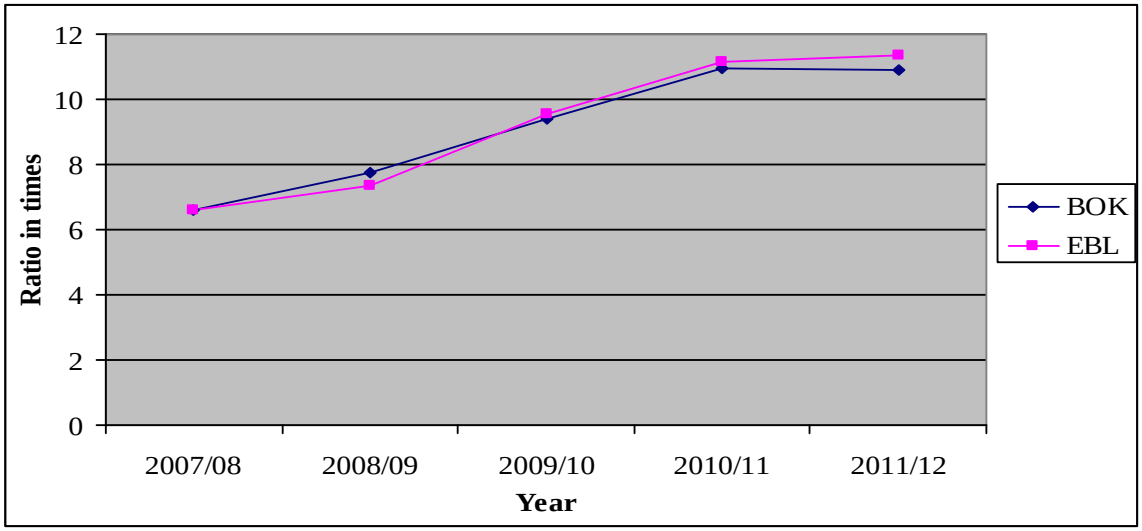
Total Interest Earned To Total outside Assets Ratio

Fiscal Year	BOK			EBL		
	Interest Earned	Total outside Assets	Ratio	Interest Earned	Total outside Assets	Ratio
2007/08	1034.16	15666.70	6.60	1548.66	23398.65	6.62
2008/09	1347.76	17430.90	7.73	2186.81	29833.15	7.33
2009/10	1870.85	19934.14	9.38	3102.45	32564.67	9.53
2010/11	2386.78	21754.79	10.97	4331.03	38801.62	11.16
2011/12	2620.89	24060.62	10.89	4959.99	43774.6	11.33
Mean			9.114			9.194
S.d.			1.9304			2.1587
C.V.			0.2118			0.2348

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.13

Total Interest Earned To Total outside Assets Ratio



The table and figure 4.13 shows the total interest earned to total outside assets ratio. The total interest earned to total outside assets ratio of both bank BOK and EBL are in increasing during the study period. BOK has highest ratio in the year 2010/11 with

10.97% and lowest in the years 2007/08 with 6.60%. Similarly, EBL has the highest ratio in the year 2011/12 with 11.33% and the lowest in the year 2007/08 with 6.62%. The mean ratio of BOK and EBL are 9.114% and 9.194% respectively. The average mean ration of EBL is little higher than BOK. Here EBL seems to have more efficiency in generating total interest through well utilizations of outside assets. So lending and investment of EBL is little better than BOK. The C.V. and S.D. of EBL is higher than BOK which indicates inconsistency in interest earned to total outside asset ratio of EBL.

F) Total interest earned to Total operating income Ratio

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

Table No. 4.14

Interest Earned to Operating Income Ratio

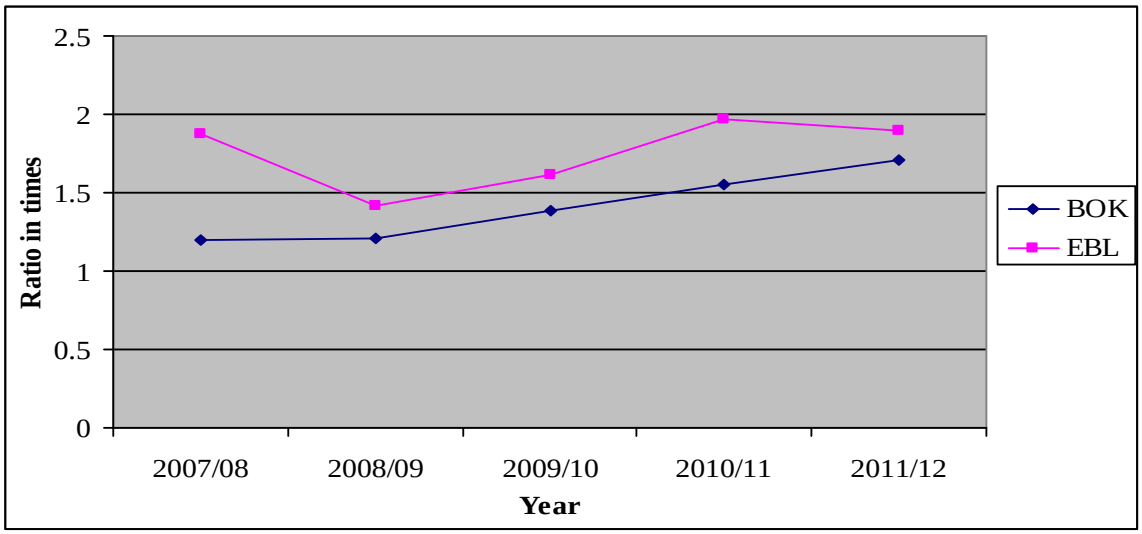
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Interest Earned	Operating Income	Ratio	Interest Earned	Operating Income	Ratio
2007/08	1034.16	862.96	1.20	1548.66	822.7	1.88
2008/09	1347.76	1114.82	1.21	2186.81	1544.97	1.42
2009/10	1870.85	1342.7	1.39	3102.45	1927.98	1.61
2010/11	2386.78	1538.32	1.55	4331.03	2192.94	1.97
2011/12	2620.89	1535.31	1.71	4959.99	2609.74	1.90
Mean			1.412			1.756
S.d.			0.2203			0.2324
C.V.			0.156			0.1324

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.14

Interest Earned to Operating Income Ratio



The table and figure 4.14 shows interest earned to operating income ratio of BOK and EBL. The BOK have increasing its ratio where as EBL has fluctuating its ratio during the study period. The highest ratio of BOK is 1.71 and lowest ratio is 1.20. Similarly highest ratio of EBL is 1.97 and lowest ratio is 1.42 times. The average mean ratio of BOK and EBL are 1.412 times and 1.756 times respectively. The average mean ratio of EBL is little higher than BOK, it indicates the high contribution in operating income made by lending and investing activities (core banking activity). BOK has little lower ratio, it indicates that high contribution in operating income is not made by lending and investing activities (core banking activity). High contribution in operating income made by lending and investing activities (core banking activity) may not good in long run but in short run it is not so bad. In overall, both banks have managed sound interest earned to operating income ratio. The C.V of BOK is higher than EBL, Which indicate the ratio of BOK is more inconsistency than EBL.

G) Total Interest Paid to Total Assets Ratio

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

Table No. 4.15

Interest Paid to Total Assets Ratio

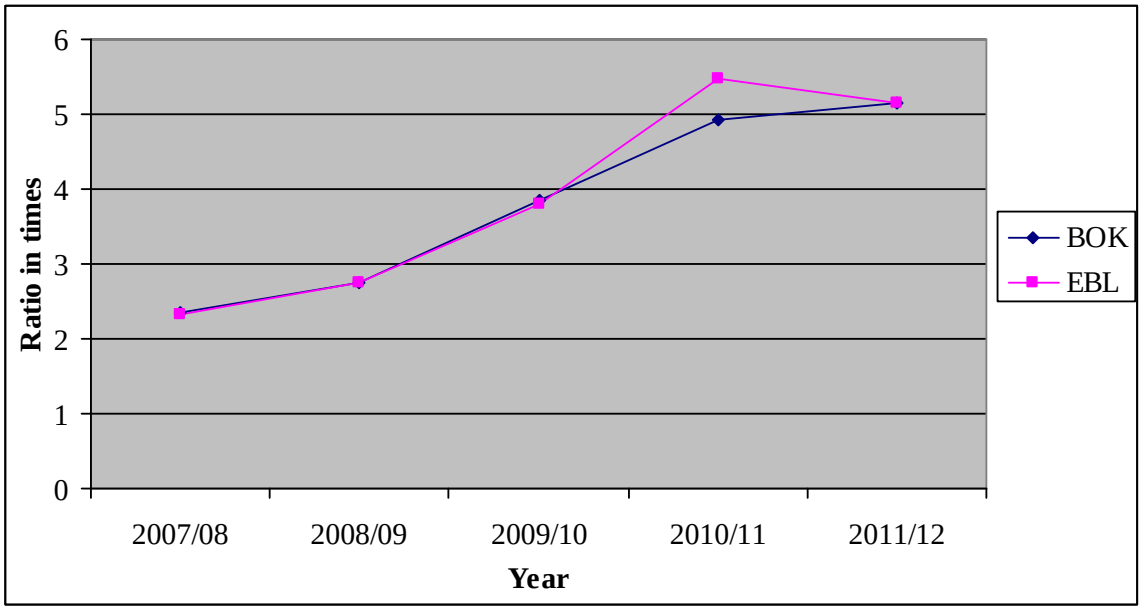
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Interest Paid	Total Assets	Ratio	Interest Paid	Total Assets	Ratio
2007/08	417.54	17721.93	2.35	632.61	27149.34	2.33
2008/09	563.11	20496	2.75	1012.87	36916.85	2.74
2009/10	902.93	23396.19	3.86	1572.79	41382.76	3.80
2010/11	1218.79	24757.75	4.92	2535.88	46236.21	5.48
2011/12	1484.54	28881.99	5.14	2873.33	55813.13	5.15
Mean			3.804			3.90
S.d.			1.2508			1.4035
C.V.			0.3288			0.3599

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.15

Interest Paid to Total Assets Ratio



The table and figure no 4.15 show the interest paid to total asset ratio of BOK and EBL. Both banks have increasing condition of interest paid to total asset ratio. Its means both

bank has increasing its interest cost. The highest ratio of BOK is 5.142% in F/Y 2011/12 and lowest ratio is 2.35% in F/Y 2007/08. Similarly highest ratio of EBL is 5.48% in F/Y 2010/11 and lowest ratio is 2.33% in 2007/08. The mean ratio of BOK and EBL are 3.804 and 3.90 percent. The average mean ratio of EBL is little more than that of BOK. Which indicate EBL paid more interest than BOK. In comparison, EBL seems ineffective in getting cheaper fund from the mean point of view. However, both banks are conscious in each year for getting cheaper fund. But last year EBL decreased. The C.V. of EBL is higher than BOK which indicates inconsistency in interest paid to total asset ratio.

4.1.1.4 Risk Ratio

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

A**) Credit Risk Ratio**

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

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

Table No. 4.16

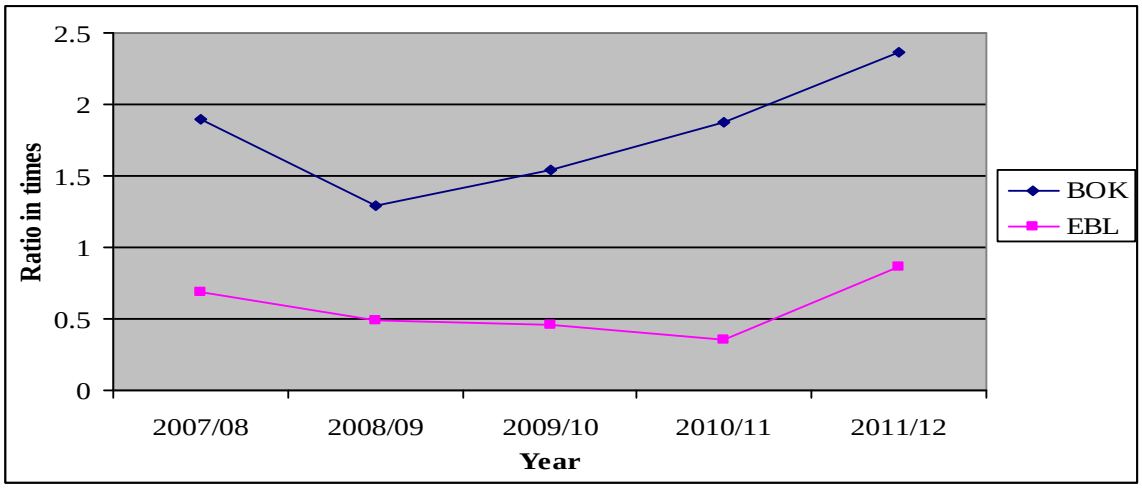
Credit Risk Ratio

Fiscal Year	BOK			EBL		
	Non-Performing Loan	Total Loan	Ratio	Non-Performing Loan	Total Loan	Ratio
2007/08	236.9	12462.64	1.90	127.31	18339.09	0.69
2008/09	190.32	14647.3	1.29	117.98	23884.67	0.49
2009/10	257.22	16664.93	1.54	125.56	27556.36	0.46
2010/11	326.33	17468.19	1.87	108.5	31057.69	0.35
2011/12	443.39	18813.94	2.36	307.49	35910.97	0.86
Mean			1.794			0.570
S.d.			0.4022			0.2033
C.V.			0.2242			0.3567

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.16

Credit Risk Ratio



The table and figure 4.16 show credit risk ratio of BOK and EBL. The both bank have decreasing at first and increasing at last. Decreasing trend is the good sign of efficient credit management. From mean point of view, non-performing loan to total loan and advances ratio of BOK and EBL are 1.794% and 0.570% respectively during the study

period. The average mean ratio of BOK has more than EBL. In comparison, EBL is more efficient at operating credit management than BOK. In another words, EBL has more performing loan than BOK. The EBL bank has efficiently used the total loan and advances than that of BOK in credit risk aspect. These ratios indicate the more efficient operating of credit management of both banks according to NRB directives. Because both bank has less than 5 percent. However Here EBL is more successful in loan recovery because it has lower non performing loan in total loan and advances. Ratio of BOK is more consistency than EBL due to having lower C.V. anyway both bank have considerable non performing loan.

(B) Liquidity Risk Ratio:

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets, they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity in need. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

Table No. 4.17

Liquidity Risk Ratio

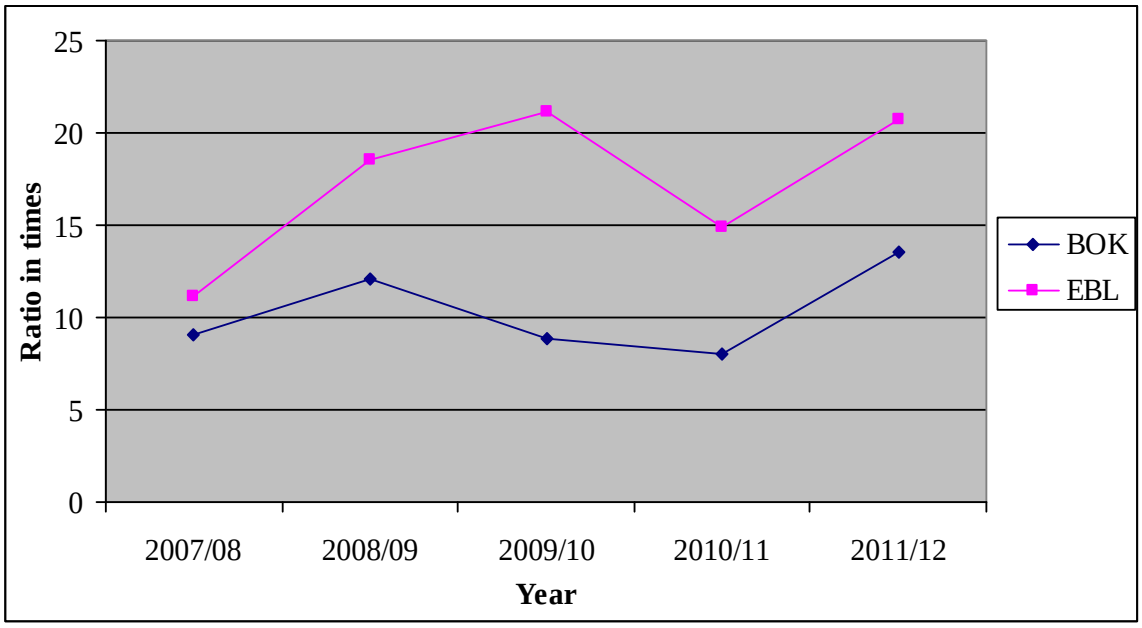
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Cash and bank balance	Total Deposit	Ratio	Cash and bank balance	Total Deposit	Ratio
2007/08	1440.47	15833.74	9.097	2667.97	23976.3	11.13
2008/09	2182.11	18083.98	12.07	6164.37	33322.95	18.50
2009/10	1798.37	20315.83	8.852	7818.81	36932.31	21.17
2010/11	1678.93	21018.42	7.99	6122.86	41127.91	14.89
2011/12	3382.71	24991.45	13.53	10363.31	50006.1	20.72
Mean			10.3078			17.282
S.d.			2.3688			4.2423
C.V.			0.2298			0.2455

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.17

Liquidity Risk Ratio



The table and figure 4.17 show liquidity risk ratio of the BOK and EBL. The liquidity ratio of both bank are fluctuating form. The highest ratio of BOK is 13.53% in F/Y 2011/12 and lowest ratio is 7.99% in F/Y 2010/11. Similarly highest ratio of EBL is 21.17% in F/Y 2009/10 and lowest ratio is 11.13% in F/Y 2007/08 respectively. The average mean ratio of BOK and EBL are 10.3078 and 17.282 percent. The average mean ratio of EBL is greater than that of BOK. It signifies that EBL has excess liquid fund to make immediate payment to the depositors. Lower C. V. and S.d indicate more consistency in ratio of BOK rather than EBL.

C.) Asset Risk Ratio:

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

Table No. 4.18

Asset Risk Ratio

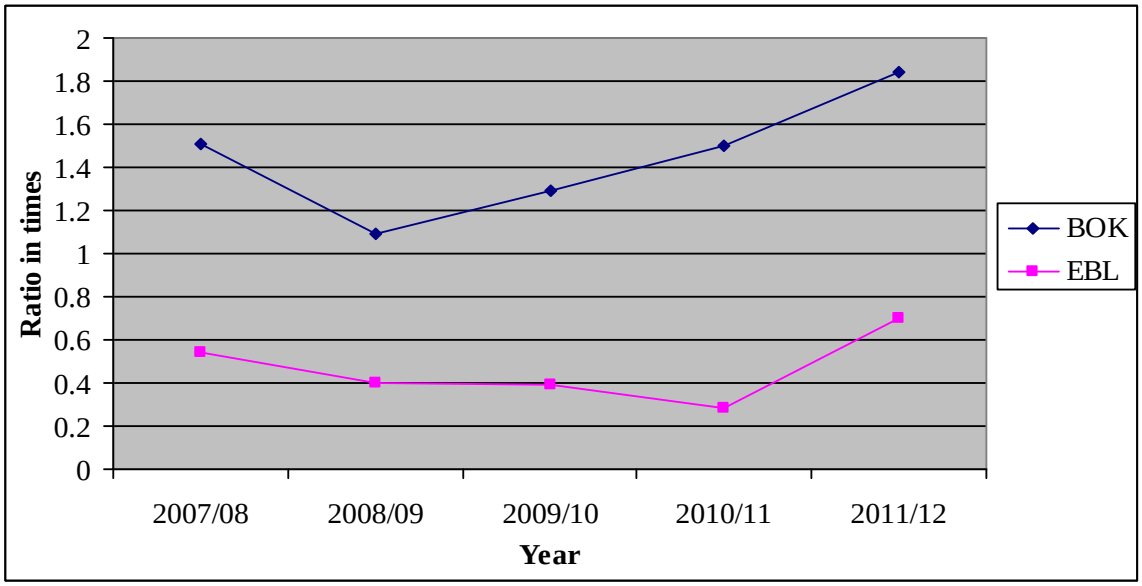
(Amount in Millions)

Fiscal Year	BOK			EBL		
	NPL	Outside Asset	Ratio	NPL	Outside Asset	Ratio
2007/08	236.9	15666.70	1.512	127.31	23398.65	0.54
2008/09	190.32	17430.90	1.09	117.98	29833.15	0.40
2009/10	257.22	19934.14	1.29	125.56	32564.67	0.39
2010/11	326.33	21754.79	1.50	108.4	38801.62	0.28
2011/12	443.39	24060.62	1.84	307.49	43774.6	0.70
Mean			1.446			0.462
S.d.			0.2799			0.1619
C.V.			0.1936			0.3505

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.18

Asset Risk Ratio



The table and figure 4.18 shows non-performing asset to total outside asset ratio of BOK and EBL. The ratio of both banks have decreasing trend and increasing at last. Decreasing trend is the good sign of efficient asset management. The highest ratio of

BOK is 1.84% and lowest 1.09%. Similarly highest ratio of EBL is 0.70% and lowest is 0.28%. The average mean non-performing asset to total outside asset ratio of BOK and EBL are 1.446% and 0.462% respectively during the study period. The asset risk ratio of BOK is higher than EBL. However, in comparison, EBL is more efficient in asset management than BOK. In another words, BOK is less efficient at asset management than EBL. The ratio of BOK is consistency than EBL due to having lower C.V. anyway BOK need to decrease it nonperforming asset.

4.1.1.5 Other Ratios

A) Earning Per Share

EPS measure the efficiency of a firm in relative terms. It is a widely used ratio, which measures the profit available to the ordinary shareholders on per share basis. Earning per share calculation made over years indicates whether the bank's earning power on per share basis has changed over that period or not but it doesn't reflect how much is paid as dividend and how much is retained in the business. Following table shows the EPS of related banks during the study period.

Table No. 4.19

Earning Per Share

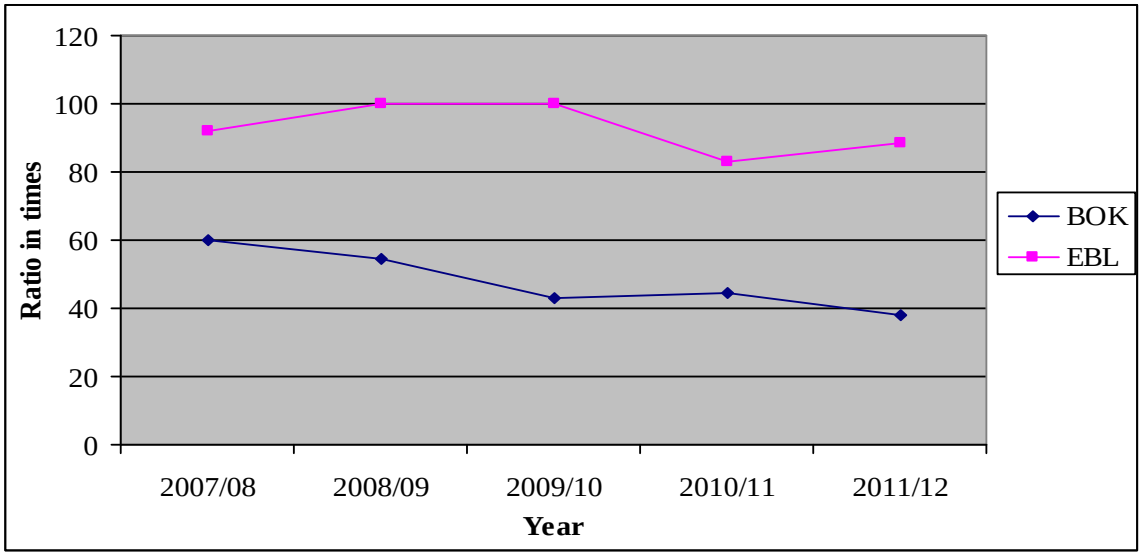
(Amount in Millions)

Fiscal Year	BOK			EBL		
	Net profit	Total equity	Ratio	Net profit	Total equity	Ratio
2007/08	361.49	6031413	59.94	451.22	4914000	91.82
2008/09	461.73	8443979	54.68	638.73	6388210	99.99
2009/10	509.63	11821571	43.08	831.77	8304673	100.16
2010/11	605.15	13594807	44.51	931.3	11196095	83.18
	607.66	16041873	37.88	1090.56	12316357	88.55
Mean			48.018			92.74
S.d.			9.0275			7.3725
C.V.			0.1880			0.0795

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.19

Earning Per Share



The table and figure 4.19 shows that earning price per share of BOK and EBL. Both BOK and EBL has fluctuating trend of its EPS. The highest EPS of BOK is 59.94 and lowest is 37.88 percent. Similarly highest EPS of EBL is 100.16 and lowest is 83.88 percent. The average EPS of BOK and EBL are 48.018 and 92.74. The average mean ratio of EBL seems higher than BOK which indicates successful to generating higher EPS. The shareholder of EBL getting higher earning than that of BOK. It is unsatisfying to state that both banks have been decreasing wealth from the view point of EPS. These decreasing trends which forecast bad performance in future. The S.D and C.V. of BOK is higher than EBL which indicate inconsistency in its EPS.

B) Dividend per Share

Shareholders want to receive dividend from their investment. They may have interest to know about the firm's activities, earning, and dividend so; each firm must announce the total dividend and dividend per Share which shows the position of the firm.

A firm wants to distribute dividend to its shareholder if a firm suppose the insufficient investment opportunities and sector. Sometimes, it does not distribute dividend and sometime issues bonus shares. On the other hand, shareholders want to receive dividend

from their investment. They may have interest to know about the firm's activities, earning, divisible profit or proposed dividend or declared dividend. So, each firm must announce the total dividend and dividend per share which show the position of the firm.

Table No. 4.20

Dividend per Share

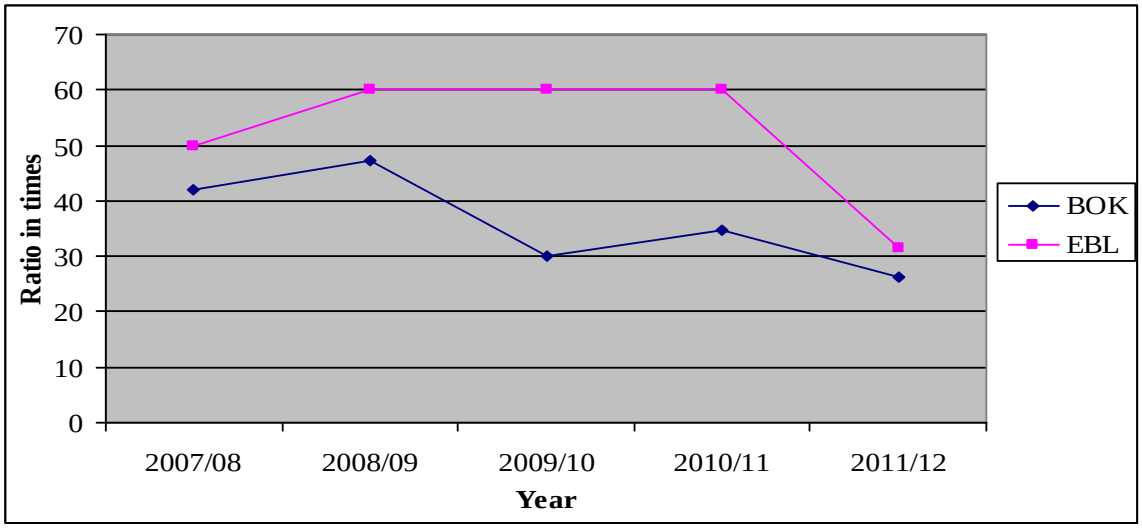
(Amount in Rupee)

Fiscal Year	BOK			EBL		
	Cash	Stock	Total Dividend	Cash	Stock	Total Dividend
2007/08	2.11	40	42.11	20	30	50
2008/09	7.37	40	47.37	30	30	60
2009/10	15	20	30.00	30	30	60
2010/11	18	16	34.75	10	50	60
2011/12	21.32	5	26.32	1.58	30	31.58
Mean			36.11			52.316
S.d.			8.6286			12.3741
C.V.			0.2389			0.2365

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.20

Dividend per Share



The statistics shows that dividend per share of BOK and EBL. The dividend per share of both bank have seem to be fluctuating. The highest dividend 47.37% provided in 2008/09 and lowest 26.32% provided in F/Y 2007/08 by BOK. Similarly the highest dividend 60% and lowest 31.58% provided in F/Y 2011/12. The average DPS of BOK and EBL are 36.11 and 62.316 percent. Average dividend per share of EBL is higher than that of BOK. Which indicate EBL provide more earning to its shareholder than BOK. The C.V. of BOK is little high so it indicates high volatile and inconsistency in dividends during the study period. It can be concluded shareholder of EBL getting higher dividend than that shareholder of BOK.

C) Market Price per Share

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

Table No. 4.21

Market Price per Share

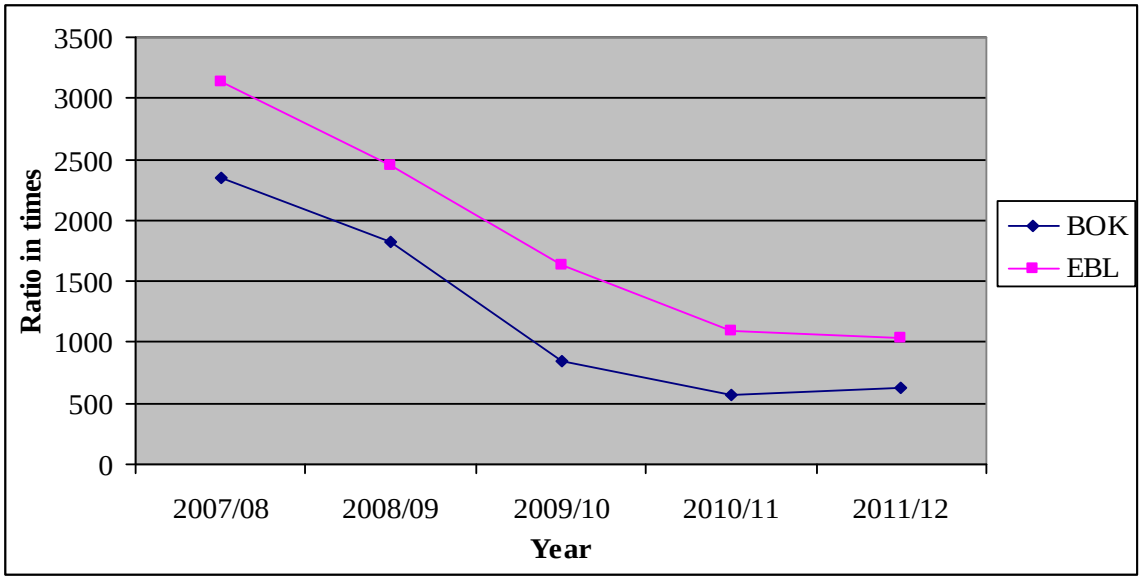
(Amount in Rupee)

Fiscal Year	BOK	EBL
	MPS	MPS
2007/08	2350	3132
2008/09	1825	2455
2009/10	840	1630
2010/11	570	1094
2011/12	628	1033
Mean	1242.6	1868.8
S.d.	799.646	907.635
C.V.	0.6435	0.48568

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.21

Market price per share



The table and figure 4.21 shows market price of the share of BOK and EBL. Both bank BOK and EBL has decreasing its share price during the study period. It indicates that recession in share market start from F/Y 2007/08. This also indicates low performance of company and low expectation from company. The highest MPS of BOK is 2350 and lowest is 570 similarly highest MPS of EBL is 3132 and lowest is 1033. The average mean price of BOK and EBL are 1242.6 and 1868.8 rupee. The average mean price of EBL is higher than that of BOK. It indicates that EBL doing better performance and better expectation than that of BOK. The shareholder of EBL are getting higher price. The C.V. of BOK is higher than EBL which indicate fluctuating in its share price. The share of EBL has trading higher in market than BOK.

D) Price Earning Ratio

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

Table No. 4.22

Price Earning Ratio

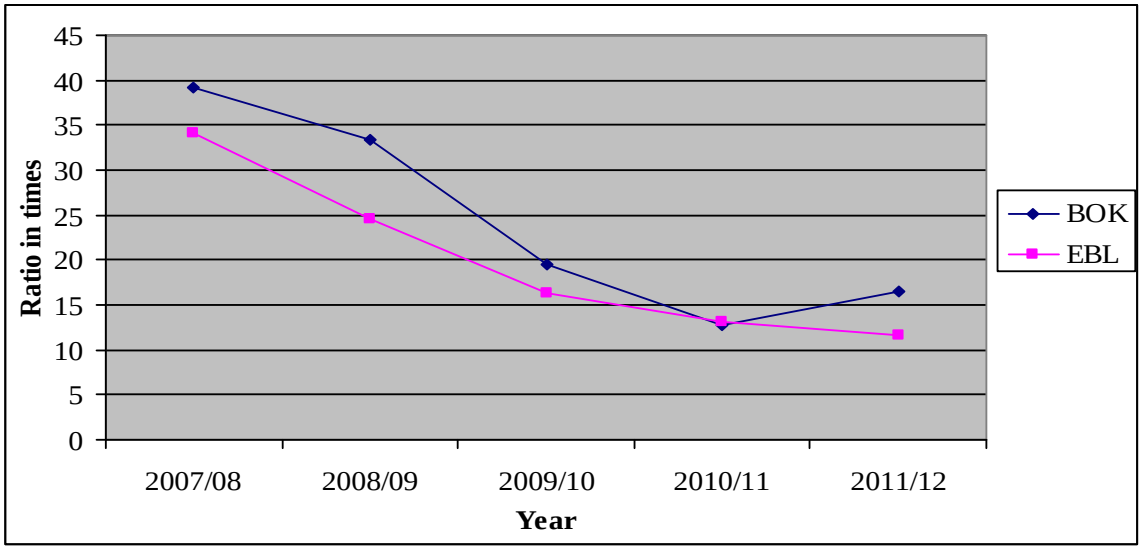
(Amount in Rupee)

Fiscal Year	BOK			EBL		
	MPS(in Rs)	EPS (in Rs)	PE/Ratio	MPS(in Rs)	EPS (in Rs)	PE/Ratio
2007/08	2350	59.94	39.206	3132	91.82	34.11
2008/09	1825	54.68	33.376	2455	99.99	24.55
2009/10	840	43.08	19.499	1630	100.16	16.27
2010/11	570	44.51	12.806	1094	83.18	13.15
2011/12	628	37.88	16.58	1033	88.55	11.67
Mean			24.293			19.95
S.d.			11.394			9.3542
C.V.			0.4690			0.4689

Source: Annual Report of Concern Banks (F/Y 2007/08 to 2011/12)

Figure No 4.22

Price Earning Ratio



The table and figure shows 4.22 price earning ratio of BOK and EBL. The PE ratio BOK and EBL are decreasing form. The highest ratio of BOK is 39.206 and lowest ratio is 12.806 times. Similarly highest ratio of EBL is 34.11 and 11.67 times. The average P/E

ratio of the BOK and EBL are 24.293 and 19.95 times respectively. It indicates that for getting Rs 1 as earning, one should invest Rs 24.293 in BOK and Rs 19.95 in EBL. Looking the mean ratio we conclude that investor of BOK are getting better profitability because they are selling their shares in high price. So it is better to sale share of BOK and purchase share of EBL. Because P/E ratio of EBL is lower. From the long term view and sustainable fair price, investor of EBL getting better earning and they will be in safe side a little bit in comparison with BOK. The S.D and C.V of BOK is little high than the EBL it indicate its inconsistency its P/E ratio. So above statistic shows its better to invest in share of EBL rather than the BOK.

4.2 Statistical Analysis

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

4.2.1 Coefficient of Correlation Analysis

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

A) Correlation Coefficient between Deposit and Loan and Advances

Deposit have played very important role in performance of a commercial banks and similarly loan and advances are very important to mobilize the collected deposits. Co-efficient of correlation between deposit and loan and advances measures the degree of

relationship between these two variables. In this analysis, deposit is independent variable (X) and loan and advances are dependent variable (Y). The main objectives of computing 'r' between these two variables is to justify whether deposit are significantly used as loan and advances in proper way or not.

Table No. 4.23

Correlation between Deposit and Loan and Advances

Name of Banks	Evaluation Criterions				
	r	r^2	P. Er.	6 P.Er.	Remarks
BOK	0.983	0.9663	0.01017	0.06101	Significant
EBL	0.995	0.9900	0.00301	0.01805	Significant

Source: Through SPSS Data Editor

In above table 4.23, it is found that coefficient of correlation between deposits and loan and advances of BOK and EBL are 0.983 and 0.995. It is shows that both have the positive relationship between these two variables. It refers that deposit and loan and advances of BOK move together very closely. Moreover, the coefficient of determination of BOK is 0.9663. It means 96.63 percent of variation in loan and advances has been explained by deposit. Similarly, value of coefficient of determination of EBL is 0.9900. It refers that 99 percent variance in loan and advances are affected by total deposit. The correlation coefficient of both banks is significant because the r is greater than the relative value of 6 Probable Error. In other words, there is significant relationship between deposits and loan and advances of BOK and EBL.

B) Coefficient of Correlation between Total Deposits and Total Investment

The coefficient of correlation between deposit and investment measures the degree of relationship between these two variables or deposit is significantly utilized or not. In correlation analysis, deposit is independent variable (X) and total investment is dependent variable (Y). The following Table No. 4.24 shows the correlation between deposits and total investments i.e. r, P. Er., 6 P. Er. and coefficient of determination (r^2) of BOK and EBL during the study period.

Table No. 4.24

Correlation between Deposit and Total Investment

Name of Banks	Evaluation Criterions				
	r	r^2	P.Er.	6 P. Er.	Remarks
BOK	0.856	0.7327	0.0806	0.4837	Significant
EBL	0.831	0.6906	0.0933	0.5601	Significant

Source: Through SPSS Data Editor

The Table 4.24 shows the coefficient of correlation between total deposit and total investment of BOK and EBL. The correlation of BOK is 0.856. It shows the high degree of positive correlation. In addition, coefficient of determination of BOK is 0.7327, It means 73.27 percent of total investment is explained by total deposit. The relation is significant because the correlation coefficient is high than 6 P. Er. It refers that there is significant relationship between total deposit and total investment of BOK. Similarly correlation between total deposit and total investment of EBL is positive. This indicates two variable moves same direction but not proportionately. The value of coefficient of determination is 0.6906 this refers that 69.06 percent of the variation in total investment is explained by total deposit least are determined by other factor. The correlation coefficient is also significant because the correlation coefficient is higher than 6 P. Er. It refers that there is significant relationship between total deposit and total investment of EBL.

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

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

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

determine the degree of relationship whether there the net profit is significantly correlated or not and the variation of net profit to loan and advance through the coefficient of determination. The following table shows the 'r', r^2, P.Er. and 6 P. Er. between those variables of BOK and EBL for the study period.

Table No. 4.25

Correlation between Loan and advance and Net profit

Name of Banks	Evaluation Criterions				
	r	r^2	P.Er.	6 P.Er.	Remarks
BOK	0.972	0.9448	0.0167	0.0999	Significant
EBL	0.996	0.9920	0.0024	0.0145	Significant

Source: Through SPSS Data Editor

The Table 4.25 shows correlation coefficient between loan & advance and net profit is 0.972 of BOK. It refers that there is positive correlation between these two variables. Here, 94.48 percent of net profit is contributed by Loan and advance as its coefficient of determination is 0.9448 shows. Moreover, this relationship is significant because the coefficient of correlation is more than 6 P.Err.

Likewise EBL also has positive correlation between loan & advance and net profit by 0.992. The coefficient of determination r^2 is 0.9920 which indicates that 99.20 percent v in net profit is explained by loan and advance. The correlation coefficient is higher than 6 P.Er. So relationship between loan and advance and net profit is significant for EBL. It refers that there is significant relationship between total deposit and total investment of EBL. In calculation, both BOK and EBL have significant relationship between loan and advance and net profit.

D. Coefficient of correlation between total deposit and net profit

Coefficient of correlation between total deposit and net profit measures the degree of relationship between these two variables. In this analysis, deposit is independent variables (X) and net profit is dependent variable(Y). The table shows the value of r, r^2, probable Error (P.Err) and 6 P.Er. between total deposit and net profit of BOK and EBL.

Table: 4.26

Coefficient of Correlation Between total deposit and net profit

Name of Banks	Evaluation Criterions				
	r	r^2	P.Er.	6 P.Er.	Remarks
BOK	0.934	0.8723	0.0385	0.2310	Significant
EBL	0.985	0.9702	0.0089	0.0539	Significant

Source: Through SPSS Data Editor

The table 4.26 shows that coefficient of correlation between total deposit and net profit of BOK and EBL. The correlation coefficient between total deposit and net profit of BOK is 0.934 which implies there is positive correlation between total deposit and net profit. In addition, coefficient of determination of BOK is 08723. It means 87.23 percent of Profit is contributed by total deposit. The correlation is significant at all due to coefficient of correlation is higher than 6 P Error. On the other hand EBL has also positive correlation between total deposit and net profit by 0.985. The coefficient of determination of EBL is 0.9702 It means 97.02 percent of profit is contribute by total deposit. This relationship is significant as its correlation coefficient is higher than 6 P Err. So both banks BOK and EBL have positive correlation between total deposit and net profit and relationship between these two variables of BOK and EBL have significant.

E) Coefficient of Correlation of Total Deposit between BOK and EBL

Coefficient of correlation of total deposit between BOK and EBL and shows their linear relationship. Here analyzed the how total deposit of different bank interrelated.

Table No. 4.27

Correlation between Total Deposit of BOK and EBL

Evaluation Criterions				
R	R^2	P. Er.	6 P. Er.	Remarks
0.992	0.9841	0.0048	0.0288	Significant

Source: Through SPSS Data Editor

The table 4.27 shows positive correlation between BOK and EBL in case of total deposit. This table shows how the total deposit of BOK and EBL correlated. The 0.992 of

correlation coefficient shows that there is highly positive correlation between these two banks in this regard. The relation is also significant because the correlation coefficient is high than 6 P.Er. As the 0.9841 of coefficient of determination, this shows the 98.41 percent of the degree of relationship. This all indicate that total deposit of both banks moves same direction.

F) Coefficient of Correlation of Total Investment between BOK and EBL

The coefficient of correlation of total investment between selected commercial banks is shown as follow:

Table No. 4.28

Correlation between Total Investment of BOK and EBL

Evaluation Criterions				
R	R^2	P.Er.	6 P.Er.	Remarks
0.849	0.7208	0.0842	0.5053	Significant

Source: Through SPSS Data Editor

The table 4.28 reveals the positive correlation between BOK and EBL in case of total investment. The correlation between these two variables is 0.849. It implies that the total investment of BOK and EBL moves in the same direction. Here correlation r > 6 P. Er. Therefore, correlation coefficient significant. The coefficient of determination is 0.7208, which shows the 72.08 percent of the degree of relationship.

G) Coefficient of Correlation of Loan and Advances between BOK and EBL

The coefficient of correlation of loan & advances between BOK and EBL has been given below.

Table No. 4.29

Correlation between Loan and Advances of BOK and EBL

Evaluation Criterions				
R	R^2	P.Er.	6 P.Er.	Remarks
0.989	0.9781	0.0066	0.0396	Significant

Source: Through SPSS Data Editor

The table 4.29 shows that there is positive correlation between loan and advances of BOK and EBL. The correlation coefficient between two banks is 0.989. It means loan and advances of these two banks moves in the same direction in high proportion. This correlation coefficient is significant in order to show the relationship between loan and advances of these two banks because correlation coefficient is greater than 6 P.Er. The coefficient of determination is 0.9781 which shows the 97.81 percent of the degree of relationship.

H) Coefficient of Correlation of Net Profit between BOK and EBL

The coefficient of net profit between the selected commercial banks shows the relationship between the banks.

Table No. 4.30

Correlation between Net Profit of BOK and EBL

Evaluation Criterions				
R	R^2	P.Er.	6 P.Er.	Remarks
0.969	0.9389	0.0184	0.1105	Significant

Source: Through SPSS Data Editor

The table 4.30 shows the positive correlation between net profits of BOK and EBL which is indicated by correlation coefficient of 0.969, which indicates how the net profit of BOK and EBL interrelated. This relationship is significant because its correlation coefficient is higher than 6 P. Er. The coefficient of determination is 0.9389 which shows the 93.89 percent of the degree of relationship.

4.2.2 Time Series Analysis (Trend Analysis)

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

A) Trend Analysis of Total Deposit:

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

$Y = a + bx$

Where,

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

X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x$……. (I)

Where x = X - Middle year

Where as

Yc = 19874.3 + 1950.59* X of BOK

Yc = 37073.1 +5986.46 * X of EBL

Table No. 4.31

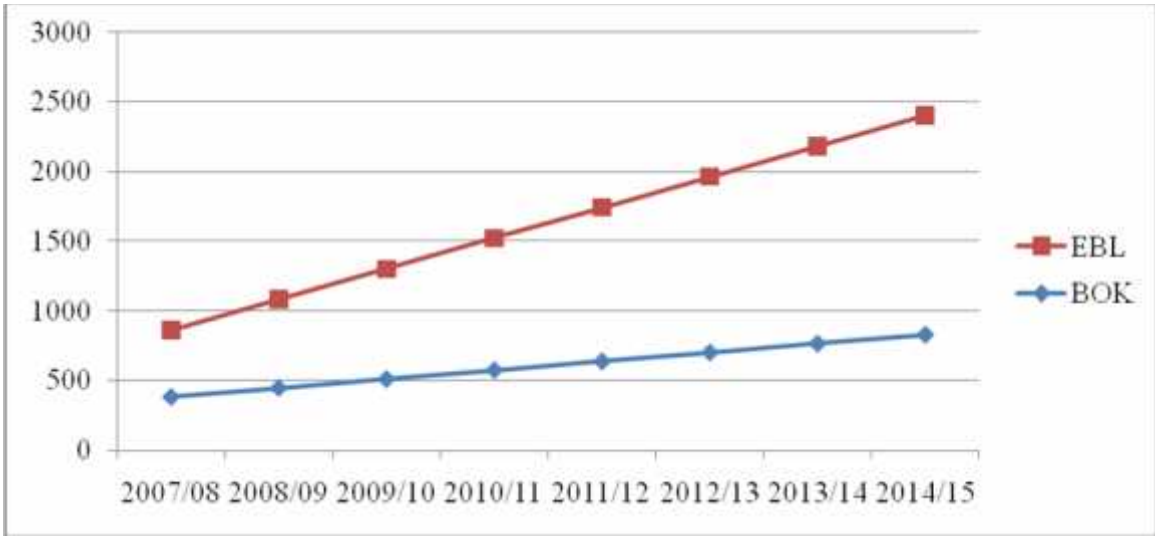
Trend analysis of Total Deposit of BOK and EBL		
Year(x)	BOK	EBL
2007/08	15973.1	25100.2
2008/09	17923.7	31086.66
2009/10	19874.3	37073.11
2010/11	21824.9	43059.57
2011/12	23775.5	49046.03
2012/13	25726.1	55032.48
2013/14	27676.6	61018.94
2014/15	29627.2	67005.39

Source: Trend value of Concern Bank

Appendix -1

Figure No 4.23

Trend Line of Total Deposit of BOK and EBL



The table 4.31 and figure shows that trend of total deposit of BOK and EBL. Both Banks is in increasing trend. The rate of increment of total deposit for EBL seems to be higher than that of BOK. The actual trend value of total deposit for EBL is more than that of BOK. The trend analysis has projected deposit amount in fiscal year FY 2012/13 to FY 2014/15. From the above trend analysis it is clear that EBL has higher position in collecting deposit than BOK.

B) Trend Analysis of Loan and advances

Here, the trend values of loan and advances Between BOK and EBL have been calculated for further five year. The following table shows the actual and trend values of BOK and EBL.

Where, Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate, X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x$……. (I)

$Yc = 16011.4 + 1552.35 * X$ of BOK

$Yc = 27349.8 + 4231.68 * X$ of EBL

Table No. 4.32

Trend analysis of Total Loan and Advance of BOK and EBL		
Year(x)	BOK	**EBL**
2007/08	12906.7	18886.43
2008/09	14459.1	23118.11
2009/10	16011.4	27349.8
2010/11	17563.8	31581.49
2011/12	19116.1	35813.17
2012/13	20668.5	40044.86
2013/14	22220.8	44276.55
2014/15	23773.2	48508.24

Source: Appendix - 2

Figure No 4.24

Trend line of Total Loan and Advance of BOK and EBL

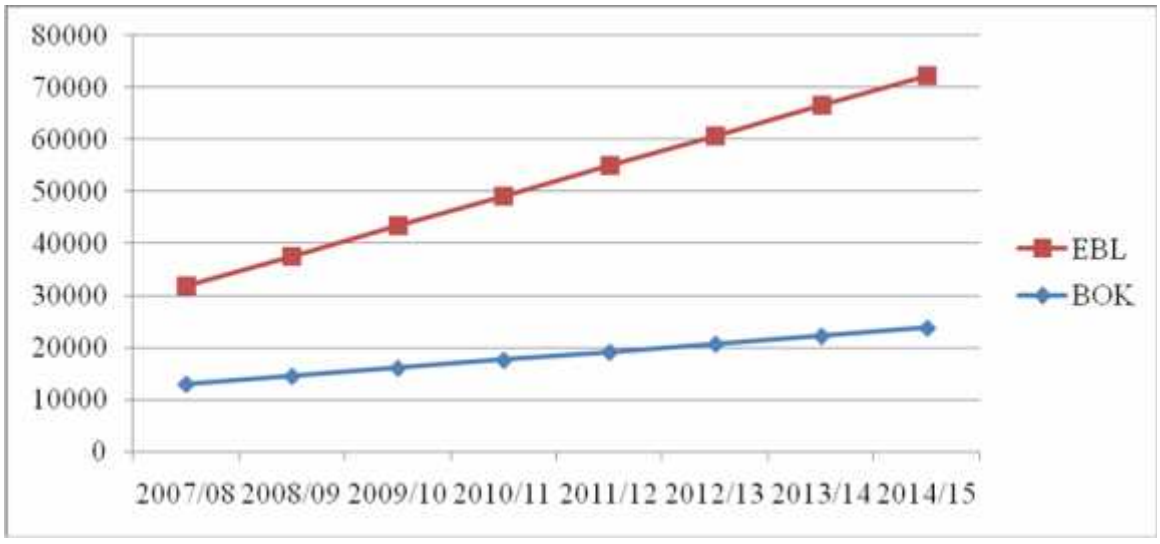


Table and figure 4.32 depicts that trend of loan and advances of BOK and EBL. Both Banks has in increasing trend. The increasing trend of EBL is higher and aggressive than BOK. The value of loan and advances for EBL is higher than BOK. From the above analysis, it is clear that both EBL and BOK is mobilizing its collected funds in the form

of loan and advances. But shows EBL has highly mobilizing loan and advances than the BOK. Anyway both bank have increasing trend of its loan and advance.

C) Trend Analysis of Total Investment

Under this topic has been made to analyze trend analysis total investment of BOK and EBL. The trend shows further three year of total investment.

Where,

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

X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x$……. (I)

Where x = X - Middle year

Yc = 3758.03 + 558.822 * X of BOK

Yc = 6324.782 +740.359 * X of EBL

Table No. 4.33

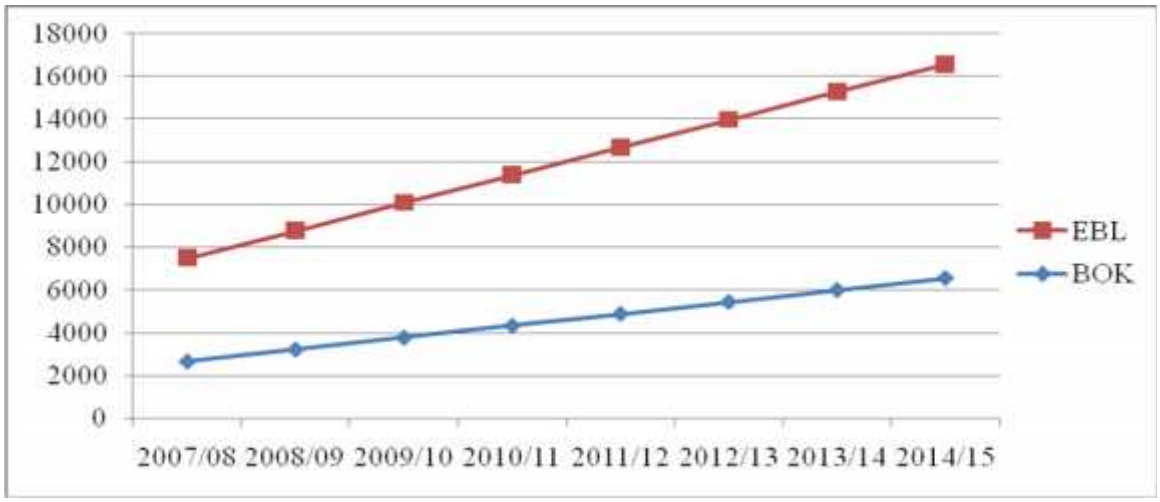
Trend analysis of Total Investment Between BOK and EBL		
Year(x)	BOK	EBL
2007/08	2640.386	4844.064
2008/09	3199.208	5584.423
2009/10	3758.03	6324.782
2010/11	4316.852	7065.141
2011/12	4875.674	7805.5
2012/13	5434.496	8545.859
2013/14	5993.318	9286.218
2014/15	6552.14	10026.58

Source: Trend value of Concern Bank

Appendix -3

Figure No 4.25

Trend Line of Total Investment between BOK and EBL



Above table and figure show the trend of total investment between BOK and EBL. Both BOK and EBL are increasing trend in making investment. Both banks have increasing its total investment parallely but EBL has higher. It indicates both banks increasing its total investment. The trend of total investment projected to further five year F/Y 2016/17. The forecasted trend projected that the EBL has higher increment rate in total investment rate than of BOK.

D) Trend Analysis of Net Profit

Here, the trend values of net profit of BOK and EBL have been calculated for five years FY 2007/08 to FY 2011/12 and forecasting further next three year till FY 2014/15.

$Y= a + bx$

Where,

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

X = deviation from some convenient time periods.

Let trend line be

$Y = a + b x$……. (I)

Where x = X - Middle year

Yc = 509.132 +63.576 * X of BOK

Yc = 788.716 + 157.125 * X of EBL

Table No. 4.34

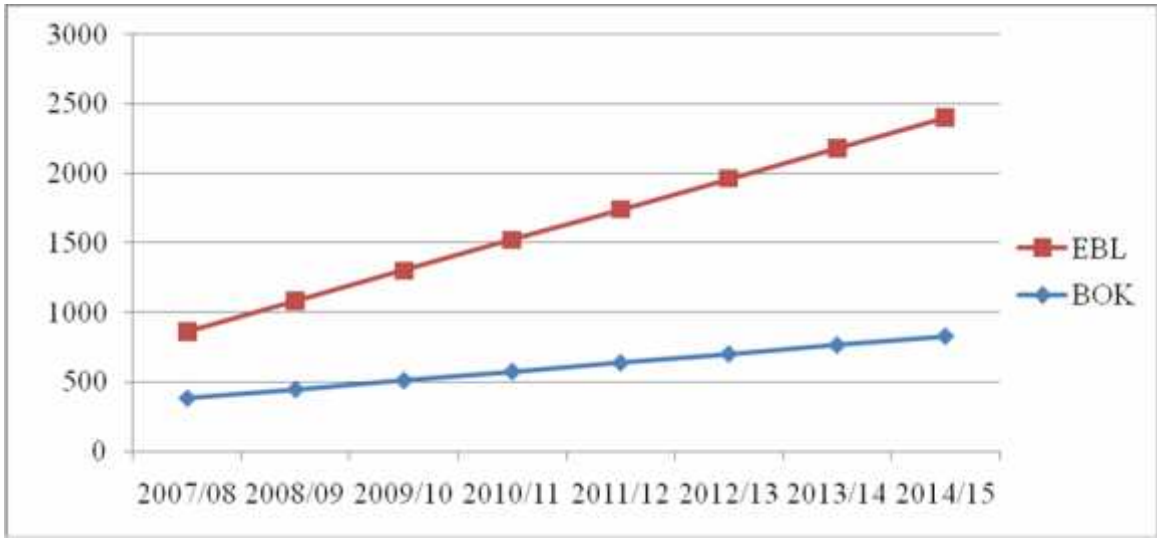
Trend Analysis of Net Profit Between BOK and EBL		
Year(x)	BOK	EBL
2007/08	381.98	474.468
2008/09	445.556	631.593
2009/10	509.132	788.718
2010/11	572.708	945.843
2011/12	636.284	1102.968
2012/13	699.86	1260.093
2013/14	763.436	1417.218
2014/15	827.012	1574.343

Source: Trend value of Concern Bank

Appendix - 4

Figure No 4.26

Trend Line of Net Profit between BOK and EBL



The table 4.34 and figure reveals the trend of Net profit of BOK and EBL. Net profit of both banks BOK and EBL forecasted in increasing trend. The trend of increasing value of

net profit of EBL is higher than BOK. The net profit of BOK and EBL has been increasing every year by Rs. 63.576 million and Rs. 157.125 million respectively. The increment rate of net profit of EBL is higher and aggressive than BOK. The trend of Net profit projected to further three year till F/Y 2014/15. Above statistics, shows that both the banks have increasing trend of net profit throughout the study period. In conclusion, EBL is doing better in order to generate net profit during the projected study period although both have increasing trend.

4.3 Findings of the Study

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

1. Generally banks have to maintain standard current assets. The current ratio of BOK and EBL are fluctuating. The average current ratio of BOK and EBL are 1.046 and 1.558. The liquidity position of EBL is greater than BOK. The EBL appropriate current ratio where as BOK has lower than the standard current ratio. (Table 4.1)
2. The average cash and bank balance to total deposit ratio of BOK and EBL are 10.310 and 17.282 percent. EBL has higher ratio than the BOK, which shows its greater ability to pay depositors money. Liquidity position however is good. (Table 4.2)
3. The cash and bank balance to current assets ratio of BOK fluctuating and EBL has increasing. The mean ratio of EBL is higher than BOK. The higher mean ratio shows that EBL's liquidity position is better than that of BOK. (Table 4.3)
4. The investments on government securities to current assets ratio of BOK and EBL have fluctuating. The mean ratio of BOK is lower than EBL. It means EBL has invested more money in risk free assets than BOK. For minimization of investment risk, BOK should divert its investment in govt. securities. (Table 4.4)
5. The loan and advances to total deposit ratio of BOK and EBL have fluctuating. BOK has higher ratio than that of EBL. It indicates the better mobilization of

deposit by BOK as loan and advance. It reveals that the deposit of BOK has utilized as to loan and advances to earn income. The EBL has lower lending from its deposit. (Table 4.5)

6. BOK and EBL both the banks have fluctuating in total investment to total deposit ratio. The average ratio of the BOK and EBL are 18.773% and 17.414%, which shows that BOK has little higher ratio. It signifies that BOK has invested little more from its deposit than that of EBL. (Table 4.6)
7. The loan and advances to total assets ratio BOK and EBL are fluctuating. BOK has higher ratio than EBL. It reveals that in total assets of BOK has high proportion as loan and advances. BOK has utilized its total assets more efficiently in the form of loan and advances. The lower C.V. of EBL states that it has more uniformity in ratios than BOK. (Table 4.7)
8. The investment on government securities to total assets BOK and EBL have fluctuating. The mean ratio of BOK and EBL are 13.332% and 14.624%. The ratio of EBL has little higher than BOK. It means EBL has invested more assets in risk free assets than BOK. EBL focus on investment in risk free asset. (Table 4.8)
9. The returns on loan and advances ratio of BOK and EBL have fluctuating form. This both banks show the normal earning capacity in loan and advances and same earning capacity in form of loan and advances. The average ratio of BOK is higher than EBL. Which indicate that return from loan and advance of BOK is higher than EBL. BOK has utilized the loan and advance for the profit generation in earning capacity. (Table 4.9)
10. The return on total assets of BOK and EBL both banks are fluctuating. The return on its total assets however, BOK seems successful in managing and utilizing the available assets in order to generate revenue since its ROA is higher than EBL. (Table 4.10)
11. Return on equity ratio of BOK and EBL have fluctuating. The average mean ratio of EBL has higher mean ratio than that of BOK. So EBL is generating higher ROE in comparison with BOK. The shareholders of EBL are getting higher return than BOK. (Table 4.11)

12. The BOK and EBL banks have increasing total interest earned to total asset ratio, which indicate both banks doing well in interest earning. The mean ratio of BOK is little more than that of EBL. EBL seems effective in interest earning ratio despite having lower asset and interest earning. BOK also has higher uniformity in the ratios during the study period. (Table 4.12)
13. The interest earned to total outside assets ratio of both bank BOK and EBL are in increasing form. The mean ratio of BOK and EBL are 9.114% and 9.194% respectively. EBL has little higher ratio than BOK. Here EBL seems to have more efficiency in generating total interest through well utilizations of outside assets and also has relatively consistency returns as well. (Table 4.13)
14. Interest earned to operating income ratio of BOK has increasing whereas EBL has fluctuating. The average ratio of EBL is higher than BOK. The EBL has greater share of total interest earn in its total operating income. Higher ratio of EBL indicates the high contribution in operating income made by lending and investing activities (core banking activity). The ratio of EBL also more consistency than BOK. (Table 4.14)
15. The interest paid to total asset ratio of BOK and EBL both banks have increasing condition. The mean ratio of EBL is little more than that of BOK. EBL seems ineffective in getting cheaper fund from the mean point of view. However, both banks have been conscious in each year for getting cheaper fund as it has decreased ratio at last year. (Table 4.15)
16. The credit risk ratio of BOK and EBL are fluctuating form. Decreasing of credit risk ratio is the good sign of efficient credit management. The mean ratio of BOK and EBL are 1.794% and 0.570%. This indicates BOK has little more credit risk due to high ratio. Anyway these ratios indicate the more efficient operating of credit management of both banks according to NRB directives. However, EBL is more efficient at operating credit management than BOK. (Table 4.16)
17. The liquidity risk ratio of the BOK and EBL are in fluctuating form. The average mean ratio of EBL is greater than that of BOK. It signifies that EBL has sound liquid fund to make immediate payment to the depositors. So comparatively BOK is higher liquidity risk ratio than EBL due to low liquidity. (Table 4.17)

18. The asset risk ratio of both banks BOK and EBL are fluctuating. Decreasing trend is the good sign of efficient asset management. The average credit risk ratio of BOK is higher than EBL. These ratios indicate the more assets riskier of BOK than EBL. In comparison, EBL is more efficient in asset management than BOK. (Table 4.18)
19. The earning price per share BOK and EBL have fluctuating form. EBL is better mobilizing it resources to get more earning per share (EPS). The average EPS of BOK and EBL are 48.018 and 92.74. The EPS of EBL seems higher than BOK which indicates successful to generating higher EPS in each year and in average too. The ratio of BOK also more fluctuating than EBL. (Table 4.19)
20. The dividend per share of BOK and EBL are fluctuating. The average dividend per share of EBL is higher than BOK. It can be concluded shareholder of EBL getting higher dividend than that shareholder of BOK. (Table 4.20)
21. Market price of the share of both bank BOK and EBL has decreasing. This tends low performance and expectation from company. The highest MPS of BOK is 2350 and lowest is 570 Rupee. Similarly highest MPS of EBL is 3132 and lowest is 1033 Rupee. Average price of EBL is higher than BOK. It indicates that shareholder of EBL are getting higher price. (Table 4.21)
22. The price earning ratio of BOK and EBL are decreasing from. The mean ratio of the BOK and EBL are 24.293 and 19.95 times. It indicates that for getting Rs 1 as earning, it should invest Rs 24.293 in BOK and Rs 19.95 in EBL. Here investors of BOK are getting better price because they are selling their shares in high price. So its better to sale share of BOK and purchase stock of EBL. The investor of EBL will get better profitability and they will be in safe side a little bit in comparison with BOK. (Table 4.22)
23. The correlation between deposits and loan and advances of BOK and EBL are 0.983 and 0.995. It is shows that both banks have positive relationship between these two variables. The relationship between deposits and lending of BOK and EBL are significant. (Table 4.23)
24. The correlation between total deposit and total investment of BOK and EBL are positive. This indicates that deposit and investment move same direction. The

relationship between total deposit and total investment of BOK and EBL are also significant. (Table 4.24)

25. The correlation between loan & advance and net profit of BOK and EBL are positive. It is positive correlation between these two variables. BOK has 94.48 percent of net profit is contributed by loan and advance as its coefficient of determination is 0.9448. Similarly 99.20 percent net profit is contributed by loan and advance due to its coefficient of determined is 0.9920 of EBL. The BOK and EBL have significant relationship between loan and advance and net profit. (Table 4.25)
26. The correlation between total deposit and net profit of BOK and EBL are positive by 0.934 and 0.985. Both banks have positive correlation but EBL has higher. The BOK and EBL have significant relationship between total deposit and net profit. (Table 4.26)
27. The correlation of total deposit between BOK and EBL is positive. The 0.992 of correlation coefficient shows that there is highly positive correlation between these two banks in this regard. The relation is also significant because the correlation coefficient is high than 6 P Err. As the 0.9841 of coefficient of determination, this shows the 98.41 percent of the degree of relationship. This all indicate that total deposit of both banks moves same direction. (Table 4.27)
28. There is positive correlation between BOK and EBL in case of total investment. It implies that the total investment of BOK and EBL move in same direction. The correlation coefficient is significant. But correlation between loan and advances of BOK and EBL is highly positive. The correlation coefficient between two banks is 0.989. It means loan and advances of these two banks moves in the same direction in high proportion. The relationship between loan and advances of these two banks is also significant. (Table 4.28 & 29)
29. There is positive correlation between net profits of BOK and EBL which is indicated by correlation coefficient of 0.969. This table shows how the net profit of BOK and EBL interrelated. The coefficient of determination is 0.9389 which shows the 93.89 percent of the degree of relationship. This relationship between net profits of BOK and EBL is significant. (Table 4.30)

30. The trend of total deposit of BOK and EBL banks is in increasing trend. The rate of increment of total deposit for EBL seems to be higher than that of BOK. The trend value of total deposit for EBL is more than that of BOK. Similarly the trend of loan and advances between BOK and EBL also increasing trend. The increasing trend of EBL is higher and aggressive than BOK. It is clear that both BOK and EBL is mobilizing its collected deposits and other funds in the form of loan and advances. The trend projected to further three year. (Table 4.31 &32)
31. The trend of total investment of BOK and EBL are increasing trend. The increment of total investment of BOK and EBL are parallel. The forecasted trend projected that the EBL and BOK increasing equally. Similarly the trend of Net profit of BOK and EBL are increasing trend. The trend of increasing value of net profit of EBL is higher than BOK. The net profit of BOK and EBL has been increasing every year by Rs. 63.576 and Rs. 157.125 million respectively. The increment rate of net profit of EBL is higher than BOK. EBL is doing better in order to generate net profit during the projected study period although both BOK and EBL have increasing trend. (Table 4.33&34)

CHAPTER – V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This research has been undertaken to evaluate the liquidity management of commercial banks. The research is about the study on liquidity mobilization of BOK and EBL. In this chapter, summary conclusion and recommendation are included. All the summary and conclusion are made according to obtained data from analysis. Recommendation has made which would be beneficial for the management of the bank and other stakeholder as well as other concern people.

5.1 Summary

This research has been evaluated the liquidity mobilization of commercial banks. Two banks have been selected as sample of the study and five year financial statements of respective banks have been used for the study. The study has been divided into five chapters which include introduction, review of literature, research methodology, data presentation and analysis and summary, conclusion and recommendation. This study mainly based in secondary source of data although other related information were collected from the concerned banks, NRB, NEPSE, Securities Board of Nepal and different websites. The data have been analyzed by using financial and statistical tools.

The research is about comparative study on liquidity mobilization of BOK and EBL banks. The researcher has identified that research problem and set objectives to solve research problems about liquidity management of selected commercial banks as described in introduction chapter. The main objective of the study is to analyze the liquidity mobilization of sample banks. The specific objectives of the study are: to examine the liquidity mobilization of sample banks, to see the liquidity position and management of BOK and EBL banks, to find out the relationship between deposit, investment, loans and advances and net profit and to analyze the liquidity, asset and profitability ratio and lending efficiency ratio of BOK and EBL offer suitable suggestions based on findings of this study. The research is based on secondary source of data. There

related literatures have been reviewed for more effective. This section includes conceptual review and review of related studies. In conceptual review includes concept and meaning of liquidity, importance of liquidity, principle and theory of liquidity, demand and supply of bank liquidity etc. In the review of related studies includes review of books, journal and articles and review of previous thesis as well.

Research methodology has been described in third chapter, which is a way to solve the research problems with the help of various tools and techniques. This chapter includes the various financial as well as statistical tools to analyze the data. This chapter includes the research design, population and sample data collection procedure, data period covered and methods of analysis. These studies is mainly conducted on the basis of secondary data collected from annual reports of concern bank, official report, economic journal, financial statement etc.

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

The Banking sector plays an important role in the economic development of the country. This research is concerned about the comparative analysis of liquidity. The term liquidity refers to the funds like deposit, cash and bank balance, borrowing, debt and equity whatever bank has retain for short term investment or use. Liquidity is the ability of bank to meet its obligations on time, especially in relation to repayment of inter-bank borrowings and customer deposits. Liquidity management is a very crucial job of

commercial bank and the bank should maintain adequate amount of cash and bank balance to conduct daily operation and administrative purpose.

5.2 Conclusions

This research is conducted with the major objective of highlighting liquidity mobilization of BOK and EBL. Here make analyze in terms of liquidity, asset management, profitability and lending efficiency and other various ratio of sample banks as well as relevant financial and statistical ratios. Following conclusion has been drawn from the study.

For the analysis of liquidity position, the current ratio of BOK and EBL has fluctuating. The average current ratio of BOK and EBL are 1.046 and 1.558. The liquidity position of EBL is better than BOK. The EBL has well and BOK has low position of liquidity. The average cash and bank balance to total deposit ratio of EBL has higher ratio than the BOK, which shows its greater ability to pay depositors money. The cash and bank balance to current assets ratio of BOK and EBL are fluctuating. EBL has higher ratio than the BOK, which shows its greater ability to pay depositors money. The investments on government securities to current assets ratio of BOK and EBL have fluctuating. The average ratio of BOK is lower than EBL. It means EBL has invested more money in risk free assets than BOK. The loan and advances to total deposit ratio of BOK and EBL have fluctuating. BOK has higher ratio than that of EBL. It indicates the better mobilization of deposit by BOK as loan and advance. Total investment to total deposit ratio BOK has little higher ratio than EBL. It signifies that BOK has invested little more from its deposit than that of EBL. The loan and advances to total assets ratio BOK has higher ratio than EBL. It reveals that in total assets of BOK has high proportion as loan and advances. The investment on government treasury bills to total assets BOK and EBL have fluctuating. The ratio of EBL has little higher than BOK. It means EBL has invested more assets in risk free assets than BOK. The return on loan and advances ratio of BOK and EBL fluctuating form. The average return on total assets of BOK is higher than that of EBL. The return on its total assets of BOK seems successful. Return on equity ratio of BOK and EBL have fluctuating. The average ratio of EBL has higher than BOK. The

shareholders of EBL are getting higher return than BOK. The total interest earned to total asset ratio of BOK and EBL are increasing. The average total interest earned to total asset ratio of BOK is more than that of EBL. The interest earned to total outside assets ratio of both bank BOK and EBL are in increasing form. The EBL has little high interest earned to total outside assets ratio. Interest earned to operating income ratio of BOK has increasing whereas EBL has fluctuating. The higher ratio of EBL indicates the high contribution in operating income made by lending and investing activities and core banking activity. The interest paid to total asset ratio of BOK and EBL both banks have also increasing. The mean ratio of EBL is little more than that of BOK, so EBL seems ineffective in getting cheaper fund from the mean point of view. The credit risk ratio of BOK and EBL are fluctuating. The BOK has higher credit risk ratio. The liquidity risk ratio of the BOK and EBL are in fluctuating form. The average ratio of EBL is greater than that of BOK. EBL has sound liquid fund to make immediate payment to the depositors. The asset risk ratio of both banks BOK and EBL has fluctuating. The average credit risk ratio of BOK is higher than EBL. These ratios indicate the more assets riskier of BOK than EBL. In comparison, EBL is more efficient in asset management than BOK. The earning price per share BOK and EBL have fluctuating. EBL is better mobilizing it resources to get more earning per share. The EPS of EBL seems higher than BOK which indicates successful to generating higher EPS. The dividend per share of BOK and EBL are fluctuating. The average dividend per share of EBL is higher than BOK. It can be concluded shareholder of EBL getting higher dividend than that shareholder of BOK. Market price of the share of both bank BOK and EBL has decreasing which indicate low performance and expectation from company. Average price of EBL is higher than BOK. The price earning ratio of BOK and EBL are decreasing. The mean ratio of the BOK and EBL are 24.293 and 19.95 times. It indicates that for getting Rs 1 as earning, it should invest Rs 24.293 in BOK and Rs 19.95 in EBL. Here investors of BOK are getting better price because they are selling their shares in high price. So its better to sale share of BOK and purchase stock of EBL.

In the aspect of statistical analysis, the correlation between deposits and loan and advances of BOK and EBL are positive by 0.983 and 0.995. The relationship between

deposits and lending of BOK and EBL are significant. The correlations between total deposit and total investment of BOK and EBL have also positive. The relationship of BOK and EBL are also significant. The correlation between loan & advance and net profit of BOK and EBL are positive. The BOK and EBL have significant relationship between loan and advance and net profit. The correlation between total deposit and net profit of BOK and EBL are 0.934 and 0.985. Both banks have positive correlation but EBL has higher. The both BOK and EBL have significant relationship. The correlation of total deposit between BOK and EBL is positive. The 0.9841 of correlation coefficient shows that there is highly positive correlation between these two banks in this regard. The relation is also significant. The correlation between BOK and EBL of total investment has positive. It implies that the total investment of BOK and EBL move in same direction. The correlation coefficient is significant. The correlation between loan and advances of BOK and EBL is highly positive. The relationship between loan and advances of these two banks is significant. There is positive correlation between net profits of BOK and EBL which is indicated by correlation coefficient of 0.969. This shows the net profit of BOK and EBL interrelated. This relationship between net profits of BOK and EBL is significant. The trend of total deposit of BOK and EBL banks is in increasing trend. The rate of increment of total deposit of EBL is higher than BOK. The EBL has higher position in collecting deposit than BOK. Similarly the trend of loan and advances between BOK and EBL also increasing trend. The increasing trend of EBL is higher and aggressive than BOK. The trend of total investment of BOK and EBL also increasing trend. The increment of total investment of BOK and EBL are parallel. Similarly the trend of Net profit of BOK and EBL are increasing trend. The trend of increasing value of net profit of EBL is higher than BOK. The increment rate of net profit of EBL is higher than BOK. EBL is doing better in order to generate net profit during the projected study period although both BOK and EBL have increasing trend.

5.3 Recommendations

Based on the analysis and finding of the study, the following recommendations can be made as suggestions to make the liquidity mobilization of BOK and EBL effective and efficient. This would help to draw some outline and make reform in the respective banks.

- The commercial banks have to maintained liquid assets. The current ratio of EBL has better and BOK has considerable. This can be regarded as good liquidity position. The liquidity position affects external and internal factors such as prevalent investment situations, central bank requirements and so on. Considering the growth position of financial market, the lending policy management capabilities, strategic planning and fund flow situation, bank should maintain enough liquid assets to pay short-term obligations. So, it is recommended to maintain sound liquidity position to BOK.

- Government securities such as Treasury bills, Development bonds, saving certificates etc. are risk less investment alternatives because they are free of default risk as well as liquidity risk and can be easily sold in the market. In this research study, it has found that both banks, BOK and EBL have made some amount of fund in Government securities. But BOK and EBL are recommended to invest more funds in Government securities instead of keeping them idle.

- To get success in competitive banking environment, deposit must be utilized as loan and advances. The largest item of bank assets side is loan and advances. It has been found that loan and advances to total deposit ratio of EBL is little lower than that of BOK. Anyway both BOK and EBL are recommended to follow liberal lending policy and to invest more deposit in loan and advances.

- BOK and EBL have a possible risk because there is large amount of doubtful loan and advances and risky investment. The credit, liquidity and asset risk ratio of BOK is higher than EBL. So it is recommended to evaluate the investment opportunities and alternatives using statistical, capital budgeting and other financial tools to avoid large amount of doubtful debt and risk.

- Interest earning is main source of bank. So all bank focus on good lending and investing activities. Interest paid is main cost of banking activities. The interest paid to total assets of BOK is little lower than EBL. EBL seems ineffective in getting cheaper fund. However, BOK has been conscious in each year for getting

cheaper fund, anyway both bank recommended to be conscious about borrowing cheaper fund.

- EPS and DPS play a vital role to determine the market price of the share and also indicate the financial performance of banks. Higher EPS and DPS indicate the banks' sound financial position that would help them satisfy their stakeholders.

- Both the banks are recommended to formulate and implement the sound and effective investment policy to increase volume of total investment and loan and advances that helps to meet required level of profitability as well as social responsibility. The banks should consider rural areas in making investment policy.

- Political instability directly affected the economic sector such as hotel and tourism, manufacturing and trading sector. Bank loan and advances are decreasing in this sector. So banks should give priority to these sectors as well as create new investing sector to mobilize deposit.

- Banks should develop an innovative approach to marketing and formulate new strategies of serving customers in a more convenient and satisfactory way by optimally utilizing the modern technology and offering new facilities to the customers at competitive prices. Banks are also required to explore new market areas. For this purpose, it is recommended to form a strong market department in its central level, which deals with the banking products, places, price and promotion.

- In conclusion the EBL has better performance than BOK. EBL needs to retain back its consistency as there are many banks sprouting up in the Nepalese banking scenario and if it continues losing its consistency, it might be too late for them to rise up. It should keep up with its growth trend to give strong competition to all the banks in the industry. In the light of growing competition in the banking sector, both bank BOK and EBL should be customer oriented. It should strengthen and activate its marketing function as it is an effective tool to attract and retain the customers.

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- **www.sebonp.com 2013-2-5**
- **www.google.com 2012-5-15**

Appendix - 1

A. Calculation of Bank of Kathmandu Limited

Year(x)	Total deposit(Y)	X = x – 2009/10	X^2	XY
2007/08	15833.74	-2	4	-31667
2008/09	18083.98	-1	1	-18084
2009/10	20315.83	0	0	0
2010/11	21018.42	1	1	21018.4
2011/12	24119.45	2	4	48238.9
Tot n= 5	∑Y = 99371.42	∑X = 0	∑ X^2 = 10	∑XY = 19505.9

Source: Annual Report of BOK

Where,

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

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

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

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

Here, BOK

a = 19874.3

b = 1950.59

Y = 19874.3 + 1950.59*X of BOK

B. Calculation of Everest Bank Limited

Year(x)	Total deposit (Y)	X = x – 2009/10	X^2	XY
2007/08	23976.3	-2	4	-47953
2008/09	33322.95	-1	1	-33323
2009/10	36932.31	0	0	0
2010/11	41127.91	1	1	41127.9
2011/12	50006.1	2	4	100012
Tot n= 5	∑Y = 185365.57	∑X = 0	∑ X^2 = 10	∑XY = 59864.6

Source: Annual Report of EBL

Y= a + bx

Where,

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

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

EBL

a = 37073.1

b = 5986.46

Where as

Y = 37073.1 +5986.46 *X of EBL

Appendix - 2

A. Calculation of Bank of Kathmandu Limited

Year(x)	Loan and advances(Y)	X = x – 2009/10	X^2	XY
2007/08	12462.64	-2	4	-24925
2008/09	14647.3	-1	1	-14647
2009/10	16664.93	0	0	0
2010/11	17468.19	1	1	17468.2
2011/12	18813.94	2	4	37627.9
Tot n= 5	∑Y = 80057	∑X = 0	$\sum X^2 = 10$	∑XY = 15523.5

Source: Annual Report of BOK

Y= a + bx

Where,

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

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

BOK

a = 16011.4

b = 1552.35

Yc = 16011.4 + 1552.35*X of BOK

B. Calculation of Everest Bank Limited

Year(x)	Loan and advances(Y)	X = x – 2009/10	X^2	XY
2007/08	18339.09	-2	4	-36678
2008/09	23884.67	-1	1	-23885
2009/10	27556.36	0	0	0
2010/11	31057.69	1	1	31057.7
2011/12	35910.97	2	4	71821.9
Tot n= 5	∑Y = 136748.78	∑X = 0	$\sum X^2 = 10$	∑XY = 42316.8

Source: Annual Report of EBL

Y= a + bx

Where,

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

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

EBL

a = 27349.8

b = 4231.68

Where as

Yc = 27349.8 + 4231.68 *X of EBL

Appendix - 3

A. Calculation of Bank of Kathmandu Limited

Year(x)	Total Investment(Y)	X = x – 2009/10	X^2	XY
2007/08	3204.07	-2	4	-6408.1
2008/09	2783.6	-1	1	-2783.6
2009/10	3269.2	0	0	0
2010/11	4286.6	1	1	4286.6
2011/12	5246.68	2	4	10493.4
Tot n= 5	∑Y = 18790.15	∑X = 0	$\sum X^2 = 10$	∑XY = 5588.22

Source: Annual Report of BOK

Y= a + bx

Where,

Y= dependent variable

a = Y-intercept

b = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

BOK

a = 3758.03

b = 558.822

Yc = 3758.03 + 558.822 *X of BOK

B. Calculation of Everest Bank Limited

Year(x)	Total Investment(Y)	X = x – 2009/10	X^2	XY
2007/08	5059.56	-2	4	-10119
2008/09	5948.48	-1	1	-5948.5
2009/10	5008.31	0	0	0
2010/11	7743.93	1	1	7743.93
2011/12	7863.63	2	4	15727.3
Tot n= 5	∑Y = 31623.91	∑X = 0	$\sum X^2 = 10$	∑XY = 7403.59

Source: Annual Report of EBL

Y= a + bx

Where,

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

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

EBL

a = 6324.782

b = 740.359

Where as

Yc = 6324.782 +740.359 *X of EBL

Appendix - 4

A. Calculation of Bank of Kathmandu Limited

Year(x)	Net profit	X = x – 2009/10	X^2	XY
2007/08	361.49	-2	4	-722.98
2008/09	461.73	-1	1	-461.73
2009/10	509.63	0	0	0
2010/11	605.15	1	1	605.15
2011/12	607.66	2	4	1215.32
Tot n = 5	∑Y = 2545.66	∑X = 0	$\sum X^2 = 10$	∑XY= 635.76

Source: Annual Report of BOK

Y= a + bx

Where,

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

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

BOK

a = 509.132

b = 63.576

Yc = 509.132 + 63.576 * X of BOK

B. Calculation of Everest Bank Limited

Year(x)	Net Profit	X = x – 2009/10	X^2	XY
2007/08	451.22	-2	4	-902.44
2008/09	638.73	-1	1	-638.73
2009/10	831.77	0	0	0
2010/11	931.3	1	1	931.3
2011/12	1090.56	2	4	2181.12
Tot n= 5	∑Y = 3943.58	∑X = 0	∑ X^2= 10	∑XY = 571.25

Source: Annual Report of EBL

Y= a + bx

Where,

Y = dependent variable

A =Y-intercept

B = slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……. (I)

Where x = X - Middle year

Here,

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

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

EBL

a = 788.716

b = 157.125

Where as

Yc = 788.716 + 157.125 * X of EBL