CHAPTER – I
INTRODUCTION

1.1 Background of the Study

Financial infrastructure of our economy consists of financial intermediation, financial institutions and financial markets. Financial institutions lay an important foundation and play a role of catalysts in the progress of economic growth of the country. The present structure of financial institutions is based on the foundation laid by the commercial bank.

The role of commercial banks in every nation of the world is in pursuit of attaining the goal of rapid economic development. The ability of commercial bank to create credit and provide numerous banking services like deposit acceptance, overdraft facilities, market making, agency services, investment and general utility services is well appreciated by different sectors, that is why commercial bank prosper in all conditions. While addition of increasing horizon of work area and entrance of new market, innovative product and services put this bank a step ahead than any other types of banks and financial institutions.

One of the most important tasks in the management of any bank lies in ensuring adequate liquidity. A bank is considered to be liquid if it has already access to immediately spendable funds at reasonable cost at precisely the time those funds are needed. In other words, the bank either has the right amount of immediately spendable funds on hand i.e., cash or can raise the necessary funds by borrowing or by selling assets.

Managing liquidity is a fundamental component in the safe and sound management of all financial institutions. Sound liquidity management involves prudently managing assets and liabilities, both as to cash flow and concentration, to ensure that cash inflows have an appropriate relationship to approaching cash outflows. This needs to be supported by a process of liquidity planning which assesses potential future liquidity needs, taking into account changes in economic, regulatory or other operating conditions. Such planning involves identifying known, expected and potential cash outflows and weighing alternative asset/liability management strategies to ensure that adequate cash inflows will be available to the institution to meet these needs. Although the particulars of liquidity

management will differ among institutions depending upon the nature and complexity of their operations and risk profile, a comprehensive liquidity management program requires establishing and implementing sound and prudent liquidity and funding policies, and developing and implementing effective techniques and procedures to monitor, measures and control the institution's liquidity requirements and position.

However, keeping excess liquidity inversely affects the profitability of the business. Thus, neither too liquidity nor too high liquidity is viable for the business. Hence, the concern of the management should be in synchronizing the liquidity with the profitability of the business, as a result maximum profit can be achieved by keeping appropriate liquid assets.

The study also concerns on the measurement of liquidity and profitability position of the commercial banks in Nepal. For the study only five commercial banks have been analyzed.

1.1.1 Profile of the Selected Banks
a) Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited, formally known as Nepal Grindlays Bank Limited has been in operation since 1987. It is one of the topmost joint venture banks of Nepal. Capital structure of this bank is; 50 percent by Chartered Grindlays Bank, 33 percent by Nepal Bank Limited, the country's oldest and largest financial institutions and 17 percent by the Nepalese public. On July 31, 2000, Standard Chartered Bank Nepal Limited conducted the acquisition with ANZ Grindlays Bank Limited of the Australia and New Zealand Banking Group. With this acquisition, 50 percent shares of Nepal Grindlays Bank Limited (NGBL), previously owned by ANZ Grindlays Bank Limited, change the name of bank to Standard Chartered Bank Nepal Limited with effect from 16 July 2001.

Standard Chartered has a history of over 150 years in banking and operates in many of the world's fastest-growing markets in over 70 countries. Standard Chartered employs almost 75,000 people, representing over 115 nationalities, worldwide. This diversity lies

at the heart of the Bank's values and supports the Bank's growth as the world increasingly becomes one market.

With 16 points of representation, 17 ATMs and more than 350 local staff, Standard chartered Bank Nepal Ltd. is in a position to serve its customers through an extensive domestic network. In addition, the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking services in Nepal.

b) Nepal Arab Bank Limited

The arrival of NABIL Bank in Nepal on the 12th of July 1984 through a joint venture with Dubai Bank Ltd. under a Technical Service Agreement (TSA), marks a new dawn in the Nepalese banking industry. What is more admirable is with the opening of then Nepal Arab Bank Ltd, Customer Service or marketing took a U-turn. That in substance accelerated the evolution in banking products and services thereafter in Nepal. The bank commenced with a team of about 50 staff members and Rs. 28 million as capital. From the very inception in 1984 as the first joint venture bank to commence operations in Nepal, NABIL has been a leader in terms of bringing the very best international standard banking practices, products and services to the nation.

Today the bank's mission is to be the Bank of 1st Choice to all stakeholders. For the customers, the bank craves to be the first choice in meeting all financial requirements, for shareholders the bank wants to be the investment of choice, for Regulators to be an example of a model bank, and wants to be an outstanding corporate citizen in all the Communities and finally to be the first choice as an employer with whom to build a career.

Today NABIL Bank is a leader in the financial sector in Nepal with a network that has 26 points of representation spread across the nation; complimented by a network of ATMs and now NABIL Net and NABIL Tele the ease of access of accounts and information for our customers has never been more convenient. NABIL is a full service bank providing an entire range of products and services, starting with deposit accounts in local and foreign currency, Visa and MasterCard denominated in rupees and dollars, Visa Electron

debit cards, Personal Lending products for Auto, Home and Personal loans, Trade Finance products, Treasury services and Corporate Financing. NABIL aims to be able to meet entire gamut of financial requirements that is why the banks prides itself in being 'Your Bank at Your Service'.

c) Himalayan Bank Limited

The bank was incorporated in 1992 by a few distinguished business personalities of Nepal in partnership with Employees Provident Fund and Habib Bank Limited, one of the largest commercial Banks of Pakistan. Banking operation was commenced from January 1993. Himalayan Bank is the first commercial bank of Nepal whose maximum shares are held by the Nepalese private sector. Besides commercial banking services, the Bank also offers industrial and merchant banking services.

Himalayan Bank has a total network of 17 branches across the Country and a counter in the premises of the Royal Palace. There are six branches in Kathmandu Valley at the following locations: Thamel, New Road, Maharajgunj, Pulchowk (Patan), Suryavinayak (moved from Nagarkot) and Card Center in Pulchowk. In addition, the bank also has ten branches outside Kathmandu Valley in Banepa, Tandi, Bharatpur, Birgunj, Hetauda, Bhairahawa, Biratnagar, Pokhara, Dharan and Butwal. The Bank is aggressively opening new branches at different parts of the Kingdom to serve its customers better.

Himalayan Bank is always committed to providing a quality service, with a personal touch, to its valued customers. All customers are regarded as valued clients and treated with utmost courtesy. The Bank, wherever possible, offers tailored facilities to its clients, to meet unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers, Himalayan Bank has adopted the latest banking technology and runs the world class banking software Globus on IBM platform. The Bank can now boast of its state-of-the-art IT infrastructure with an identical Disaster Recovery System, offsite. This has not only helped the Bank to constantly improve its service level but has also prepared the Bank for future adaptation to new technology. The Bank already offers unique services such as Himal Remit, SMS Banking, Pre-paid Credit Cards and Internet Banking to customers and will be introducing more services like these in the near future.

d) Everest Bank Limited

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. EBL joined hands with Punjab National Bank (PNB), India as its joint venture partner in 1997.

Despite fragile law and order situation especially during last 3-4 years, the Bank has recorded spectacular performance. As per audited accounts of FY 2004/2005, the Bank's operating profit was Rs. 375.20 million registering a growth of 18.9 % over the previous year. The Bank's credit recorded a growth of nearly 30 % over the last year reaching a figure of Rs 7900.09 million. Similarly, the total deposits of the Bank posted a growth of 25.22 % amounting to Rs 10097.69 million over the preceding year.

The bank is providing its services through a wide network of 23 branches across the nation and over 250 correspondents across the globe. All the major branches of the bank are connected through Anywhere Branch Banking System (ABBS), a facility which enables a customer to do banking transactions from any of the branches irrespective of their having accounts in other branch.

The Bank in association with Smart Choice Technology (SCT) is providing ATM services for its customers. EBL Debit Card can be accessed at more than 50 ATMs and over 250 Point of Sales across the nation. The bank is also managing the SCT ATM at Tribhuvan International Airport for the convenience of the customers and the travellers, the first and the only bank in Nepal to place ATM outlet at the Airport.

Being the first Nepalese bank to open a representative office in Delhi, India, the Nepalese in India can open account in Nepal from the designated branches of Punjab National bank and remit their savings economically through banking channels to Nepal. The bank has a Drafts Drawing Arrangement with 175 branches of PNB all over India. With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries which enable quick remittance of

funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and UK.

The Bank recognizes the value of offering a complete range of services. We have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rentals), Home Equity Loan, Car Loan, Loan Against Shares, Loan Against Life Insurance Policies and Loan for Professionals. EBL have always endeavored in delivering innovative products suiting the consumer's requirements and needs thus enriching, enabling and beautifying their lives.

e) Nepal Investment Bank Limited

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

With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, has acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

） A group of companies holding 50% of the capital
） Rastriya Banijya Bank holding 15% of the Capital.
） Rastriya Beema Sansthan holding 15% of the Capital.
） The remaining 20% being held by the General Public.

NIBL, which is managed by a team of experienced bankers and professionals having proven track record, offers what one is looking for. The bank ensures that one's choice of

a bank will be guided among other things by its reliability and professionalism. The vision of the bank is to be 'the most preferred provider of Financial Services in Nepal.'

1.2 Statement of the Problem

Commercial banks collect money from the local people savings and grant those accumulate resources as loan and provide other wide variety of services. In today's globalize world economy, business without commercial bank is impossible. Bank is the heart of the commercial activities. Liquidity and profitability management is an important function of any business because it is the determinant of whether the entity will be in operation in the foreseeable future. Liquidity management is even more crucial as the lifeline of banking itself is money. For a bank, liquidity means having sufficient funds to meet regulatory, contractual and relationship obligations when required and at a reasonable cost to the bank.

Sufficient liquidity is a signal to the wider market as a whole that the bank is prudent, profitable and well managed. This helps to reduce the risk premium that a bank has to pay on its borrowed funds. However, more than enough liquidity is also harmful and thus invites profitability risk. Thus, proper liquidity and profitability management ensures that all of a bank's lending commitments are met. Assessing a bank's, liquidity position can be challenging. An adequate position for one bank may not be sufficient for another. Moreover, a position considered adequate for a bank in one time period may not be so in another. For the study, the following research questions have been raised;

a. Do the commercial banks are maintaining sufficient liquidity?
b. What is the trend of liquid assets and net profit?
c. Is there any relationship between liquidity and profitability?
d. To what extent does the cash balance, the most liquid assets, affect the net profit of the bank?

1.3 Objectives of the Study

The main objective of the study is to examine the liquidity and profitability position of the commercial banks of Nepal. The other specific objectives of the study are;

a. To analyze the trend of liquid assets maintained by the bank and the trend of net profit achieved.

b. To evaluate the cash reserve ratio maintained by the selected banks.

c. To analyze the profitability ratios, including return on shareholders' equity, total assets and deposit, of the selected banks.

d. To examine the relationship between net profit and cash and bank balance, and between net profit and total liquid assets.

1.4 Significance of the Study

The study will be mainly significant to the shareholders, depositors and other creditors to identify the productivity of their funds and to measure the risk associated with liquidity in the sampled banks. Likewise other financial agencies, e.g. stock exchange and stock brokers are also interested in the liquidity and profitability management of bank, as it has been listed in the stock exchange market. Besides them, the study will also help the management of the banks to synchronize the liquidity with the profitability and to make policy that can tussle with the competitors. The study will also be equally significant to the central bank to formulated the new liquidity policy, as there are certain loopholes as a result the chances of bankruptcy has been regarded as the main problem of financial institutions in these days.

1.5 Limitations of the Study

The major limitations of the study are as follows:

a. The study analyzes only the liquidity and profitability position of the commercial banks and hence does not touch the other financial aspects.

b. The study focuses only five banks, namely Standard Chartered Bank Nepal Limited, Nepal Arab Bank Limited, Himalayan Bank Limited, Everest Bank Limited, and Nepal Investment Bank Limited, which may not truly represent the whole population.

c. The study has been conducted using secondary data only and thus excludes analysis primary data. Further, the validity of the secondary data total depends upon the reliability of the annual reports of the bank.

d. The study covers only five fiscal years, i.e. from the fiscal year 2003/04 to 2007/08.

1.6 Chapter Scheme

The study has been organized into five chapters, each devoted to specific aspects of the study of liquidity and profitability in commercial banks. Each of these chapters is as follows:

Chapter One

Chapter one deals with the subject matters of the study. It consists of background of the study, statement of the problem, objectives of the study, significance of the study and limitation of the study

Chapter Two

It deals with review of literature. It includes a discussion on the conceptual framework on liquidity and profitability. It also reviews the major studies relating with liquidity and profitability of several authors/researchers and from the several books and journals.

Chapter Three

This chapter explains the research methodology used to evaluate liquidity and profitability position of commercial banks in Nepal. It consists of research design, population and sample, source of data collection, method of analysis financial tools and statistical tools used in the analysis.

Chapter Four

Chapter four fulfills the objective of the study by presenting data and analyzing them with the help of various statistical tools as per methodology. It is concluded with the findings of the study.

Chapter Five

It states summary, conclusion and recommendation of the study based on the data presentation and its analysis using the tools used in the analysis.

Besides these chapters, Bibliography and Appendix are also included at the end of the study.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Conceptual Framework

2.1.1 Liquidity Management

"Managing liquidity involves estimating liquidity needs and providing for them in the most cost-effective way possible. Banks can obtain liquidity from both sides of the balance sheet as well as from off-balance-sheet activities. A manager who attempts to control liquidity solely by adjustments on the asset side is sometimes ignoring less costly sources of liquidity. Conversely, focusing solely on the liability side or depending too heavily on purchased wholesale funds can leave the bank vulnerable to market conditions and influences beyond its control. Effective liquidity managers consider the array of available sources when establishing and implementing their liquidity plan." *(Khubchandani; 2002: 61)*

"Bank management should understand the characteristics of their funds providers, the funding instruments they use, and any market or regulatory constraints on funding. In order to accomplish this, management must understand the volume, mix, pricing, cash flows, and risks of their bank's assets and liabilities, as well as other available sources of funds and potential uses for excess cash flow. They must also be alert to the risks arising from funding concentrations." *(Dahal & Dahal; 2002: 39)*

2.1.2 Types of Liquidity
Mainly the liquidity of the firm are categorized under two headings. They are;

2.1.2.1 Asset Liquidity
"Banks typically hold some liquid assets to supplement liquidity from deposits and other liabilities. These assets can be quickly and easily converted to cash at a reasonable cost, or are timed to mature when the managers anticipate a need for additional liquidity. Liquid assets include those that can be pledged or used in a repurchase agreement.

Although management expects to earn some interest income on their liquid assets, their main purpose is to provide liquidity." *(Reed, Cotter, Gills & Smith; 1976: 35)*

A) Money Market Assets

"Money market assets (MMAs) are usually the most liquid of a bank's assets. MMAs include:

- Fed funds sold with an overnight maturity or term maturity within 30 days.
- Short-term Eurodollar deposits placed.
- CDs purchased, provided they are negotiable in the secondary market.
- Negotiable banker's acceptances purchased from banks with good credit standing. A banker's acceptance is a time draft drawn on and accepted by a bank. It is often used to facilitate trade transactions, is usually collateralized by merchandise, and is guaranteed by a bank." *(Reed, Cotter, Gills & Smith; 1976: 39)*

"Large banks generally hold a range of MMA instruments and may diversify their shorter term assets to improve yield or maintain market presence. Because large banks have access to wholesale funding sources, they often do not rely on MMAs for liquidity to the same extent as community banks. Large banks try to invest their excess liquidity in assets with longer terms or more credit risk to enhance earnings. For most community banks, MMAs are primarily Fed funds sold to their correspondents." *(Grywinski; 1991: 27)*

B) The Investment Portfolio

"A bank's investment portfolio can provide liquidity in three ways: (1) the maturity of a security, (2) the sale of securities for cash, or (3) the use of "free" securities as collateral in a repurchase agreement or other borrowing. For an investment security to be saleable, it must not be encumbered, i.e., the security cannot be sold under repurchase agreement or pledged or used as collateral, and it must be marketable. A "free" security is an instrument that can be used as collateral in a transaction. A security that is severely depreciated, a small face amount, already pledged or encumbered, or of poor credit quality is not a good candidate for collateral and should not be considered "free."

Because of these judgmental factors, the amount of free securities owned by a bank

cannot easily be determined from the general ledger, and levels are generally estimated. Periodically, management should analyze in detail the investment portfolio to validate the bank's estimates of free securities." *(Reed, Cotter, Gills & Smith; 1976: 40)*

For accounting purposes, investment portfolios are separated into two categories, available-for-sale (AFS) and held-to-maturity (HTM). These designations may affect how a bank uses its securities for liquidity purposes.

C) Cash Operating Accounts

"Operating accounts such as vault cash, cash items in process of collection, correspondent accounts, and the Federal Reserve account usually are not liquid assets in an ongoing institution. These accounts are needed to accommodate daily business transactions; if these funds are used, they must be replenished before further business activities are conducted. Most well- managed banks maintain the minimum balance needed to accommodate transactions in these accounts, since the balances do not generally earn interest." *(Reed, Cotter, Gills & Smith; 1976: 41)*

D) Reverse Repurchase Transactions

"In a securities purchased under resale agreement, also known as a "reverse repurchase agreement," a bank lends money to a counterparty by purchasing a security and agreeing to resell the security to the counterparty at a future date. This is an exchange of the most liquid asset (surplus cash) for a less liquid asset (a security). A reverse repo provides earnings to the lending bank with limited credit risk because the loan is collateralized." *(Grywinski; 1991: 30)*

2.1.2.2 Liability Liquidity

"Large regional and money center banks, and increasingly more community banks, rely heavily on liability liquidity. Larger banks generally have ready access to money markets and usually find that borrowing is the most economical way for them to meet short-term or unanticipated loan demand or deposit withdrawals. While community banks generally do not have the same broad access to money markets, their reliance on liability liquidity is increasing as the availability of core deposits continues to decline.

By managing liabilities instead of assets, banks can tailor liabilities to fit their cash flow needs instead of apportioning asset types and amounts to a given liability base." *(Bedi and Mardikar; 1993: 65)*

A) Retail Funding

"Retail funding is supplied by the deposits a bank receives from the general public, primarily consumers and small businesses. These deposits are most banks' primary funding source and for many banks continue to be a relatively stable source of funds. Retail funds providers usually maintain balances of $100,000 or less, to be fully insured by the FDIC. Retail accounts include:

⌡ Transaction accounts such as demand deposit accounts (DDAs), negotiable order of withdrawal accounts (NOWs), or money market demand accounts (MMDAs); and

⌡ Savings accounts and time certificates of deposit (CDs)." *(Bedi and Mardikar; 1993: 66)*

B) Wholesale Funding

"Many banks are increasing their use of wholesale funding, replacing lost retail deposits with funds provided by professional money managers. Wholesale funds providers are typically large commercial and industrial corporations, other financial institutions, governmental units, or wealthy individuals. Wholesale funds transactions are typically not insured or are in amounts that exceed the FDIC insurance limit. As a result, these funds are generally very sensitive to credit risk and interest rates, and pose greater liquidity risk to a bank." *(Singh; 2005: 15)*

C) Other Debt Securities

"Many large banks also use other debt securities to provide longer-term sources of funds. Under the provisions of the Gramm-Leach-Bliley Act (GLBA), if a bank is one of the 100 largest insured banks and owns a financial subsidiary, it must have outstanding

"eligible debt" that is rated in one of the three highest investment grade rating categories by a nationally recognized statistical rating organization." *(Singh; 2005: 15)*

2.1.3 Strategy for Liquidity Management

Liquidity Management is a tough task to be discharged by the management of every business entity. Inadequate liquidity tarnishes the image of the organization while excess liquidity is detrimental to the profitability.

Objective of liquidity management:
- ⟩ To meet maturing liabilities
- ⟩ To minimize the cost of fund
- ⟩ To improve liquidity
- ⟩ To improve the return on investment

In order to achieve the said objectives, banks adopt following strategies:
- ⟩ Asset Management
- ⟩ Liability Management
- ⟩ Asset Liability (Funds) Management

The liquidity management strategies should be supported by the following:
- ⟩ Prediction of Liquidity Needs
- ⟩ Most Productive Use of Liquid Assets
- ⟩ Maintenance of Protective Liquidity
- ⟩ Effective Liquidity Mobilization
- ⟩ Secured Loans and Advances and Investment Portfolio
- ⟩ Rapport with Corporates and Financial Institutions

2.1.4 Importance of Liquidity Management

"Liquidity risk is a greater concern and management challenge for banks today than in the past. Increased competition for consumer deposits, a wider array of wholesale and capital market funding products, and technological advancements have resulted in structural changes in how banks are funded and how they manage their risk." *(Natarajan; 2001: 87)*

"In particular, two recent trends in funding make it more important for banks to actively manage their liquidity risk: 1) the increased use of credit-sensitive wholesale funds providers and 2) the growth of off-balance-sheet activity." *(Mishra; 2003: 31)*

"Traditionally, banks have relied upon retail transaction and savings accounts as a primary funding source. These deposits generally represent a stable and low-cost source of funds. However, for the past several years, core deposits as a percentage of assets have steadily declined. More recently, the absolute growth of core deposits has been flat and may well decline in the future as retail consumers continue to evaluate the variety of competing savings vehicles and their relative returns. The growth in, and consumers' acceptance of, Internet banking and other electronic technologies may accelerate this trend by making it easier for consumers to compare rates and to transfer funds between competing institutions easily and rapidly." *(Mishra; 2003: 32)*

"Banks are successfully adjusting to this secular shift by using market sources, to meet loan demand and investment needs. By using market sources, banks are able to diversify their funding bases among funds providers and across maturities. Unlike core deposits, whose maturities are generally determined by the preferences of depositors, funds in the professional markets can be accessed at a variety of tenors. The many choices among market funding alternatives have provided banks with greater flexibility in managing their cash flows and liquidity needs.

Increased reliance on market funding sources, however, has left banks more exposed to the price and credit sensitivities of major funds providers. As a general rule, institutional funds providers are more credit sensitive and will be less willing than retail customers to provide funds to a bank facing real or perceived financial difficulties. A bank's ability to access the capital markets may also be adversely affected by events not directly related to them." *(Natarajan; 2001: 89)*

"Along with the shift from relatively credit-neutral to credit- sensitive funds providers, banks have turned increasingly to asset securitization and other off- balance-sheet strategies to meet their funding requirements. As these off- balance-sheet activities have grown, they have become increasingly important in the management and analysis of liquidity. These activities can either supply liquidity or increase liquidity risk, depending on the specific transaction and the level of interest rates at the time." *(Ivamy; 1993: 132)*

2.1.5 Liquidity Risk

"Liquidity risk is the risk to a bank's earnings and capital arising from its inability to timely meet obligations when they come due without incurring unacceptable losses. Bank management must ensure that sufficient funds are available at a reasonable cost to meet potential demands from both funds providers and borrowers. Although liquidity risk dynamics vary according to a bank's funding market, balance sheet, and inter corporate structure, the most common signs of possible liquidity problems include rising funding costs, requests for collateral, a rating downgrade, decreases in credit lines, or reductions in the availability of long-term funding.

The sophistication of a bank's liquidity management process will depend on its business activities and overall level of risk. However, the principles of liquidity management are straightforward: a well-managed bank, regardless of size and complexity, must be able to identify, measure, monitor, and control liquidity risk in a timely and comprehensive manner." *(Khan and Jain; 1997: 97)*

2.1.6 Early Warning Indicators of Liquidity Risk

"Management should monitor various internal as well as market indicators of potential liquidity problems at the bank. These indicators, while not necessarily requiring drastic corrective action, may prompt management and the board to do additional monitoring or analysis." *(Varshney & Swaroop; 1994: 27)*

"An incipient liquidity problem may first show up in the bank's financial monitoring system as a downward trend with potential long-term consequences for earnings or capital. 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.

⟩ A decline in indicators of asset quality.

⟩ A decline in earnings performance or projections.

⟩ Rapid asset growth funded by volatile wholesale liabilities or brokered deposits."
(Varshney & Swaroop; 1994: 28)

"Professional analysts and other market participants may express concerns about the bank's credit capacity. Examples of these third-party evaluations include:

⟩ Bank is named in market rumors as a "troubled" bank.

⟩ Downgrades of credit rating by rating agencies.

⟩ Customers are contacting relationship managers, fixed income sales representatives, and branch employees requesting information.

Bearish secondary market activity in the bank's securities may signal declining value. Examples of these market events include:

⟩ Drop in stock price.

⟩ Wider secondary spreads on the bank's senior and subordinated debt, and increasing trading of the bank's debt.

⟩ Brokers/dealers are reluctant to show the bank's name in the market, forcing bank management to arrange "friendly" broker/dealer support." *(Chopra; 1989: 35-38)*

"Finally, the bank's funding market may begin to contract or demand credit support, better credit terms, or shorter duration lending, any of which may increase liquidity costs. Examples of funding deterioration are:

﹚ Overall funding costs increase.

﹚ Counterparties begin to request collateral for accepting credit exposure to the bank.

﹚ Correspondent banks eliminate or decrease credit line availability, causing the bank to make larger purchases in the brokered funds market.

﹚ Volume of turndowns in the brokered markets is unusually large, forcing bank to deal directly with fewer willing counterparties.

﹚ Rating-sensitive providers, such as trust managers, money managers, and public entities, abandon the bank.

﹚ Counterparties and brokers are unwilling to deal in unsecured or longer dated transactions.

﹚ Transaction sizes are decreasing, and some counterparties are unwilling to enter into even short-dated transactions.

﹚ Bank receives requests from depositors for early withdrawal of their funds, or the bank has to repurchase its paper in the market." *(Chopra; 1989: 40)*

"When evaluating a bank's potential liquidity risk, the examiners will consider not only the factors considered by bank management but also a bank's current position and trends in the following ratios:

﹚ Loans to deposits.

﹚ Short-term liabilities to total assets.

﹚ On-hand liquidity.

﹚ Dependence or reliance on wholesale funding." *(Varshney & Swaroop; 1994: 31)*

2.1.7 Relationship of Liquidity Risk to Other Banking Risks

"Bankers and examiners must understand and assess how a bank's exposure to other risks may affect its liquidity. The nine categories of risk are credit, interest rate, liquidity, price, foreign currency translation, transaction, compliance, strategic, and reputation. These

categories are not mutually exclusive any product or service may expose the bank to multiple risks and a real or perceived problem in any area can prevent a bank from raising funds at reasonable prices and thereby increase liquidity risk." *(Johnson; 1940: 132)*

"The primary risks that may affect liquidity are reputation, strategic, credit, interest rate, price, and transaction. If these risks are not properly managed and controlled, they will eventually undermine a bank's liquidity position." *(Johnson; 1940: 133)* A brief description of how these risks may affect liquidity is provided below.

A) Reputation Risk

"Reputation risk is the current and prospective impact on earnings and capital arising from negative public opinion. A bank's reputation for meeting its obligations and operating in a safe and sound manner is essential to attracting funds at a reasonable cost and retaining funds during troubled times.

Negative public opinion, whatever the cause, may prompt depositors, other funds providers, and investors to seek greater compensation, such as higher rates or additional credit support, for maintaining deposit balances with a bank or conducting any other business with it. If negative public opinion continues, withdrawals of funding could become debilitating.

To minimize reputation risk and its potential impact on liquidity, bank management should assess the bank's reliance on credit-sensitive funding. A bank that is exposed to significant reputation risk should seek to mitigate liquidity risk by diversifying the sources and tenors of market funding and increasing asset liquidity, as appropriate." *(Johnson; 1940: 134-135)*

B) Strategic Risk

"Strategic risk is the current and prospective impact on earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes. No strategic goal or objective should be planned without considering its impact on a bank's funding abilities. The bank must be able to

raise money required to meet its obligations at an affordable cost. The ability to attract and maintain sufficient liquidity is often an issue at banks experiencing rapid asset growth. If management misjudges the impact on liquidity of entering a new business activity, the bank's strategic risk increases. Management should carefully consider whether the funding planned to support a strategic risk initiative will increase liquidity risk to an unacceptable level." *(Johnson; 1940: 136)*

C) Credit Risk

"Credit risk is the current and prospective risk to earnings or capital arising from an obligor's failure to meet the terms of any contract with the bank or otherwise to perform as agreed. A bank that assumes more credit risk, through asset concentrations or adoption of new underwriting standards in conjunction with untested business lines, may be increasing its liquidity risk. Credit-sensitive funds providers may worry that the bank's increased credit exposure could lead to credit problems and insufficient profits. The bank's ability to meet its obligations may eventually be compromised.   Wholesale funds providers and rating agencies consider the level of past-due loans, nonperforming loans, provisions to the allowance for loan and lease losses, and loan charge-offs as indications of trends in credit quality and potential liquidity problems. If credit risk is elevated, the bank may have to pay a premium to access funds or attract depositors. If credit risk has undermined the bank's financial viability, funding may not be available at any price. Most large bank failures have involved the combined effects of severe credit and liquidity deterioration." *(Johnson; 1940: 138)*

D) Interest Rate Risk

"Interest rate risk is the current and prospective risk to earnings or capital arising from movements in interest rates. Changes in interest rates affect income earned from assets and the cost of funding those assets. If a bank experiences a reduction in earnings from a change in market interest rates, funds providers may question the financial stability of the bank and demand a premium. They may even refuse to provide funding.

Off-balance-sheet instruments that a bank uses to manage its interest rate risk may also pose liquidity risk. The cash flows of those instruments often are very sensitive to changes in rates, and, if not properly managed, can result in unexpected funding

requirements or other cash outflows during periods of volatile interest rates." *(Crosse; 1963: 89)*

E) Price Risk

"Price risk (or market risk) is the risk to earnings or capital arising from changes in the value of traded portfolios of financial instruments. Price risk may result in volatile earnings. This risk is most prevalent in large banks that actively trade financial instruments. Price risk is closely monitored by funds providers when assessing a bank's financial position and creditworthiness. If price risk and its perceived impact on earnings or capital is too great, funds providers may require the bank to pay increased rates for funds, may not be willing to invest in longer term maturities, or may not be willing to provide funding on any terms." *(Crosse; 1963: 91)*

F) Transaction Risk

"Transaction risk is the current and prospective risk to earnings and capital arising from fraud, error, and the inability to deliver products or services, maintain a competitive position and manage information. Systems that directly affect liquidity include wire transfer systems for check and securities clearing, electronic banking, and operations governing credit, debit, and smart card usage. If product lines change, management must adjust the systems to ensure that all transactions can be handled. Significant problems can develop very quickly if the systems that process transactions fail or delay execution. If customers have difficulty accessing their accounts, they may close them, which will diminish liquidity. Transaction risk should be considered in the bank's contingency planning process." *(Crosse; 1963: 93)*

2.1.8 Profit & Profitability

"In business, profits are the excess of revenue over cost. In other words, business profits are the residual income, which is equal to sale proceeds minus costs. In a simple term, profits mean the residual balance of earning expected to be available with the firm that is obtained after deducting entire expenses, costs, charges and provision from total revenue of a period of time. Profit is the resources left to the firm for future growth and expansion or reward to be distributed to the entrepreneurship in

the form of dividends." *(Richard; 1996: 80)*

2.1.9 Need for Profit

Profit is a must for the following reasons:

A) Measurement of Performance

"Profit is only one factor to measure the management efficiency, productivity and performance. Profit is the most widely used yardstick to see what really is to be achieved and where the firm is to go in the future." *(Saunders & Cornett; 2004: 61)*

B) Premium to Cover Costs of Staying in Business

"Business environment is full of risks and uncertainties. To grasp the globally changing technologies, to stay in the market uncertainties, to replace and acquire assets and enhancing business scope etc. require a profit margin." *(Saunders & Cornett; 2004: 61)*

C) Ensuring Supply of Future Capital

"Profit is necessary to plough back in the investments like innovations, business expansion and self-financing. It also attracts investors for further investment." *(Mishkin; 1998: 26)*

D) Return to the Investors

"Shareholders provide equity capital to the business because they expect the entity will provide return to their funds at least equal or above market rate of return. To maintain the shareholders expectation, it is most important that a firm should earn sufficient profit so that it can distribute dividends." *(Mishkin; 1998: 26)*

2.1.10 The Trade-Off Between Liquidity and Profitability

The importance of the liquidity and profitability in a bank is paramount. They are recognized as two wheels of a cart because in the absence of any of them, the bank can not forge ahead. However, there is a practice of treating them as antagonistic to each other because liquidity is maintained at the cost of profitability and vice versa.

Liquidity risk is the risk that the bank will not have the funds it needs, at reasonable cost, to meet excess withdrawals or to make loans. The banker, on the other hand, generally determines lonable funds from the available funds after adjusting statutory and legal reserves. Since majority of funds collected by banks are almost cost sensitives funds, it can not hold such funds for the long period without any earnings. Therefore, the bank has to take immediate action against such funds. However, the bank cannot overlook the transaction that can occur in its liability, i.e., withdrawls more than expection or assumption.

The management of such asset and liability in a efficient way is a challenging part for the bank managers. The bank managr cannot equalize the demands for funds and supply of funds during the market movement. Hence, the management of funds with maximum earnings with adequate cash for managing cash demands is the question to be answered by the banker in a present competitive environment.

In spite of innovation of several strategies to mathematical modalities, there is no specific techniques derived yet that can handle the liquidity easily along with optimum profitability. Therefore, the trade off point is that point when the bank will be earning at optimum point and the supply of funds is exactly to the demands for funds which is impossible in the present industrial trend.

Basically, the bank should be aware of the excess supply of funds and excess demands of funds in order to move nearest towards the accuracy of trade off between the liquidity and profitability. The banks should not maintain idle funds to meet cash obligations while cannot extend investment without considering the demand for cash. The synchronization of these two variables maximizing the profitability and defaulting the cash obligation should be the main strategy of bank. In order to cope up with this problems, small banks generally rely on asset management while large banks rely liability management, Both the strategies must be aware of cost of funds- the cost of disposing in the previous strategy whereas the cost of funds in the latter strategy.

Similarly, the bank cannot neglect other risks as well such as market risk and credit risk in relation with the trade off between the liquidity and profitability. The tackling of both risks is always influenced by the size of the banks. Market risk can be managed through hedging if available such as position in financial futures, options, or swaps. Bank regulations also impose some degree of diversification by limiting maximum loan to any one borrower or under a particular head that also assist in co-coordinating the trade off between the profitability and liquidity of a bank.

2.1.11 Profitability of Commercial Banks

"Unlike in any other organizations, there are various forms of stakeholders in the Bank. So, the bank also has to make the best efforts to meet the interests of the stakeholders. The majority of the needs of the stakeholders are related with the profitability of the banks. For example, in case the bank earns profits, the investors get dividends, employees get bonus, government gets benefits in forms of taxes etc. Thus, the foremost objective of the banks is the profit maximization.

The major source of funds of the bank is the public deposit. The bank in most of the cases has to pay certain rate of interest to the public in their deposit. Thus, the banks have to mobilize these funds in the profitable sectors, which derive maximum return on the assets. Hence, the investment or granting of loan and advances by them are highly influenced by profit margin. The profit of the bank is dependent on the interest rate, volume of loan and time period of loan. However, the bank at the same time has to ensure that their investment is safe from default.

Although the banks have to invest in order to earn profits. But, at the same time have to set aside some of its fund in order to maintain their liquidity. As the major source of bank's fund is public deposits, the bank has to be able to allow the depositors to withdraw their deposit in terms of need. Thus, the bank cannot invest all its funds in the profitable sectors. Thus, a successful bank is one who invests most of its funds in different earning asset standing safely from the problem of liquidity i.e. keeping cash reserves to meet the daily requirements of the depositors. Lower the liquidity, higher the profitability and higher the liquidity, lower the profitability. So, profitability and

liquidity maintain a highly negative co-relation. Since both are equally important, banks cannot afford to ignore any of them. So, the management has to make a crucial decision regarding a mixture of liquidity and profitability." *(William; 1990: 32-34)*

2.1.12 Theories of Profit

Economists have propounded several theories of profits to explain profits of entrepreneurs. Most of the theories are centered on the controversy about the role of the entrepreneur. In the following section some of the fundamental theories of profit has reviewed in brief.

A) Theory of Risk and Uncertainty Bearing

It was F.B. Hawley who first developed the theory of risk bearing and concluded that profit is a reward of the entrepreneurs for bearing risks. But, the theory was picked up by Professor F.H. Knight who divided risks into insurable and non-insurable risks and concluded that profit is a reward for bearing non-insurable risks and uncertainties. Thus according to Knight, profit is a reward to the entrepreneur for his non-transferable function of bearing non-insurable risk and uncertainties.

B) Dynamic Theory of Profit

This theory was propounded by J.B. Clark. According to this theory, 'dynamic changes' in the economy are the basic causes of emergence of profits. There is no profit in a static economy as no changes take place. In a dynamic economy there are constant changes in population, capital, methods of production and industrial set up. These changes multiply wants of consumers, which earn profits to the entrepreneur.

C) Innovation Theory of Profits

Joseph Schumpeter singled out 'innovation' form the dynamic theory of profits and developed the innovation theory of profits. According to Schumpeter changes take place in a dynamic economy and innovation in the changing world gives rise to profits. In his vies, the entrepreneur plays an important role of introducing innovation in an economy and profits are the rewards for his role as an innovator. The

innovation could be changes or techniques that reduces cost of production or increases demand for the product.

2.2 Review of Journal and Articles

Davis Philips (2003) in his article "*Liquidity Management in Banking Crisis*" had stated that liquidity risk is that asset owner unable to recover full value of asset when sale desired. Bank liquidity is the ability of institution to meet obligations under normal business conditions. He further suggests the tools for protecting against bank liquidity i.e. holding liquid assets (net defensive position cost in terms of lower profitability), dissipating withdrawal risk by diversifying funding sources (liability Management), seeking low volatility ratio: VL–LA/TA-LA, where VL volatile liabilities, LA liquid assets, TA total assets, important role of supervision & reserve requirements also money market infrastructure ensuring liquidity maintained.

He had also pointed out the liability management diversification to reduce liquidity risk- CDs, Eurodollars, securitization, subordinated debt as well as inter bank time & demand deposits. Lender of last resort- institution such as the central bank, which has the ability to produce at its discretion currency or 'high powered money' to support institution facing liquidity difficulties, to create enough base money to offset public desire to switch into money during a crisis & to delay legal insolvency of an institution. His conclusion was liquidity risks are endemic to banking given the maturity transformation they undertake. First line of defense should be appropriate liquidity policy an asset & liability side, supported by adequate capital & firm supervision. Role of lender of last resort in non crisis period is to avoid unnecessary failure, with suitable safeguards for central bank balance sheet & to minimize moral hazards.

Leonard Matz (2004) in his article *"Liquidity Risk Management and Self Paced A/L Management"* undoubtedly suggested that the quantity of liquidity you have or can get must be related to the quantity of liquidity that you think you may need. The quantity of liquidity that you need is, mainly, the sum of current liabilities you may lose plus new assets you have to fund. Liquidity Risk, the amount of liquidity you might need, is highly scenario specific. Liquidity cannot be intelligently measured without using

scenario analysis. Sources available in some scenarios are less available or unavailable in others.

He emphasized that the essences of liquidity risk is cash flow. Therefore, fundamentally, liquidity gap analysis is simply an evaluation of the two requirements: "enough money" and "when we need it". Liquidity risk management tactics are more vital than managing the time profiles of maturing liabilities. He conducted four essential Liquidity Management tools: always keep some asset liquidity reserve, extend liability terms to reduce liquidity risk, be prepared to enhance liquidity quickly at the first signs of increased potential need and manage cash flow profiles.

He further recommended that banks should analyze the likely impact of different stress scenarios on their liquidity position and set their limit accordingly. Limits should be appropriate to the size, complexity and financial condition of the bank. Management should define the specific procedures and approvals necessary for exceptions to policies and limits. The liquidity strategy should set out the general approach the bank will have to liquidity, including various quantitative and qualitative targets. This strategy should address the bank's goal of protecting financial strength and the ability to withstand stressful events in the marketplace. Optimal management of liquidity requires a delicate balance between liquidity risk and income. No bank can hold enough liquidity to survive anything close to a "worst case" liquidity crisis. The penalty for too little liquidity may be the failure of the bank but too much liquidity carries a penalty as well. So, liquidity risk is highly idiosyncratic, arbitrary and inconsistent.

Harish Shrestha (2007) in his article "*The Efficiency of Liquidity Monitoring and Forecasting Framework the Nepal Rastra Bank in the Context of Liquidity Management in the Nepalese Banking and Financial System*" has stated liquidity management as the part of risk management framework of financial services industry. He found taking high liquidity risk as well as high credit risk are two main factors that cause banks to fail. Although high liquidity risk alone is not likely to cause banks failures, a liquidity crisis usually signals a need for change. He concluded proper

liquidity management ensures that banks and financial institutions' financial commitments and obligations are met.

Maintaining adequate liquidity also helps in avoiding forced sale of assets. The need for bank liquidity stems from seasonal, cyclical trend and short-term irregular movements in deposits and loans. The different sources available to meet these liquidity needs were identified and grouped into asset and liability liquidity sources. The treasury manager must consider the purpose of the liquidity need, the length of time for which funds are needed, the access to liability markets, the cost and the characteristics of various liquidity sources and interest rate forecasts.

Jacob Walt (2008), in his article, "*Sound practices for Managing Liquidity in Banking Organizations"* attributed Liquidity, or the ability to fund increases in assets and meet obligations as they come due, is crucial to the ongoing viability of any banking organization. Sound liquidity management can reduce the probability of serious problems. Indeed, the importance of liquidity transcends the individual bank, since a liquidity shortfall at a single institution can have system – wide repercussions. For this reason, the analysis of liquidity requires bank management not only to measure the liquidity position of the bank on an ongoing basis but also to examine how funding requirements are likely to evolve under various scenarios, including adverse conditions.

2.3 Review of Thesis

⟩ "*A Study on Investment & Liquidity Position of Joint Venture Commercial Banks in Nepal*".(2004). The main objective of the study was to evaluate liquidity and investment of commercial bank.

The researcher has found that the commercial banks did not have constant and consistent liquidity along with the investment policy. He further suggests that bank should maintain an appropriate level of liquid assets in relation to the sources of fund and statutory obligation. The banks are adopting discretionary fund management

approach and are adhering to theory of shift ability while investing on marketable securities. Anticipating income approach should also be adopted in case of long- term loan.

⌡ *"Financial Performance of Commercial Bank with Special Reference to Himalayan & NABIL Bank Ltd."*(2007). The main objective of the study is to analyze the liquidity position & the profitability of these two banks.

The researcher has found that the high liquidity ratios are maintained by this banks. The measurement of assets management has revealed that the total liability to total assets of HBL has the highest ratio than of NABIL. She has also found that considering EPS, performance of HBL is better than NABIL but comparing net profit and shareholders' equity, the performance of NABIL is better. She concludes that the overall liquidity ratio of NABIL is better; it has low degree of surviving capacity in the adverse liquidity position caused by interest sensitive deposit.

⌡ *"Liquidity Management of Himalayan Bank Limited"* (2006). The main objective of the study is to visualize and analyze the Liquidity position of Himalayan Bank.

Analyzing liquidity ratio of HBL, researcher has found that the bank is able to meet its short-term obligations. The bank has also maintained the cash, cash equivalent and bank balance, balance in Nepal Rastra Bank, money at call, investment in government securities to meet daily cash requirements. Lastly, he suggests that HBL has to rethink & reorganize major strategies on resources collection and mobilization.

2.4 Research Gap

All of the above research made were mainly concentrated on the liquidity management of the bank, and thus has totally ignored the impact of liquidity in profitability, which is the ultimate goal of each organization. Thus, to fulfill such gap, this study has been carried out. The study shows the interrelationship between liquid assets on net profit and the impact of maintaining cash and bank balance on net profit of the selected bank. Further, the study focuses on the various liquidity and profitability ratios that truly delineate the

liquidity and profitability position of the banks.

Chapter – III

Research Methodology

3.1 Research Design

This research work tried to analyze the liquidity and profitability position of the commercial banks of Nepal. The present study consists of analytical as well as descriptive design. The study was based on secondary data only. Only five commercial banks were taken into account, which represent almost same strategic groups. Financial as well as statistical tools were used to analyze and interpret.

3.2 Population and Sample

In the present context, there are 26 commercial banks operating in Nepal. The study of all these banks within this research was almost impossible. Hence, considering these number of banks as total population, five commercial banks, namely Standard Chartered Bank Nepal Limited (SCBNL), Nepal Arab Bank Limited (NABIL), Himalayan Bank Limited (HBL), Everest Bank Limited (EBL) and Nepal Investment Bank Limited (NIBL), within from these total population has been taken as sample and tried to achieve the objectives set out by analyzing the data. Thus the sample taken represents 19% of the total population.

3.3 Sources of Data

Since the study is based on the secondary data, the data were collected from various sources. Mainly the secondary data was collected by reviewing the annual reports, brochures, prospects of the concerned banks and the official websites of the respective banks.

3.4 Data Processing and Presentation Procedure

The information or data obtained from the different sources in raw form. From that information, direct presentation was not possible so it was necessary to process data and

converts it into required from. Only after than the data were presented for this study. For presentation different tables were used. Similarly in same case graphical presentation were also made. So far as the computation was concerned, it has been done with the help of using Microsoft Excel.

3.5 Data Analysis Tools

Liquidity and Profitability position of the banks is analyzed with two important tools. The first most important tool is the financial tool, which includes ratio analysis and another is a statistical tool.

3.5.1 Financial Tools

The following financial ratios are going to be analyzed under the liquidity and financial position analysis of selected five commercial banks.

A) Liquidity Ratio

Liquidity ratio is a rigorous measure of a firm's ability to serve its short-term obligation. It reflects the short-term financial solvency of a firm as a whole or it is employed as a measurement of a company's liquidity position. The firm should remain an appropriate liquidity neither excess nor less to meet its short-term obligation when they become due. Inadequate liquidity can lead to unexpected cash short falls. A very high degree of liquidity is also not good as ideal assets earn nothing, leading to fewer assets yield and contributing to poor earning performance. Important liquidity ratios that have been used in the study are listed below:

Liquid Assets Trend

Each bank makes the provision of keeping liquid assets to meet the short term liability. Hence the trend of liquid assets in the bank will be measured under this heading. The liquid assets include only those asset that can be easily turned into cash.

Current Ratio

The current ratio is the ratio of total current assets to total current liabilities. Current ratio measure the short-term solvency, i.e. its ability to meet short-term obligation or as a

measure of creditors versus current assets. The current ratio is calculated by dividing current assets by current liabilities.

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

c. Cash and Bank Balance to Total Deposits Ratio

Cash and bank balance to total deposits ratio measures the capacity of bank to meet unexpected demand made by depositors, i.e. current account holders, saving depositors, call and other depositor. This ratio is computed by using the following formula:

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

d. Cash Reserve Ratio (CRR)

Each bank has to keep the cash reserve ratio as directed by the NRB. The CRR ratio as per the NRB should be 6% in the fiscal year 2003/04 and 5% from then. The cash reserve ratio is calculated by using the following formula.

$$\text{CRR} = \frac{\text{Cash and Bank Balance}}{\text{Total Local Deposit}}$$

e. Fixed Deposit Total Deposit Ratio

Fixed deposit is a long-term and high interest bearing deposit. More fixed deposit may be an advantage if it can be invested in long-term credit. This ratio is calculated in order to find out the proportion of fixed deposit in total deposit. Fixed deposits are long-term deposit and banks can mobilize them on investment, loans and advances.

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

f. Current Deposit to Total Deposit Ratio

Current deposit is short-term non interest bearing deposit. Current deposit is generally regarded as short-term obligation as it can be withdrawn without prior notice or with short notice.

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

B) Profitability Ratio

Profit is the ultimate output of a company and its existence is not justified if it fails to make sufficient profit. Therefore the company should continuously evaluate the efficiency of the company in terms of profit. The profitability ratios are calculated to measure the operating efficiency of the company. Generally, two major types of profitability ratios are calculated:

a) Profitability in relation to sales

b) Profitability in relation to investment.

Net Profit Trend

The goal of each bank is to maximize profit. Thus, this analysis depicts the comparative efficiency of the banks in gaining highest profit. Obviously, the high profit is favorable

Net Profit Margin

Net profit margin indicates margin of compensation left to the owners for providing their capital, after all expenses have met. It helps in determining the efficiency with which the affairs of the business are being managed. A net profit margin would enable the firm to withstand adverse economic conditions and low margin will have opposite implications.

$$\text{Net Profit Margin} = \frac{\text{NPAT}}{\text{Interest Income}}$$

b. Interest Income to Loan and Advances

The bank grants loan and advances for the sole reason to gain interest income. Thus, to examine how far the bank has been able to manage the loan and advances in earning interest income, the ratio of interest income to loan and advances has been determined.

$$\text{Interest Income to Loan and Advances} = \frac{\text{Interest Income}}{\text{Total Loan and Advances}}$$

Return on Shareholders' Equity

Return on shareholders' equity reflects how well the firm has used the resource of the owner's. The earning of satisfactory return is the most desirable objective of business as common or ordinary shareholders are entitled to the residual profits. It is calculated by dividing profit after tax by shareholders' equity.

$$Return\ on\ Shareholders'Equity = \frac{NPAT}{Shareholders'Equity}$$

d. Return on Total Assets Ratio (ROA)

Return on total assets explains the contribution of assets to generating net profit. This ratio indicates efficiency towards of assets mobilization. In other words return on total assets ratio is an overall profitability rate, which measures earning power and overall operation efficiency of a firm. This ratio helps the management in identifying the factors that have a bearing on overall performance of the firm.

$$Return\ on\ Total\ Assets = \frac{NPAT}{Total\ Assets}$$

e. Return on Total Deposit Ratio

Return on total deposit ratio measures how efficiently the deposits have been mobilized. It reveals the relationship between net profit after tax and total deposits. An explanation of the ability of management in efficient utilization of deposits. The ratio is calculated as;

$$Return\ on\ Total\ Deposits\ Ratio = \frac{NPAT}{Total\ Deposits}$$

f. Interest Earned to Total Assets Raito

Interest earned to total assets ratio shows how much interest has been generated by mobilizing the assets in the bank. Higher ratio indicates higher efficiency in the mobilization of resources and ability of interest earning and vice-versa. The following formula is used to calculate this ratio.

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

g. Interest Paid to Interest Income Ratio

Interest paid to interest income ratio reveals the proportionate relationship between interest paid on different liabilities and interest income form different source. Higher ratio indicates that the bank has paid higher amount of interest on liabilities in relation to interest income and vice versa.

$$\text{Interest Paid to Interest Income Ratio} = \frac{\text{Total Interest Expenses}}{\text{Total Interest Income}}$$

3.5.2 Statistical Tools

A) Arithmetic Mean

Arithmetic Mean of a given set of observations is the sum of he observation divided by the number of observations. In such as case all the items are equally important. Simple Arithmetic Mean is used in this study as per necessary for analysis

We have,

$$\text{Mean } (\overline{X}) = \frac{\phi x}{n}$$

Where   x = sum of all values of the observations

n = Number of observation

x = Value of variables

B). Standard Deviation

"The standard deviation usually denoted by the letters ($\exists$). Karl Pearson suggested it as a widely used measure of dispersion and defined as the given observations from their arithmetic mean of a set of value. It is also known as root mean square deviation. Standard deviation, in this study has been used to measure the degree of fluctuation of interest rate and that of other variables as per the necessity of the analysis." *(Gupta; 2002: 238)*

We have,

Standard Deviation = $\sqrt{\dfrac{\phi\,(x\,Z\,\overline{x})}{n}}$

C) Coefficient of Variation (C.V.)

The relative measure of dispersion based on standard deviation is called coefficient of standard deviation and 100 time coefficient of standard deviation is called coefficient of variation. It is denote by C.V. Thus,

$$\text{C.V.} = \dfrac{\dagger}{\overline{x}}\,x100\%$$

Where $\exists$ = Standard Deviation

$\overline{X}$ = Mean Value of Variables

The distribution having less C.V. is said to be less variable or more consistent. A distribution having greater C.V. is said to be more variable or less consistent.

D) Coefficient of Correlation

"The coefficient of correlation is a number, which indicates to what extent two things (variables) are related to what extent variations in one go with the variations in the other." *(Levin and David; 1994:613)*

The value of coefficient of correlation as obtained shall always lie between ± 1, a value of -1 indicating a perfect negative relationship between the variables, of $+1$ a perfect positive relationship, and of no relationship when correlation coefficient is zero. The zero correlation coefficient means the variables are uncorrected.

It is defined by Karl Pearson as:

$$r = \frac{N\ XY - X\ Y}{\sqrt{N\ X^2 - (X)^2}\ \sqrt{N\ Y^2 - (Y)^2}}$$

E) Regression Analysis

Regression is a statistical method for investing relationships between the variables by the establishment of an approximate functional relationship between them. It is considered as a useful tool for determining the strength of relationship between two (Simple Regression) or more (Multiple regression) variables. It helps to predict or estimate the value of one variable when the value of other variable/variables is known. The regression line of dependent variable (Y) on independent variable (X) is given by;

Y = a + bX………………………..(i)

Where, a = constant

b = regression coefficient

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

4.1 Liquidity Position

Commercial banks need liquidity to meet loan demand and deposit withdrawals. Liquidity is also needed for the purpose of meeting cash reserve ratio (CRR) requirements prescribed by NRB. The commercial banks should ensure that they do not suffer form the liquidity problem and should ensure that it does not have excess liquidity as well. The failure of the bank to meet this obligation will result bad credit image and loss of creditors confidence.

4.1.1 Liquid Assets Trend

Liquid assets mean the asset that can be easily converted in cash. The bank has to keep adequate liquidity to meet the short term liability. The liquid assets maintained by the sampled banks are presented in the Table 4.1.

Table 4.1

Liquid Assets

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	17095.58	8217.36	11662.19	3354.91	5399.40
2004/05	13567.06	6116.67	14179.82	3773.49	5416.20
2005/06	16739.61	9088.34	13633.39	5827.88	8009.39
2006/07	17968.46	11420.72	15303.11	7375.73	9311.29
2007/08	19499.92	15169.67	15317.16	8073.53	10629.72
Mean	**16974.13**	**10002.55**	**14019.13**	**5681.11**	**7753.20**
S.D.	**2182.10**	**3458.07**	**1505.26**	**2101.62**	**2332.89**
C.V.%	**12.86**	**34.57**	**10.74**	**36.99**	**30.09**

(Source: Appendix I)

The table 4.1 showed the amount of liquid assets maintained by the sampled banks to meet the current liabilities. The table depicted that the liquid assets of SCBNL decreased

for the first two years, i.e. from Rs. 17095.58 millions in the fiscal year 2003/04 to Rs. 13567.06 millions in the fiscal year 2004/05, and then followed increasing trend and finally reached to Rs. 19499.92 millions in the fiscal year 2007/08. In average, SCBNL kept Rs. 16974.13 millions as liquid assets within the five years period and the coefficient of variation in the amount was 12.86%. Similarly, the liquid assets of NABIL was highest, Rs. 15169.67 millions in the fiscal year 2007/08 and lowest, Rs. 6116.87 millions in the fiscal year 2004/05. And the average amount kept by NABIL as liquid assets was Rs. 10002.55 millions and the coefficient of variation in the amount was 34.57%, indicating high inconsistency.

Likewise, except in the fiscal year 2005/06, the liquid assets maintained by HBL was in increasing trend. The liquid assets of HBL ranged from Rs. 11662.19 millions in the fiscal year 2003/04 to Rs. 15317.16 millions in the fiscal year 2007/08. In average, HBL maintained Rs. 14019.13 millions as liquid assets. Further, the liquid asset of EBL was in increasing trend. The liquid assets of EBL increased from Rs. 3354.91 millions in the fiscal year 2003/04 to Rs. 8073.53 millions in the fiscal year 2007/08. The average liquid asset kept by EBL within the five consecutive fiscal years was Rs. 5681.11 millions and the coefficient of variation in the amount was 36.99%, which indicated inconsistency in the liquid assets.

Alike in EBL, the liquid asset in NIBL was also in increasing trend. The liquid assets of NIBL in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 was Rs. 5399.40 millions, Rs. 5416.20 millions, Rs. 8009.39 millions, Rs. 9311.29 millions and Rs. 10629.72 millions respectively. In average, NIBL maintained Rs. 7753.20 millions as liquid asset, and the coefficient of variation in the provision was 30.09%, indicating inconsistency in liquid assets.

Comparing five sampled banks, it can be concluded that the liquid assets maintenance of SCBNL (Rs. 16974.13 millions) was comparatively highest and that of EBL (Rs. 5681.11 millions) was comparatively lowest.

Figure 4.1

Liquid Assets
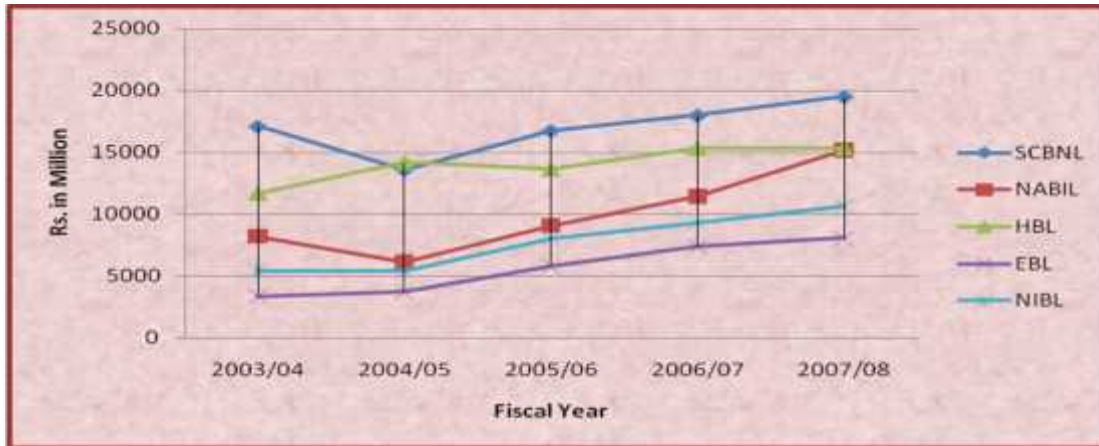
4.1.2 Current Ratio

The current ratio is a measure of the firm's short-term solvency. Current ratio of 2:1 or more is generally considered satisfactory, which is not a strict rule. This conventional rule is based on the assumption that even if the current assets are decreased by half, the firm can easily meet its current obligations.

Table 4.2

Current Ratio

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	1.07	1.09	1.07	1.06	1.07
2004/05	1.08	1.09	1.07	1.09	1.08
2005/06	1.07	1.09	1.06	1.08	1.08
2006/07	1.09	1.11	1.07	1.07	1.08
2007/08	1.08	1.10	1.08	1.07	1.08
Mean	**1.08**	**1.09**	**1.07**	**1.07**	**1.08**
S.D.	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
C.V.%	**0.95**	**1.00**	**0.68**	**1.12**	**0.55**

(Source: Appendix I)

The table 4.2 measured the current ratio of the sampled banks. The table showed that the current ratio of SCBNL fluctuated during the five year periods. The ratio was highest (1.09 times) in the fiscal year 2006/07 and lowest (1.07 times) in the fiscal year 2003/04

and 2005/06. In average, SCBNL maintained 1.08 times as the current ratio to meet the obligations. Similarly, the current ratio in NABIL was stable for the first three year, i.e. 1.09 times, and then increased to 1.11 times in the fiscal year 2006/07 and decreased to 1.10 times in the fiscal year 2007/08. In average, the current ratio of NABIL was 1.09 times and the coefficient of variation in the ratio was 1.00%.

Likewise, the current ratio of HBL was 1.07 times in the three fiscal years, i.e. in the fiscal year 2003/04, 2004/05 and 2006/07. And in the fiscal year 2005/06 and 2007/08, the ratio was 1.06 times and 1.08 times respectively. In average, HBL maintained 1.07 times and the current ratio and the coefficient of variation in the ratio was 0.68%, indicating high uniformity. Also, the current ratio of EBL was 1.06 times, 1.09 times, 1.08 times, 1.07 times and 1.07 times in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. The average current ratio maintained by EBL in such period was 1.07 times and the coefficient of variation in the ratio was 1.12%.

Finally, the current ratio in NIBL was 1.07 times in the fiscal year 2003/04 and 1.08 times in the rest of the fiscal years. This indicated that NIBL followed stable liquidity policy by maintaining stable current ratio, which was also verified by the low coefficient of variation, which was 0.55%. As a result, the average current ratio of NIBL was 1.08 times.

Comparing five sampled banks, it can be concluded that the liquidity position of NABIL was better than that of others', since the average current ratio of NABIL (1.09 times) was greatest in comparison with that of SCBNL (1.08 times), HBL (1.07 times), EBL (1.07 times) and NIBL (1.08 times). However, the ratio was most stable in NIBL, since the coefficient of variation in the ratio of NIBL (0.55%) was lowest.

Figure 4.2

Current Ratio
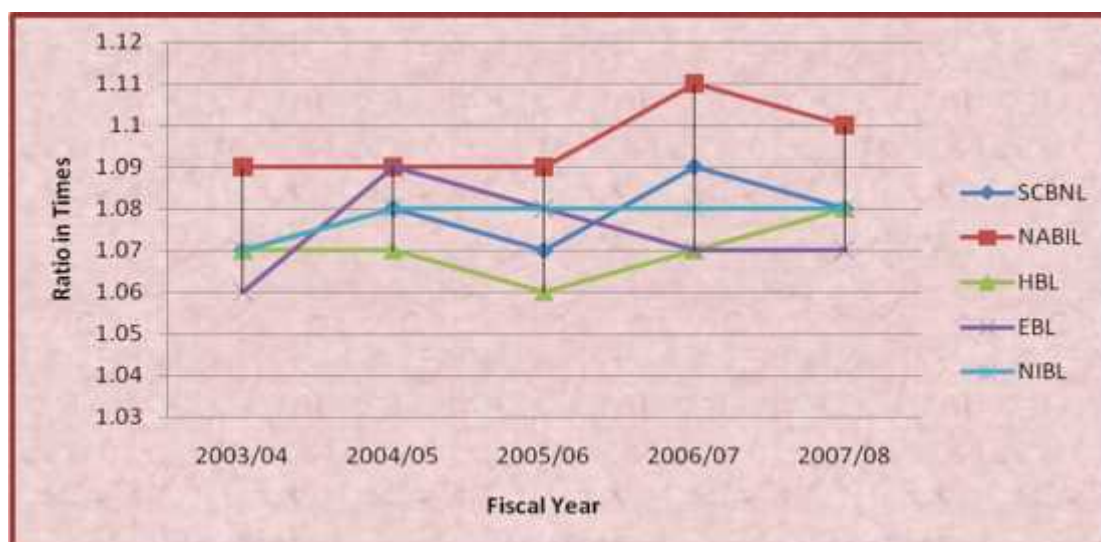
4.1.3 Cash and Bank Balance to Total Deposits Ratio

Adequate liquidity is also must in the banking sector in order to protect its solvency and to honor its short-term obligations and liabilities. Hence bank should have enough cash and bank balance in comparison to total deposit.

Table 4.3

Cash and Bank Balance to Total Deposits Ratio

| FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	9.56	6.87	9.09	7.83	10.65
2004/05	5.74	3.83	8.12	10.40	9.40
2005/06	5.53	3.26	6.48	11.25	12.34
2006/07	8.20	6.00	5.85	13.15	9.97
2007/08	6.89	8.37	4.55	11.13	10.90
Mean	**7.19**	**5.67**	**6.82**	**10.75**	**10.65**
S.D.	**1.70**	**2.12**	**1.81**	**1.92**	**1.11**
C.V.%	**23.68**	**37.47**	**26.51**	**17.87**	**10.44**

(Source: Appendix I)

The table 4.3 measured the cash and bank balance kept by the banks in respect to the total deposit collected. The table presented that the cash and bank balance to total deposit of SCBNL was in fluctuating trend. The ratio was 9.56%, 5.74%, 5.53%, 8.20% and 6.89% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, SCBNL kept 7.19% of the total deposit as cash and bank balance to meet the cash requirement. However, the coefficient of variation, 23.68%, indicated that the ratio was inconsistent during the period, and thus there was no stable policy in maintaining cash and bank balance from total deposit. Also, the ratio in NABIL fluctuated during the entire period, and thus ranged from 3.26% in the fiscal year 2005/06 to 8.37% in the fiscal year 2007/08. In average, NABIL kept 5.67% of the total deposit as cash and bank balance to meet the immediate cash requirement. The coefficient of variation, 37.47%, in the ratio was highest in NABIL.

Likewise, the cash and bank balance to total deposit ratio followed decreasing trend in HBL. The ratio was 9.09% in the fiscal year 2003/04, which decreased to 8.12% in the fiscal year 2004/05, 6.48% in the fiscal year 2005/06, 5.85% in the fiscal year 2006/07 and 4.55% in the fiscal year 2007/08. In average, HBL kept 6.82% of the total deposit as cash and bank balance and the coefficient of variation in the ratio was 26.51%, indicating inconsistency. However, the ratio in EBL was found to be in increasing trend in the first four years, i.e. from 7.83% in the fiscal year 2003/04 to 13.15% in the fiscal year 2006/07 and then decreased to 11.13% in the fiscal year 2007/08. In average, EBL kept 10.75% of the total deposit collection as cash and bank balance and the coefficient of variation in the ratio was 17.87%.

Consequently, the cash and bank balance to total deposit ratio of NIBL was found to be in fluctuating trend. The ratio was 10.65% in the fiscal year 2003/04, which decreased to 9.40% in the fiscal year 2004/05, again increased to 12.34% in the fiscal year 2005/06, decreased to 9.97% in the fiscal year 2006/07 and finally increased to 10.90% in the fiscal year 2007/08. In average, the cash and bank balance represented 10.65% of the total deposit and the coefficient of variation in the ratio was 10.44%.

Comparing five banks on the basis of cash and bank balance to total deposit ratio, it can be concluded that EBL had the practice of highest percentage of total deposit collected in the form of cash and bank balance than other banks to meet the immediate cash requirement.

Figure 4.3

Cash and Bank Balance to Total Deposits Ratio
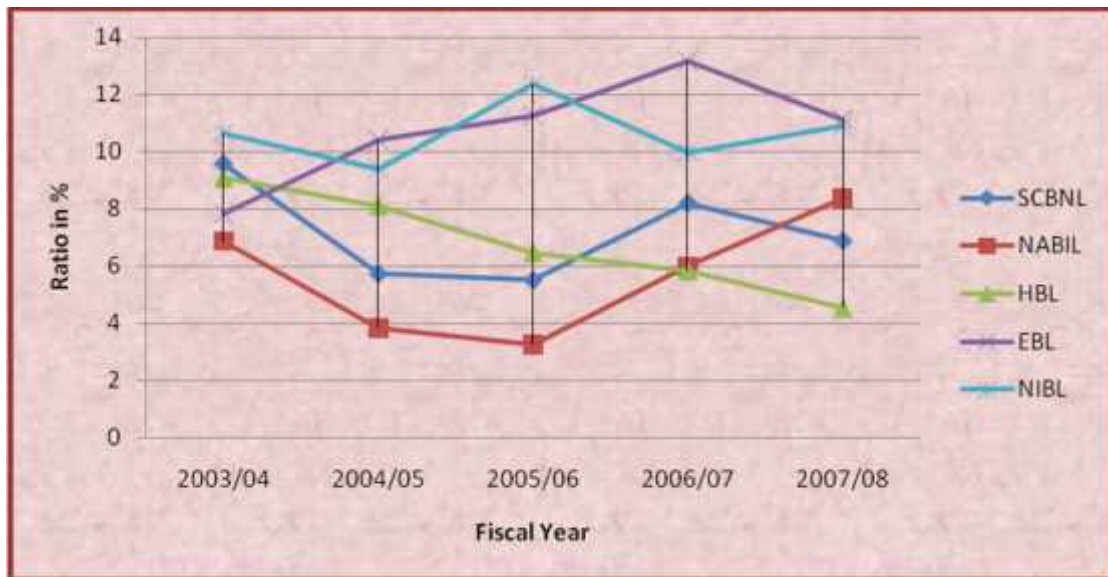
4.1.4 Cash Reserve Ratio

Each bank has to operate its activities as per the direction set out by Nepal Rastra Bank. According to the directives of NRB, the cash balance at NRB should be 6% of the total local deposit in the fiscal year 2003/04, however the same ratio should be 5% from the fiscal year 2004/05 and 5.5% from October 2008. Thus, cash reserve ratio measures, whether the bank has effectively mobilized the local deposit to implement the NRB directives.

Table 4.4

Cash Reserve Ratio

FY	SCBNL	NABIL	HBL	EBL	NIBL	NRB Requirement
2003/04	9.46	6.87	8.28	1.60	9.19	6
2004/05	8.77	3.83	7.86	1.90	9.78	5
2005/06	6.86	3.26	5.92	1.90	13.61	5
2006/07	5.46	6.00	5.92	2.90	10.47	5
2007/08	5.84	8.37	5.13	3.40	10.91	5
Mean	**7.28**	**5.67**	**6.62**	**2.34**	**10.79**	
S.D.	**1.77**	**2.12**	**1.37**	**0.77**	**1.71**	
C.V.%	**24.32**	**37.47**	**20.67**	**32.91**	**15.81**	

(Source: Appendix II)

The table 4.4 depicted the cash reserve ratio of the sampled banks. The table showed that the CRR maintained by SCBNL was in decreasing trend for the first four years, i.e. from 9.46% in the fiscal year 2003/04 to 5.46% in the fiscal year 2006/07, and slightly increased to 5.84% in the fiscal year 2007/08 compared to that in the previous year. In average, SCBNL maintained 7.28% as the cash reserve ratio. The cash reserve ratio indicated that the liquidity position of SCBNL was quite good, since the ratio was greater than the ratio directed by NRB in each fiscal year. Similarly, the CRR in NABIL ranged from 3.26% in the fiscal year 2005/06 to 8.37% in the fiscal year 2007/08. In average, NIBL maintained 5.67% as the cash reserve ratio. The table depicted that NIBL remained failure to meet the standard set by NRB for CRR in two fiscal years, i.e. in the fiscal year 2004/05 and 2005/06.

Likewise, the cash reserve ratio in HBL followed decreasing trend in the five fiscal years period. The ratio ranged was 8.28% in the fiscal year 2003/04 and was 5.13% in the fiscal year 2007/08. In average, HBL maintained 6.62% as the cash reserve ratio. Since, the CRR of HBL was greater than the standard set by NRB, the liquidity position of HBL can be considered satisfactory. However, EBL has the poor liquidity position, since the CRR

maintained by EBL was lower than the standard set out by NRB in each fiscal year. The CRR maintained by EBL was 1.60%, 1.90%, 1.90%, 2.90% and 3.40% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08. In average, the ratio of EBL was 2.34% only. This seemed that EBL needs to increase the CRR to minimize the risk of turning bankrupt.

Further, the CRR ratio of NIBL was in increasing trend for the first three years, i.e. from 9.19% in the fiscal year 2003/04 to 13.61% in the fiscal year 2004/05, and then decreased to 10.47% in the fiscal year 2006/07 and increased to 10.91% in the fiscal year 2007/08. However, it can not be ignored that the liquidity position of NIBL was satisfactory, since the CRR maintained by NIBL in each fiscal year was greater than the benchmark. In average, the CRR of NIBL was 10.79%.

Comparing five banks, it can be concluded that the liquidity position of NIBL was most satisfactory than that of others', since the average CRR maintained by NIBL was highest, and the liquidity position of EBL was most terrible. Also, the liquidity policy adopted by NIBL was most stable than that of others'.

Figure 4.4

Cash Reserve Ratio
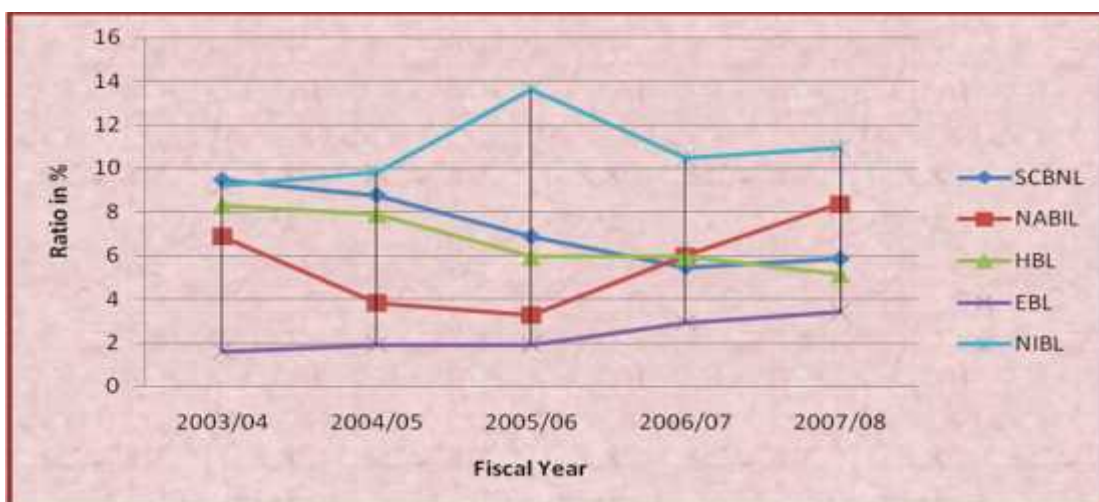
4.1.5 Fixed Deposit to Total Deposit Ratio

The higher the proportion of fixed deposits, the lower the proportion of current, saving or short-term deposit in the total deposit. This situation shows higher short-term liquidity position of the bank.

Table 4.5

Fixed Deposit to Total Deposit Ratio

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	6.75	16.36	21.40	35.94	19.91
2004/05	7.31	14.25	24.61	33.71	22.53
2005/06	9.26	17.83	23.97	30.74	28.60
2006/07	12.97	23.28	27.29	30.94	30.69
2007/08	11.10	26.52	20.17	26.89	23.06
Mean	**9.48**	**19.65**	**23.49**	**31.64**	**24.96**
S.D.	**2.60**	**5.09**	**2.80**	**3.42**	**4.50**
C.V.%	**27.40**	**25.91**	**11.91**	**10.79**	**18.04**

(Source: Appendix I)

The above table showed that the ratio of fixed deposit to total deposit of SCBNL was in increasing trend except in the fiscal year 2007/08. The increasing trend indicated lower requirement of liquid assets in SCBNL. The ratio was highest, 6.75%, in the fiscal year 2003/04 and lowest, 12.97%, in the fiscal year 2006/07. In average, 9.48% of the total deposit was represented by fixed deposit and the coefficient of variation in the ratio was 27.40%, indicating inconsistency in the ratio. Similarly, except in the fiscal year 2004/05, the ratio in NABIL was in increasing trend. The fixed deposit to total deposit ranged from 14.25% in the fiscal year 2004/05 to 26.52% in the fiscal year 2007/08. In average, 19.65% of the total deposit was represented by fixed deposit amount and the coefficient of variation in the ratio was 25.91%.

However, the fixed deposit to total deposit of HBL was in fluctuating trend. The ratio was 21.40%, 24.61%, 23.97%, 27.29% and 20.17% in the fiscal year

2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, 23.49% of the deposit was collected through fixed deposit amount and the coefficient of variation in the ratio was 11.91%. Likewise, the fixed deposit to total deposit ratio of EBL was found to be in decreasing trend, except in the fiscal year 2006/07. The ratio was highest, 35.94%, in the fiscal year 2003/04 and lowest, 26.89%, in the fiscal year 2007/08. In average, 31.64% of the deposit collection of EBL came from fixed deposit amount.

In contrast, the ratio in NIBL followed increasing trend for the first four years, and then slightly decreased in the last year. The ratio increased from 19.91% in the fiscal year 2003/04 to 30.69% in the fiscal year 2006/07 and decreased to 23.06% in the fiscal year 2007/08. In average, NIBL was able to collect 24.96% of the total deposit amount from fixed deposit, and the coefficient of variation in the ratio was 18.04%.

On the basis of fixed deposit to total deposit ratio, it can be concluded that the ratio was highest in EBL and lowest in SCBNL. And, hence EBL require comparatively less liquidity ratio than other banks to pay the fixed deposit holders.

Figure 4.5

Fixed Deposit to Total Deposit Ratio
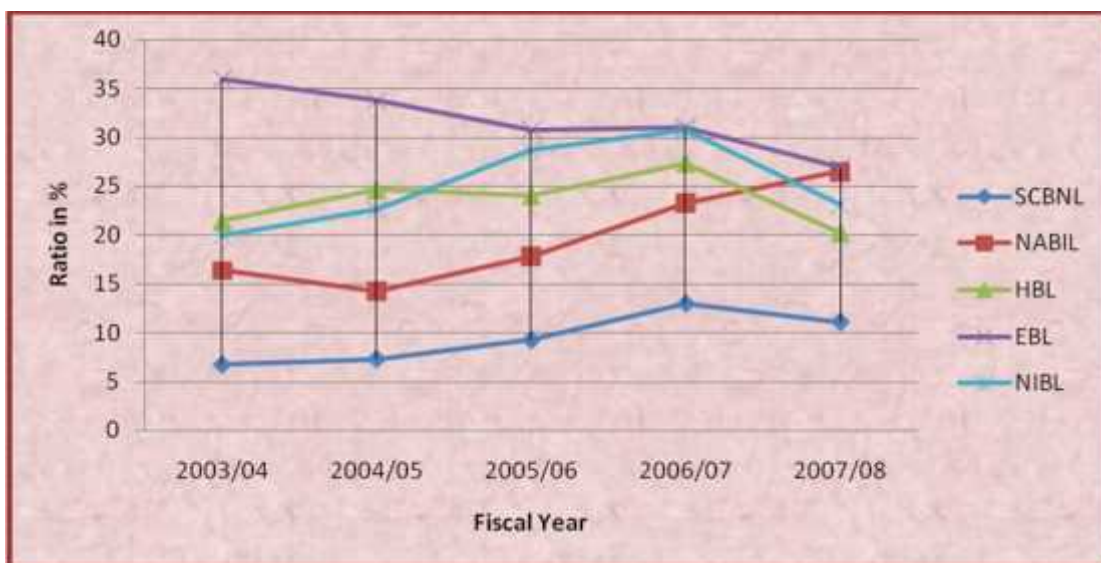
4.1.6 Current Deposit to Total Deposit Ratio

Current deposit includes only the amount of current deposit account. It is no interest bearing account. Generally, short-term deposit is not beneficial to the bank, as it cannot be invested on long-term basis. Therefore lower ratio shows higher short-term liquidity position of the bank.

Table 4.6

Current Deposit to Total Deposit Ratio

| FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	27.49	19.05	18.83	8.93	13.02
2004/05	22.50	19.19	20.33	10.15	11.11
2005/06	20.30	15.04	18.98	8.30	9.01
2006/07	19.45	14.55	18.60	9.20	8.88
2007/08	20.76	16.56	15.02	10.40	9.11
Mean	**22.10**	**16.88**	**18.35**	**9.40**	**10.23**
S.D.	**3.21**	**2.18**	**1.98**	**0.87**	**1.81**
C.V.%	**14.53**	**12.90**	**10.79**	**9.25**	**17.69**

(Source: Appendix I)

The table showed the ratio of current deposit to total deposit. The table depicted that the ratio decreased for the first four years in SCBNL, and slightly increased in the last year. The ratio ranged from 27.49% in the fiscal year 2003/04 to 19.45% in the fiscal year 2006/07. The decreased ratio indicated that SCBNL became more dependent on other deposit than current deposit, which demands higher liquidity. In average, 22.10% of the total deposit was collected from current accounts and the coefficient of variation in the ratio was 14.53%. However, the ratio was in fluctuating trend in NABIL. The ratio was highest, 19.19%, in the fiscal year 2004/05 and lowest, 14.55%, in the fiscal yer 2006/07. Within the five year periods, NABIL collected 16.88% of the total deposit through current account in average, and the coefficient of variation in the ratio was 12.90%.

Similarly, the current deposit to total deposit of HBL was maximum, 20.33%, in the fiscal year 2004/05 and minimum, 15.02%, in the fiscal year 2007/08. In average,

18.35% of the total deposit was collected through current accounts. Likewise, the ratio in EBL was highest, 10.40%, in the fiscal year 2007/08 and lowest, 8.30%, in the fiscal year 2005/06. In average, EBL collected 9.40% of the total deposit through current deposit and the coefficient of variation in the ratio was 9.25%, indicating quite uniformity. Eventually, the ratio in NIBL was in decreasing trend, except in the fiscal year 2007/08. The ratio was 13.02%, 11.11%, 9.01%, 8.88% and 9.11% in the fiscal year 2003/04, 2004/05, 23005/06, 2006/07 and 2007/08 respectively. In average, NIBL collected 10.23% of the total deposit through current account.

Comparing five banks on the ground of current deposit to total deposit, it can be concluded that SCBNL requires more liquidity than other banks to meet the demand of current deposit holders, since the ratio of current deposit to total deposit of SCBNL was highest in comparison to other banks.

Figure 4.6

Current Deposit to Total Deposit Ratio
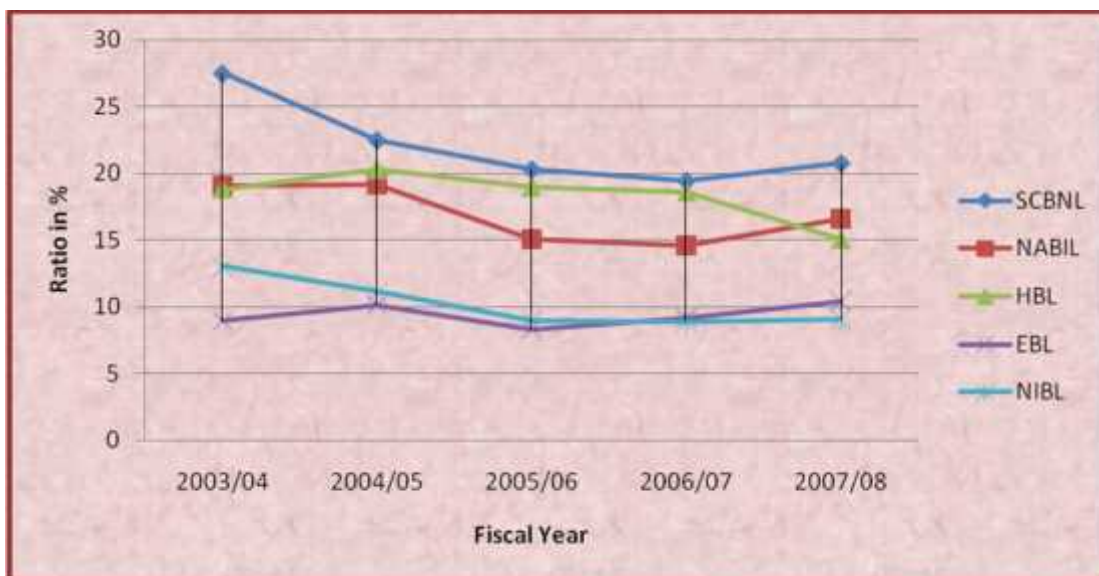
4.2 Profitability Position

Profit maximization and wealth maximization are primary objectives of any organization. Therefore all the organization tries to maximize its profit. It is very important for their survival in this competitive market for their future growth. Profit indicates the present condition of the organization where they stand in the market. In this section various

profitability ratios, which reflects the operating efficiency of the bank have been analyzed.

4.2.1 Net Profit Trend

The main objective of the bank is to achieve profit. Further, profit is the lifeblood of each organization, without which the organization cannot sustain. Thus, the bank should also gain profit for survival. The net profit gained by the sampled banks is presented in the Table 4.7.

Table 4.7

Net Profit

| FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	537.80	455.31	263.05	143.57	152.67
2004/05	536.24	520.11	308.28	168.21	232.15
2005/06	658.76	635.26	457.46	237.29	350.54
2006/07	691.67	673.96	491.82	296.41	501.40
2007/08	818.92	746.47	635.87	451.22	696.73
Mean	**648.68**	**606.22**	**431.30**	**259.34**	**386.70**
S.D.	**118.18**	**117.57**	**149.70**	**122.87**	**217.51**
C.V.%	**18.22**	**19.39**	**34.71**	**47.38**	**56.25**

(Source: Appendix I)

The above table depicted the net profit trend of the sampled banks. According to the above table, the net profit achieved by SCBNL was in increasing trend, except in the fiscal year 2004/05. SCBNL was able to increase the net profit from Rs. 537.80 millions in the fiscal year 2003/04 to Rs. 818.92 millions in the fiscal year 2007/08. Within the five year periods, SCBNL earned Rs. 648.68 millions per year in average, and the coefficient of the variation in the net profit achievement was 18.22%. Alike in SCBNL, the net profit of NABIL was in increasing trend. The net profit of NABIL ranged from Rs. 455.31 millions in the fiscal year 2003/04 to Rs. 746.47 millions in the fiscal year 2007/08. In average, NABIL earned Rs. 606.22 millions as net profit and the coefficient of variation in such earning was 19.39%.

Similarly, the net profit achievement of HBL was also in increasing trend. The net profit of HBL was highest, Rs. 635.87 millions, in the fiscal year 2007/08 and lowest, Rs. 263.05 millions, in the fiscal year 2003/04. In average, HBL earned Rs. 431.30 millions as net profit, and the coefficient of variation in such earning was 34.71%, which indicated high pace of growth in the net profit. Further, the net profit of EBL ranged from Rs. 143.57 millions in the fiscal year 2003/04 to Rs. 451.22 millions in the fiscal year 2007/08. And in average, the net profit of EBL was Rs. 259.34 millions and the coefficient of variation was 47.38%, indicating inconsistency.

Eventually, the net profit of NIBL was also in increasing trend, and thus was maximum, Rs. 696.73 millions, in the fiscal year 2007/08 and minimum, Rs. 152.67 millions, in the fiscal year 2003/04. The average earning of NIBL within the five year periods was Rs. 386.70 millions and the coefficient of variation on such earning was 56.25%, indicating high pace of growth in net profit.

Comparing five banks, certainly SCBNL made the highest net profit than other banks and the net profit of EBL was lowest. However, within the five year periods, the progression of NIBL in making profit cannot be ignored, since the net profit earning of NIBL was more than 4.5 times.

Figure 4.7

Net Profit
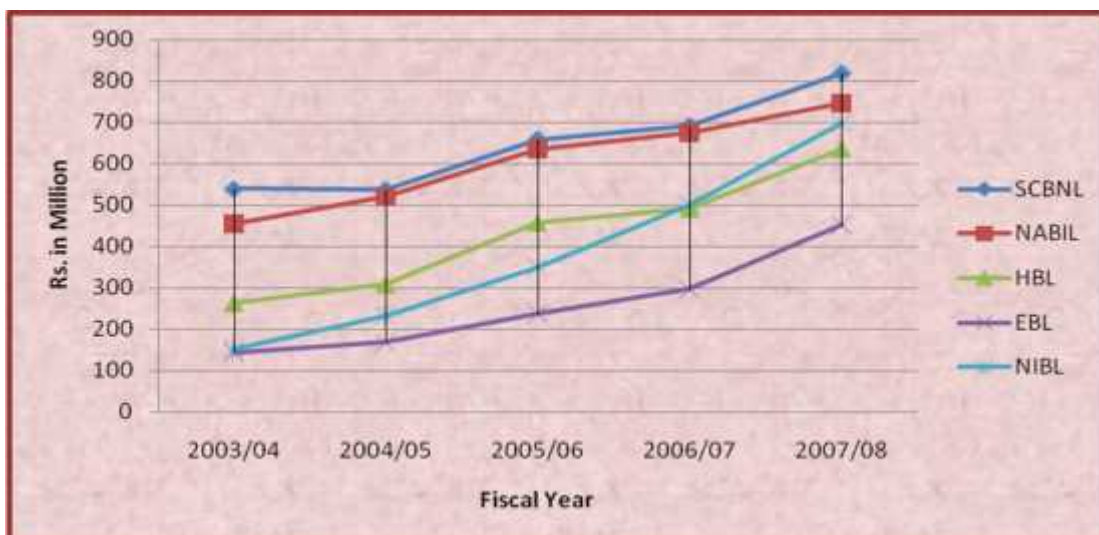
4.2.2 Net Profit Margin

Net profit margin indicates margin of compensation left to the owners for providing their capital, after all expenses have been met. It helps in determining the efficiency with which the affairs of the business are being managed. A net profit margin would enable the firm to withstand adverse economic conditions and low margin will have opposite implications.

Table 4.8

Net Profit Margin

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	33.95	31.92	30.75	18.30	16.71
2004/05	34.01	34.33	32.98	19.90	20.26
2005/06	37.06	35.32	35.16	22.20	23.99
2006/07	34.55	32.16	34.90	21.60	25.07
2007/08	34.94	29.68	40.73	24.20	25.33
Mean	**34.90**	**32.68**	**34.90**	**21.24**	**22.27**
S.D.	**1.27**	**2.21**	**3.71**	**2.25**	**3.71**
C.V.%	**3.65**	**6.76**	**10.62**	**10.59**	**16.67**

(Source: Appendix II)

The above table delineated the net profit margin of the sampled banks. The table showed that the net profit margin of SCBNL was in fluctuating trend and thus ranged from 33.95% in the fiscal year 2003/04 to 37.06% in the fiscal year 2005/06. In average, the net profit margin of SCBNL was 34.90% and the coefficient of variation in the ratio was 3.65%. Similarly, the net profit margin of NABIL was in increasing trend for the first three years, i.e. from 31.92% in the fiscal year 2003/04 to 35.32% in the fiscal year 2005/06, and was in decreasing trend in the last two years, i.e. from 32.16% in the fiscal year 2006/07 to 29.68% in the fiscal year 2007/08. In average, the net profit margin of NABIL was 32.68%, and the coefficient of variation in the ratio was 6.76%.

Likewise, the net profit margin of HBL was also in increasing trend for the first three years, i.e. 30.75% in the fiscal year 2003/04 to 35.16% in the fiscal year 2005/06, and

then decreased to 34.90% in the fiscal year 2006/07 and finally increased to 40.73% in the fiscal year 2007/08. In average, HBL was able to kept 34.90% as the net profit margin. Similarly in EBL also, the net profit margin followed increasing trend for the first three years, i.e. from 18.30% in the fiscal year 2003/04 to 22.20% in the fiscal year 2005/06, and then decreased to 21.60% in the fiscal year 2006/07 and finally increased to 24.20% in the fiscal year 2007/08. In average, the net profit margin of EBL was 21.24% and the coefficient of variation in the ratio was 10.59%.

However, the net profit margin of NIBL within the five consecutive years was in increasing trend. The net profit margin was 16.71%, 20.26%, 23.99%, 25.07% and 25.33% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, the net profit margin of NIBL was 22.27% and the coefficient of variation in the ratio was 16.67%.

Comparing five banks on the basis of net profit margin, it can be concluded that the SCBNL and HBL was most successful than other banks in controlling the operating and other non operating cost, as a result their net profit margin was highest, (34.90%) in comparison with that of NABIL (32.68%), EBL (21.24%0 and NIBL (22.27%).

Figure 4.8

Net Profit Margin
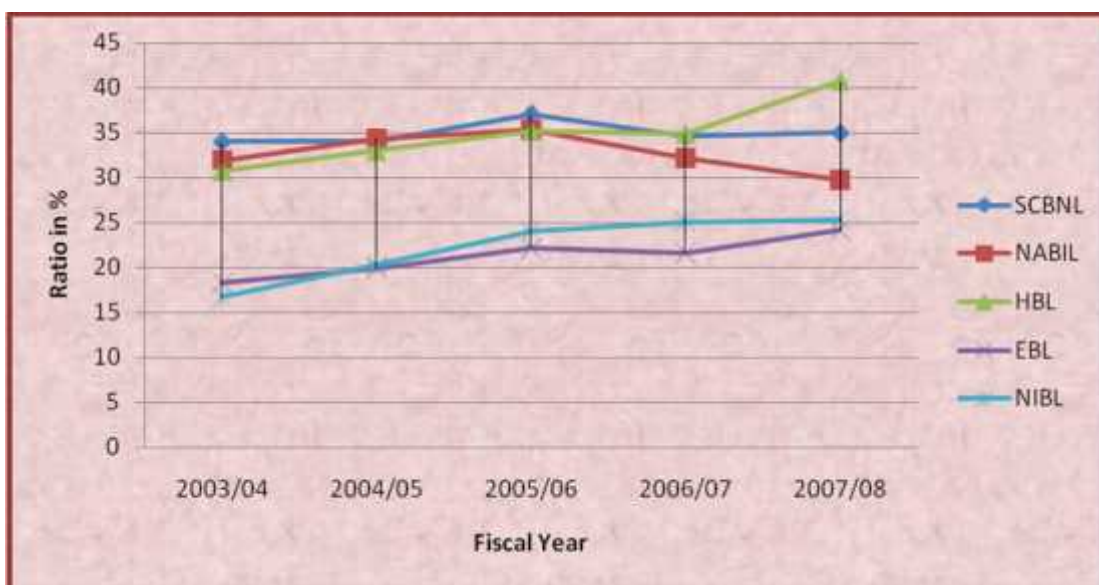
4.2.3 Interest Income to Loan and Advances

The bank grants loan and advances for the sole reason to gain interest income. Thus, to examine how far the bank has been able to manage the loan and advances in earning interest income, the ratio of interest income to loan and advances has been determined.

Table 4.9

Interest Income to Loan and Advances

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	8.83	9.45	9.64	9.20	9.03
2004/05	7.43	8.70	10.75	8.00	7.36
2005/06	6.23	8.29	10.32	7.60	7.32
2006/07	6.49	8.14	9.98	6.90	7.33
2007/08	6.20	8.04	9.73	7.10	6.93
Mean	**7.04**	**8.52**	**10.08**	**7.76**	**7.59**
S.D.	**1.12**	**0.58**	**0.46**	**0.91**	**0.82**
C.V.%	**15.92**	**6.75**	**4.52**	**11.76**	**10.82**

(Source: Appendix I)

The above table measured the efficiency of the sampled banks in loan mobilization in terms of interest income earned. The table showed that the interest income to total loan and advances disbursed by SCBNL was highest, 8.83%, in the fiscal year 2003/04 and lowest, 6.20%, in the fiscal year 2007/08. In average, SCBNL gained 7.04% of the total loan and advances disbursed as the interest income and the coefficient of variation in the ratio was 15.92%. Similarly, the interest income to total loan and advances of NABIL was in decreasing trend in the five consecutive years. The ratio was 9.45% in the fiscal year 2003/04 and finally decreased to 8.04% in the fiscal year 2007/08. In average, 8.52% of the total credit disbursed was gained as interest income and the coefficient of variation in the ratio was 6.75%.

Likewise, except in the fiscal year 2004/05, the interest income to total loan and advances of HBL was in decreasing trend. The ratio was highest, 10.75% in the fiscal year 2004/05

and lowest, 9.64%, in the fiscal year 2003/04. In average, HBL earned 10.08% of the total credit granted as interest income. The coefficient of variation of 4.52% indicated uniformity in the ratio. Also, except in the fiscal year 2007/08, the interest income to loan and advances ratio of EBL was found to be decreasing trend. The ratio was highest, 9.20%, in the fiscal year 2003/04 and lowest, 6.90%, in the fiscal year 2006/07. In average, EBL earned 7.76% of the total loan and advances as interest income.

Further, the ratio in NIBL was also found to be decreasing trend. The ratio ranged from 6.93% in the fiscal year 2007/08 to 9.03% in the fiscal year 2003/04. In average, NIBL earned 7.59% of the total credit granted as interest income. And the coefficient of variation on the ratio was 10.82%.

Comparing the sampled banks, it can be concluded that HBL was most efficient in mobilizing the funds in credit and advances, since the interest yielded to total credit ratio was highest in comparison with that of the other banks'.

Figure 4.9

Interest Income to Loan and Advances
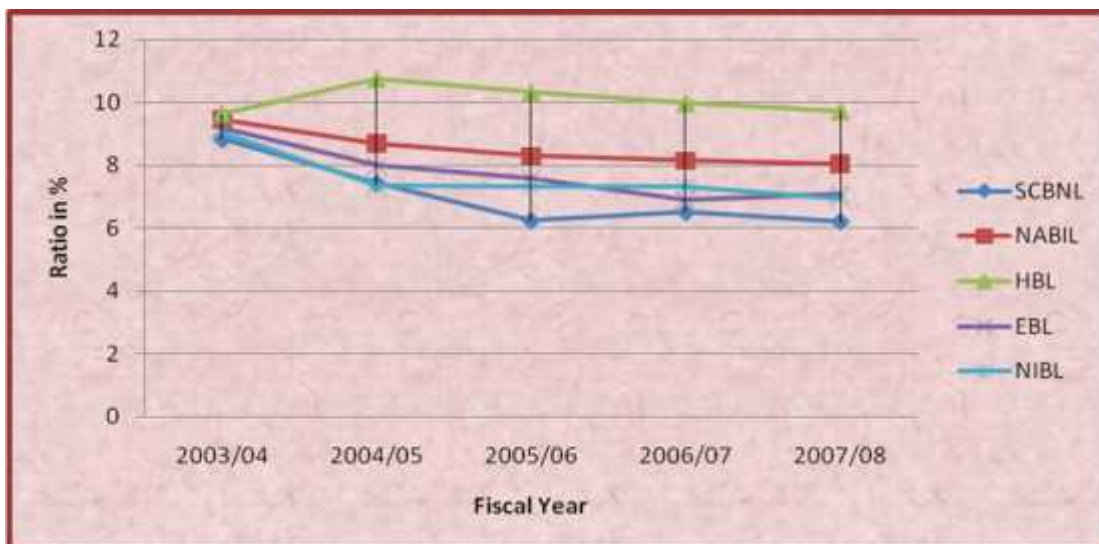
4.2.4 Return on Shareholders' Equity

Return on shareholders' reflects how well the firm has used the resources of the owners. It is calculated by dividing profit after tax by net worth. The ratio of net profit to owners' equity reflects the extent to which social responsibility

toward owners has been accomplished. This ratio is thus a great interest to present as well as prospective shareholders and a great concern to management.

Table 4.10

Return on Shareholders' Equity

| FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	35.96	30.73	19.87	21.10	20.94
2004/05	33.89	31.38	20.00	20.20	19.67
2005/06	37.55	33.88	25.90	24.65	24.77
2006/07	32.68	32.76	22.91	24.67	26.70
2007/08	32.85	30.63	25.30	23.49	25.93
Mean	**34.59**	**31.88**	**22.80**	**22.82**	**23.60**
S.D.	**2.11**	**1.41**	**2.84**	**2.06**	**3.12**
C.V.%	**6.10**	**4.42**	**12.48**	**9.03**	**13.21**

(Source: Appendix I)

The above table indicated the efficiency of the banks in generating profit through mobilizing the shareholders' property. The table showed that the return on shareholders' equity (ROSE) of SCBNL was highest, 37.55%, in the fiscal year 2005/06 and lowest, 32.68%, in the fiscal year 2006/07. In average, the ROSE in SCBNL was 34.59%, which indicated that SCBNL was able to generate Rs. 34.59 as net income from the mobilization of Rs. 100 of shareholders' equity. Also, the coefficient of variation, 6.10%, indicates consistency in the ratio. Similarly, the ROSE in NABIL increased from 30.73% in the fiscal year 2003/04 to 33.88% in the fiscal year 2005/06, and then followed decreasing trend and finally reached to 30.63% in the fiscal year 2007/08. In average, NABIL earned Rs. 31.88 as net from Rs. 100 investment of shareholders' equity.

Also, the ROSE of HBL followed increasing trend for the first three years, i.e. from 19.87% in the fiscal year 2003/04 to 25.90% in the fiscal year 2005/06, and then decreased to 22.91% in the fiscal year 2006/07 and increased to 25.30% in the fiscal year 2007/08. In average, HBL generated Rs. 22.80 net profit from Rs. 100 investment in shareholders' equity. Similarly, the ROSE was highest, 24.67%, in the fiscal year 2006/07 and lowest, 20.20%, in the fiscal year 2004/05. In average, HBL earned Rs. 22.82 net profit from Rs. 100 investment of shareholders' equity.

Likewise, the ROSE of NIBL was in fluctuating trend, and thus was 20.94%, 19.67%, 24.77%, 26.70% and 25.93% in the fiscal year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. In average, NIBL generated Rs. 23.60 net profit from Rs. 100 investment of shareholders' equity. And the coefficient of variation in ROSE was 13.21%.

Comparing the banks, it can be concluded that SCBNL was most effective in optimally mobilizing the shareholders' equity, since ROSE of SCBNL (34.59%) was highest in comparison with that of NABIL (31.88%), HBL (22.80%), EBL (22.82%) and NIBL (23.60%).

Figure 4.10

Return on Shareholders' Equity
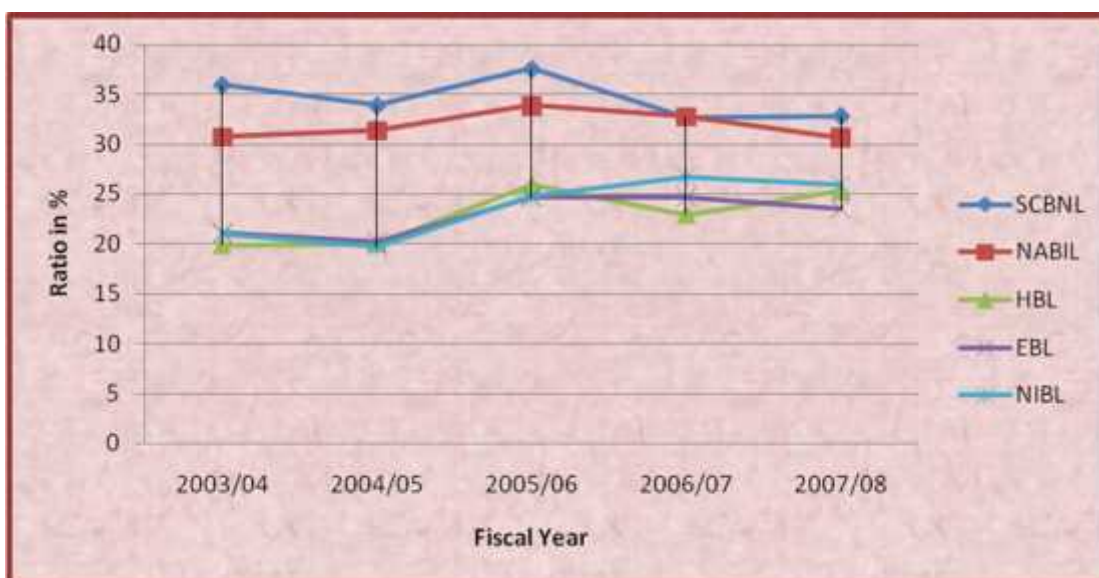
4.2.5 Return on Total Assets Ratio (ROA)

Return on Total Assets explains the contribution of assets to generating net profit. Return on total assets is calculated by dividing net profit after tax by total assets of the company. Higher return on total assets indicates the higher efficiency in the utilization of total assets and vice-versa.

Table 4.11

Return on Total Assets Ratio (ROA)

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	2.27	2.73	1.06	1.50	1.13
2004/05	2.46	3.06	1.11	1.40	1.42
2005/06	2.56	3.23	1.55	1.50	1.61
2006/07	2.42	2.72	1.47	1.40	1.79
2007/08	2.46	2.32	1.76	1.70	1.77
Mean	**2.43**	**2.81**	**1.39**	**1.50**	**1.54**
S.D.	**0.11**	**0.35**	**0.30**	**0.12**	**0.28**
C.V.%	**4.32**	**12.49**	**21.47**	**8.16**	**17.82**

(Source: Appendix I)

The above table showed that the ROA of SCBNL was in increasing trend for the first three fiscal years, i.e. from 2.27% in the fiscal year 2003/04 to 2.56% in the fiscal year 2005/06 and then decreased to 2.42% in the fiscal year 2006/07 and increased to 2.46% in the fiscal year 2007/08. The average ROA indicated that SCBNL was able to yield Rs. 2.43 net profit from Rs. 100 investment in total assets. The coefficient of variation of 4.32% also indicated greater uniformity in the ratio.

Likewise, the ROA of NABIL was in increasing trend in the first three years, i.e. from 2.73% in the fiscal year 2003/04 to 3.23% in the fiscal year 2007/08, and then decreased to 2.72% in the fiscal year 2006/07 and 2.32% in the fiscal year 2007/08. The average ROA of NABIL indicated that the bank was able to yield Rs. 2.81 net profit from Rs. 100 investment in total assets. And, the coefficient of variation in the ratio was 12.59%.

However, except in the fiscal year 2006/07, the ROA of HBL was found to be increasing trend. The ROA of HBL was highest, 1.76%, in the fiscal year 2007/08 and lowest, 1.06%, in the fiscal year 2003/04. In average, HBL was able to gain Rs. 1.39 as net profit from Rs. 100 investment in total assets. The coefficient of variation in the ratio was 21.47%. Also, the ROA of EBL was in fluctuating trend during the periods. The ROA of EBL ranged from 1.40% in the fiscal year 2004/05 and 2006/07 to 1.70% in the fiscal year 2007/08. In average, EBL earned Rs. 1.50 as net profit from Rs. 100 investment in total assets and the coefficient of variation in the ratio was 8.16%.

Eventually, the ROA of NIBL was also in increasing trend, except in the fiscal year 2007/08. The ROA of NIBL ranged from 1.13% in the fiscal year 2003/04 to 1.79% in the fiscal year 2006/07. In average, NIBL earned Rs. 1.54 as net profit from Rs. 100 investment in total assets and the coefficient of variation in the ratio was 17.82%.

Comparing the banks on the basis of ROA, it can be concluded that the NABIL was most successful to optimally mobilize the total assets in generating maximum net profit, since the ROA of NABIL was highest.

Figure 4.11

Return on Total Assets Ratio (ROA)
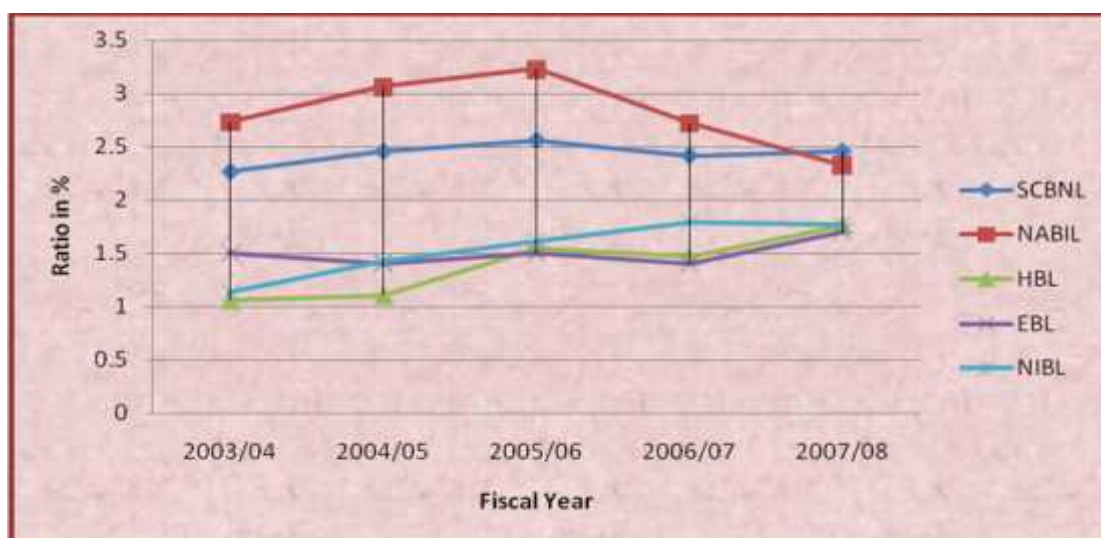
4.2.6 Return on Total Deposit Ratio

Return on total deposit ratio measures how efficiently the deposit has been mobilized. This ratio is a mirror of bank's overall financing performance; deposits are outsiders' capital fund that entails paying fixed interest, this affects NPAT ultimately. Shareholders, depositors and management are concerned with this ratio.

Table 4.12

Return on Total Deposit Ratio

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	2.54	3.22	1.20	1.78	1.32
2004/05	2.77	3.57	1.24	1.67	1.63
2005/06	2.86	3.28	1.73	1.72	1.85
2006/07	2.81	2.89	1.64	1.63	2.05
2007/08	2.75	2.34	2.00	1.88	2.02
Mean	**2.75**	**3.06**	**1.56**	**1.74**	**1.78**
S.D.	**0.12**	**0.47**	**0.34**	**0.10**	**0.30**
C.V.%	**4.40**	**15.35**	**21.71**	**5.74**	**17.03**

(Source: Appendix I)

The table revealed the efficiency of the banks to optimally mobilize the deposit collected. The table depicted that the return on total deposit of SCBNL increased in the first three years, i.e. from 2.54% in the fiscal year 20003/04 to 2.86% in the fiscal year 2005/06, and then decreased in the last two years, i.e. from 2.81% in the fiscal year 2006/07 to 2.75% in the fiscal year 2007/08. In average, SCBNL generated Rs. 2.75 net profit from Rs. 100 investment of total deposit and the coefficient of variation in the ratio was 4.40%, indicating uniformity in the ratio. In contrast, the ratio was in fluctuating trend in NABIL. The ratio was highest, 3.57%, in the fiscal year 2004/05 and lowest, 2.37%, in the fiscal year 2007/08. In average, NABIL generated Rs. 3.06 net profit from Rs. 100 investment of total deposit collected, and the coefficient of variation in the ratio was 15.35%.

Likewise, except in the fiscal year 2006/07, there was significant increase in the return on total deposit of HBL. The ratio was minimum, 1.20%, in the fiscal year 2003/04 and

maximum, 2.00%, in the fiscal year 2007/08. In average, HBL gained Rs. 1.56 from mobilizing Rs. 100 of total deposit, and the coefficient of variation in such return was 21.71%, indicating inconsistency. However, the return on total deposit in EBL was in fluctuating trend, and thus ranged from 1.63% in the fiscal year 2006/07 to 1.88% in the fiscal year 2007/08. In average, the ratio was 1.74%, which indicated that EBL earned Rs. 1.74 from Rs. 100 mobilization of total deposit collected. However, the coefficient of variation of 5.74% indicated consistency in the ratio.

Similarly, the return on total deposit in NIBL increased for the first four fiscal years, i.e. from 1.32% in the fiscal year 2003/04 to 2.05% in the fiscal year 2006/07, and then decreased to 2.02% in the fiscal year 2007/08. In average, the net profit earned by NIBL represented 1.78% of the total deposit collected and the coefficient of variation on such return was 17.03%.

Comparing five banks on the basis of return on total deposit it can be concluded that NABIL was more efficient in mobilizing the deposit in productive sector, since the net profit to total deposit of NABIL was highest (3.06%) in comparison with that of SCBNL (2.75%), HBL (1.56%), EBL (1.74%) and NIBL (1.78%).

Figure 4.12

Return on Total Deposit Ratio
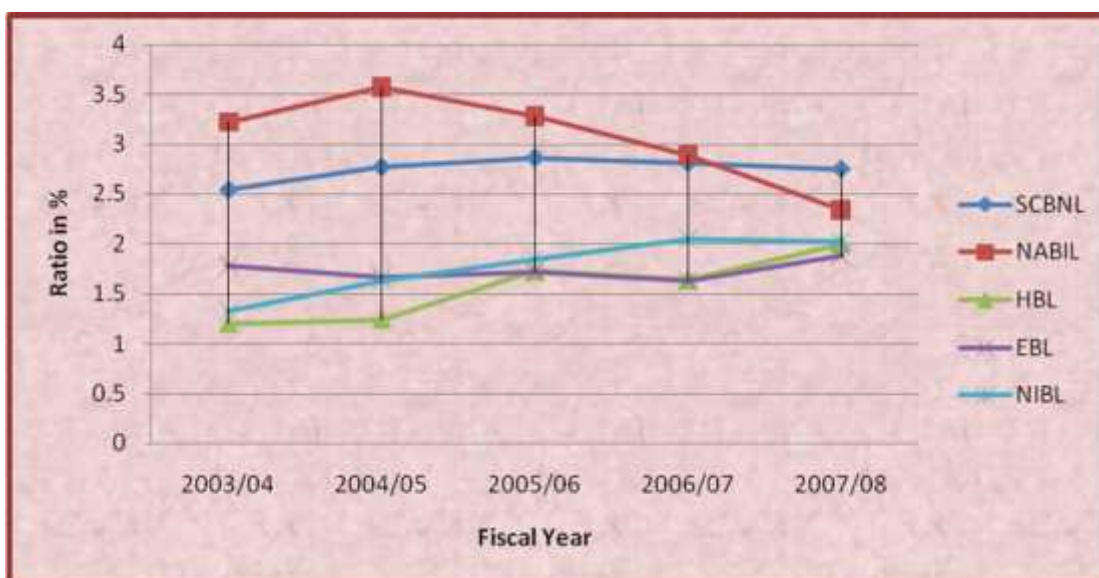
4.2.7 Interest Paid to Interest Income Ratio

Interest paid to interest income ratio reveals the proportionate relationship between interest paid on different liabilities and interest income from different sources. In this present study, 'Total interest expenses' includes interest paid on deposits and borrowings. And 'interest income' includes the interest form loan and advance, cash-credit and overdraft, government securities, inter bank and other investments.

Table 4.13

Interest Paid to Interest Income Ratio

FY	SCBNL	NABIL	HBL	EBL	NIBL
2003/04	26.46	28.25	39.45	48.14	44.60
2004/05	24.00	22.79	38.85	41.65	39.98
2005/06	25.49	27.26	39.89	44.43	41.86
2006/07	29.25	35.00	43.22	45.19	43.25
2007/08	29.65	38.33	41.95	40.85	45.22
Mean	**26.97**	**30.33**	**40.67**	**44.05**	**42.98**
S.D.	**2.43**	**6.25**	**1.84**	**2.92**	**2.12**
C.V.%	**9.01**	**20.62**	**4.52**	**6.63**	**4.93**

(Source: Appendix I)

The above table measured the efficiency of the bank in controlling interest expenses in proportion to the interest income earned. The table revealed that the interest expenses to interest income earned ratio of SCBNL was 26.46% in the fiscal year 2003/04, then decreased to 24.00% in the fiscal year 2004/05, and then followed increasing trend in the remaining fiscal years and finally reached to 29.65% in the fiscal year 2007/08. The table verified that the inability of SCBNL in controlling interest expenses, since interest expenses increased along with the interest income. In average, the interest expenses represented 26.97% of the total interest income and the coefficient of variation in the ratio was 9.01%. Similarly, except in the fiscal year 2004/05, the interest expenses to interest income ratio of NABIL was in increasing trend. The ratio was highest, 38.33%, in the fiscal year 2007/08 and lowest, 22.79%, in the fiscal year 2003/04. In average,

30.33% of the total interest income earned was spent on paying interest expenses, mainly to deposit holders.

Likewise, the ratio was in fluctuating trend in HBL. The ratio was maximum, 43.22%, in the fiscal year 2007/08 and minimum, 38.85%, in the fiscal year 2004/05. In average, 40.65% of the total interest income earned was spent in paying interest expenses. And the coefficient of variation in the ratio was 4.52%, which indicated quite uniformity in the ratio. Further, the interest expense to interest income ratio of EBL was highest, 48.14%, in the fiscal year 2003/04 and lowest, 40.85%, in the fiscal year 2007/08. In average, 44.05% of the total deposit has been invested in paying interest expenses and the coefficient of variation in the ratio was 6.63%, indicating consistency in the ratio.

Consequently, except in the fiscal year 2004/05, the interest expenses to interest income earned of NIBL was in increasing trend, indicating inability of the bank to control interest expenses. The ratio was highest, 45.22%, in the fiscal year 2003/04 and lowest, 39.98%, in the fiscal year 2007/08. In average, 42.98% of the total interest income has been spent in paying interest, mainly to the deposit holders, and the coefficient of variation in the ratio was 4.93%, indicating consistency in the ratio.

Comparing the banks, it can be concluded that the interest expenses increased along with the increase in interest income in each bank. However, SCBNL remained more efficient in controlling the interest cost compared to other banks, since the ratio was lowest in SCBNL (26.97%) in comparison to that in NABIL (30.33%), HBL (40.67%), EBL (44.05%) and NIBL (42.98%).

Figure 4.13

Interest Paid to Interest Income Ratio
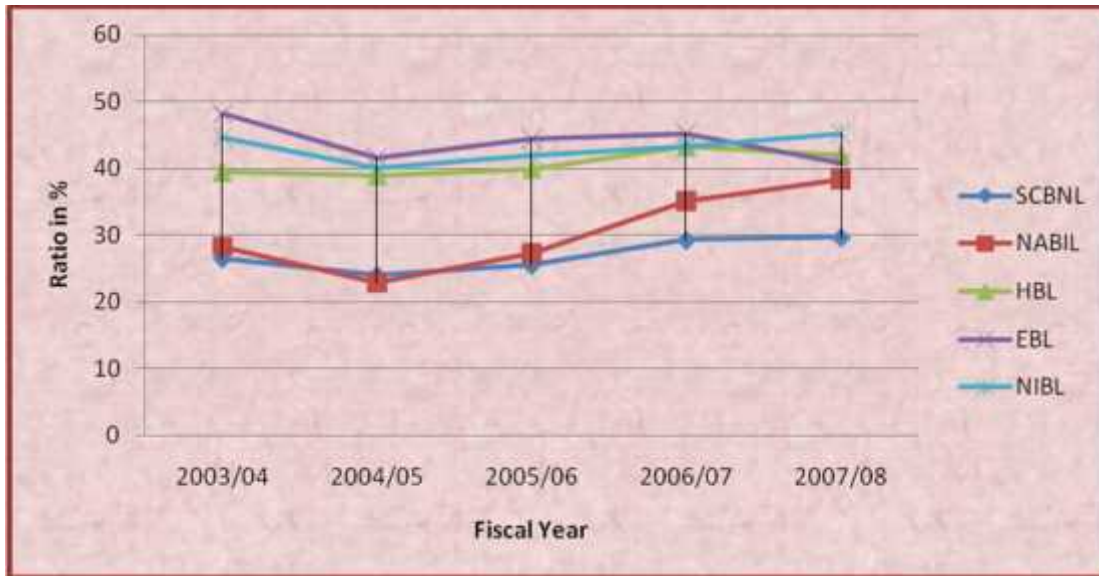
4.3 Statistical Analysis

In statistical analysis, mainly the simple correlation and regression, multiple correlation and regression, t-statistics between different related variables have been analyzed.

4.3.1 Simple Correlation and Regression Analysis

Under this part of the study, the relationship between net profit and cash (most liquid assets) and the relationship between net profit and total liquid assets have been examined to measure whether increment in liquid assets decreases the net profit.

4.3.1.1 Net Profit and Cash and Bank Balance
4.3.1.1.1 Correlation between Net Profit and Cash and Bank Balance

Let r be the correlation between net profit and cash and bank balance, and P.E. be the probable error. Then, the value of 'r' and 6 P.E. calculated in Appendix are presented in the Table below.

Table 4.14

Simple Correlation between Net Profit and Cash and Bank Balance

Banks	r	Relationship	r^2	P.E.	6 P.E.	Remarks
SCBNL	0.4550	+ ve	0.2071	0.2392	1.4351	Insignificant
NABIL	0.7220	+ ve	0.5212	0.1444	0.8665	Insignificant
HBL	-0.9794	- ve	0.9591	0.0123	0.0740	Significant
EBL	0.9352	+ ve	0.8747	0.0378	0.2269	Significant
NIBL	0.9732	+ ve	0.9472	0.0159	0.0956	Significant

(Source: Appendix II)

The above table showed that the cash and bank balance had positive relationship with the net profit in all the banks, except in HBL. The correlation coefficient between net profit and cash and bank balance of SCBNL was 0.4550, NABIL was 0.7220, HBL was -0.9794, EBL was 0.9352 and NIBL was 0.9732. The multiple correlation indicated that 20.71% change in net profit of SCBNL, 52.12% change in net profit of NABIL, 95.91% change in net profit of HBL, 87.47% change in net profit of EBL and 94.72% change in net profit of NIBL was caused by change in cash and bank balance.

Since the value of 'r' in SCBNL and NABIL was lower than the calculated value of 6 P.E., it can be considered that there existed no significant relationship between net profit and cash and bank balance. However, in HBL the value of \r\ is greater than 6 P.E., thus it can be concluded that there existed significant relationship between net profit and cash and bank balance, and hence net profit decreases with the increase in cash and bank balance. Similarly, the net profit of EBL and NIBL increases with the increase in cash and bank balance, since the value of 'r' was greater than the 6 P.E.

Hence, it can be concluded that the excess maintenance of cash and bank balance (most liquid assets) decreases the net profit in HBL. However, in EBL and NIBL the increase in cash and bank balance increases the net profit, and thus cash and bank balance had no inverse relation with the net profit in these banks.

4.3.1.1.2 Regression Analysis of Net Profit after Tax on Cash and Bank Balance

Let net profit after tax (NPAT) be the dependent variable on cash and bank balance (CBB), the beta coefficient of cash and bank balance, constant, and t-value extracted from Appendix have been presented in the Table below.

Table 4.15

Regression Analysis of NPAT on CBB

Banks	no. of observation (n)	constant (a)	Regression coefficient (b)	T-value
SCBNL	5	451.53	0.12	0.89
NABIL	5	486.69	0.10	1.81
HBL	5	1553.52	-0.63	8.39
EBL	5	38.93	0.13	4.58
NIBL	5	-73.11	0.21	7.33

(Source: Appendix II)

The regression line of net profit after tax on cash and bank balance also indicated that net profit had positive relation with the cash and bank balance in all the banks except in HBL. The per rupee increase in cash and bank balance leads Rs. 0.12 increase in net profit of SCBNL, Rs. 0.10 increase in net profit of NABIL, Rs. 0.63 decrease in net profit of HBL, Rs. 0.13 increase in net profit of EBL and Rs. 0.21 increase in net profit of NIBL, if the value of 'a' remains constant of the respective banks.

However, the calculated $t_{cal.}$ value of only HBL, EBL, and NIBL was higher than the t_{tab} value (2.78) at 4 degree of freedom and five percent level of significance. Hence, the regression line further verified that the relationship between net profit and cash and bank balance of only these three banks; HBL, EBL and NIBL, is statistically significant.

4.3.1.2 Net Profit and Liquid Assets

4.3.1.2.1 Correlation between Net Profit (NPAT) and Liquid Assets (LiA)

Let r be the correlation coefficient between NPAT and LiA and P.E. be the probable error. Then the value of 'r' and 6 P.E. calculated in the Appendix are presented in the Table below.

Table 4.15

Correlation between NPAT and LiA

Banks	r	Relationship	r^2	P.E.	6 P.E.	Remarks
SCBNL	0.8143	+ve	0.6631	0.1016	0.6097	Significant
NABIL	0.8598	+ve	0.7392	0.0787	0.4720	Significant
HBL	0.7877	+ve	0.6204	0.1145	0.6870	Significant
EBL	0.9312	+ve	0.8671	0.0401	0.2406	Significant
NIBL	0.9722	+ve	0.9452	0.0165	0.0992	Significant

(Source: Appendix II)

As shown in table, the correlation coefficient between net profit after tax (NPAT) and liquid assets (LiA) of SCBNL, NABIL, HBL, EBL and EBL was 0.8143, 0.8598, 0.7877, 0.9312 and 0.9722 respectively, which indicated positive degree of relationship between the two variables in all the banks. Coefficient of determination (r^2) of indicated that the variation in the liquid assets explained 66.31% variation in NPAT of SCBNL, 73.92% variation in NPAT of NABIL, 62.04% variation in NPAT of HBL, 86.71% variation in NPAT of EBL and 94.52% variation in NPAT of NIBL.

Since, 'r' of each bank was greater than the corresponding 6 P.E., it can be concluded that the relationship between net profit and liquid assets was statistically significant and hence NPAT increases/decreases with the increase/decrease in liquid assets. Thus, it can be considered that all the selected banks were efficient in managing the minimum level of liquid assets required which did not inversely affected the profit of the bank.

4.3.1.2.2 Regression Analysis of Net Profit after Tax (NPAT) on Liquid Assets (LiA)

Let net profit after tax (NPAT) be the dependent variable on liquid assets (LiA), then the regression coefficient of NPAT on LiA calculated in Appendix is presented in the table below.

Table 4.17

Regression Analysis of NPAT on LiA

Banks	no. of observation (n)	constant (a)	Regression coefficient (b)	T-value
SCBNL	5	-99.94	0.04	2.43
NABIL	5	313.83	0.03	2.92
HBL	5	-666.85	0.08	2.21
EBL	5	-49.93	0.05	4.42
NIBL	5	-316.09	0.09	7.19

(Source: Appendix II)

The table depicted that the regression coefficient of all the banks was positive. Thus, it can be assumed that the liquid assets of each bank had positive relationship with the net profit after tax. The beta coefficient indicated that with per rupee increment in liquid assets, the net profit of SCBNL increased by Rs. 0.04, NABIL increased by Rs. 0.08, HBL increased by Rs. 0.08, EBL increased by Rs. 0.05 and NIBL increased by Rs. 0.09, if the 'a' value of each bank remained stable.

Further, since the calculated t-value (t_{cal}) of NABIL, EBL and NIBL was greater than the tabulated t-value ($t_{tab} = 2.78\%$) at 5% level of significance and 4 degree of freedom, it can be assumed that the relationship between liquid assets and net profit after tax of these bank was statistically significant, if other things remained constant. However, the relationship between net profit after tax and liquid assets of SCBNL and HBL was statistically insignificant, since the t_{cal} was lower than the t_{tab}, and thus the net profit may not had increased with the same amount as mentioned by beta coefficient of SCBNL and HBL with per rupee increment in liquid assets.

4.3.2 Multiple Correlation and Regression Analysis

Under this part of the study, the effect of short-term investment (liquid assets) and loan and advances on net profit of the bank is examined.

4.3.2.1 Net Profit (NPAT), Loan and Advances (LA) and Investment (Inv.)

4.3.2.1.1 Multiple Correlations between NPAT, LA and Inv.

Let correlation between NPAT and LA be denoted by r_{12}, LA and Inv. be denoted by r_{23}, and Inv. and NPAT be denoted by r_{13}. Then the multiple correlation coefficient of NAPT on LA and Inv. is given by;

$$R_{1.23} = \sqrt{\frac{r^2_{12} + r^2_{13} - 2\,r_{12}\,r_{23}\,r_{13}}{1 - r^2_{23}}}$$

Table 4.18

Multiple Correlations between NPAT, LA and Inv.

Banks	R	Relationship	R^2	P.E.	6 P.E.	Remarks
SCBNL	0.9949	+ve	0.9898	0.0031	0.0184	Significant
NABIL	0.9551	+ve	0.9122	0.0265	0.1589	Significant
HBL	0.9807	+ve	0.9618	0.0115	0.0692	Significant
EBL	0.9910	+ve	0.9821	0.0054	0.0324	Significant
NIBL	0.9991	+ve	0.9982	0.0005	0.0033	Significant

(Source: Appendix III)

The above table showed the multiple correlation between net profit after tax (NPAT), loan and advances (LA), and investment (Inv.) of five concerned banks during the year covered for study. The multiple correlation coefficients (R) between NPAT, LA and Inv. of SCBNL, NABIL, HBL, EBL and NIBL was 0.9949, 0.9551, 0.9807, 0.9910 and 0.9991 respectively, which showed the perfect positive relationship among these variables in all the banks.

The coefficient of multiple determination (R²) indicated that 98.98% change in net profit of SCBNL, 91.22% change in net profit of NABIL, 96.18% change in net profit of HBL, 98.81% change in net profit of EBL, and 99.82% change in net profit of NIBL was caused by the joint variation of loan and advances and investment of the respective banks.

To measure the significance of the relationship between NPAT, LA and Inv. of the concerned banks, it would be more preferable to calculate the probable error of correlation coefficient. The same table depicted that R of all the banks was greater than 6 P.E of the corresponding bank, so it can be concluded that the relationship of NPAT with LA and Inv. was significant in all the banks. It indicated that net profit after tax depended upon loan and advances and investment.

4.3.2.1.2 Multiple Regression Equation of NPAT on LA and Inv.

Let NPAT, LA and Inv. be denoted by X_1, X_2 and X_3 respectively. Then the beta coefficient of loan and advances and investment of the concerned bank calculated in Appendix is presented in the table below.

Table 4.19

Multiple Regression Line of NPAT on LA and Inv.

Banks	No. of year	Constant (a)	Regression Coefficient (b)	
			b_1	b_2
SCBNL	5	45.69	0.03	0.03
NABIL	5	299.98	0.02	0.002
HBL	5	-295.75	0.04	0.005
EBL	5	-3.63	0.03	-0.01
NIBL	5	-173.59	0.02	0.05

(Source: Appendix III)

The above table represents the linear relationship of NPAT, with LA and Inv. of concerned banks. The constant (a) is positive in SCBNL (45.69) and NABIL (299.98) and negative in HBL (-295.75), EBL (-3.63) and NIBL (-173.59). The beta coefficient of

loan and advances (b_1) indicated that the per rupee increment in loan and advances lead to Rs. 0.03 increase in net profit of SCBNL, Rs. 0.02 increase in net profit of NABIL, Rs. 0.04 increase in net profit of HBL, Rs. 0.03 increase in net profit of EBL, and Rs. 0.02 increase in net profit of NIBL. Hence, the impact of loan and advances in net profit was highest in HBL.

On the other hand, the beta coefficient of investment (b_2) indicated that the per rupee increment in investment lead to Rs. 0.03 increase in NPAT of SCBNL, Rs. 0.002 increase in NPAT of NABIL, Rs. 0.005 increase in NPAT of HBL, Rs. 0.01 decrease in NPAT of EBL and Rs. 0.05 increase in NPAT of NIBL. Hence, the impact of investment in net profit was highest in SCBNL and negative in EBL.

4.4 Major Findings of the Study

From the above data analysis, the following major findings have been drawn;

⌡ The liquid asset of SCBNL (Rs. 16974.13 millions) was highest, and the liquid asset maintained by EBL (Rs. 5681.11 millions) was lowest in comparison with that maintained by NABIL (Rs. 10002.22 millions), HBL (Rs. 14019.13 millions) and NIBL (Rs. 7753.20 millions).

⌡ The average current ratio maintained by SCBNL was 1.08 times, NABIL was 1.09 times, HBL was 1.07 times, EBL was 1.07 times and NIBL was 1.08 times. Thus, the liquidity position of NABIL was strongest in terms of current ratio.

⌡ The representation of cash and bank balance in total deposit was highest in EBL and lowest in NABIL. The average ratio was 7.19% in SCBNL, 5.67% in NABIL, 6.82% in HBL, 10.75% in EBL and 10.65% in NIBL.

⌡ In terms of CRR, the liquidity position of NIBL was most satisfactory, and the liquidity position of EBL was worst. Except in NABIL and EBL, the CRR in all the remaining banks CRR was more than that directed by NRB in each fiscal year.

⌡ The average fixed deposit to total deposit ratio of SCBNL was 9.48% (lowest), NABIL was 19.65%, HBL was 23.49%, EBL was 31.64% (highest) and NIBL was 24.96%. Similarly, the current deposit to total deposit ratio of SCBNL was 22.10% (highest), NABIL was 16.88%, HBL was 18.35%, EBL was 9.40%

(lowest) and NIBL was 10.23%. Both of these ratios demanded highest liquidity in SCBNL and lowest liquidity in EBL.

⌡ The average net profit made by SCBNL was Rs. 648.68 millions (highest), NABIL was Rs. 606.22 millions, HBL was Rs. 431.30 millions, EBL was Rs. 259.34 millions (lowest) and NIBL was Rs. 386.70 millions. Similarly, the average net profit margin of SCBNL, NABIL, HBL, EBL and NIBL was 34.90%, 32.68%, 34.90%, 21.24% and 22.27% respectively. In terms of net profit achieved and net profit margin, SCBNL was most efficient.

⌡ However, HBL was more efficient to optimally mobilize the loan and advances, since the interest income on loan and advances was highest in HBL (10.08%).

⌡ The mobilization of shareholders' equity by SCBNL was most effective than that of others. Since the average ROSE of SCBNL (34.59%) was highest in comparison with that of NABIL (31.88%), HBL (22.80%), EBL (22.82%) and NIBL (23.60%).

⌡ NABIL was most successful to optimally mobilize the total assets, since the average ROA of NABIL was highest. The average ROA of SCBNL, NABIL, HBL, EBL and NIBL was 2.43%, 2.81%, 1.39%, 1.50% and 1.54% respectively. Further, the return on total deposit was highest in NABIL (3.06%) and lowest in HBL (1.56%).

⌡ Since the average interest paid to interest income ratio was lowest in SCBNL (26.97%), SCBNL was more success in controlling interest cost. The ratio was highest in EBL (44.05%).

⌡ Except in HBL, the cash and bank balance had positive relation with the net profit. The correlation coefficient between cash and bank balance and net profit in HBL was -0.9797. However, the liquid assets had positive relation with the net profit in all the banks. The correlation between net profit and liquid assets was highest in NIBL (0.9722) and lowest in HBL (0.7877).

⌡ Similarly, the multiple correlation indicated that the relation of NPAT with loan and advances and investment was perfectively positive in all the banks. The correlation coefficient was highest in NIBL (0.9991) and lowest in NABIL (0.9551).

CHAPTER – V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The banking in Nepal is still facing with various problems like strong unorganized sector, weak position and unhealthy competition, weakness of Nepal Rastra Bank, lack of research, training & development etc. However, current political and economical scenario of the country coupled with prudential norms of Nepal Rastra Bank and stiff competition may make the entrepreneurs give a second thought to the idea to establishing banks. Liquidity management is directly affected by the unbalance competition and the rapid development of information technology. Even though, liquidity management is not a new term in the banking sector, it is still unpredictable as it was and is most crucial for the profitability. Such stage can be reduced by proper policy decision taken by understanding the depth and breadth of liquidity. The meaningful solution itself generates a lot of benefits.

Liquidity management can overall describe the security management of the cash balance in a systematic and scientific way. Liquidity is that part of the total assets, which can be paid immediately to meet the current obligation. The liquidity management is used to describe money and assets that are readily convertible into money within very short span of time. The liquidity of assets refers to the ease and certainty with which it can be turned into cash. Bank maintain liquidity in the form of cash and bank balance, placement of money at call or short notice and investment in government securities and other securities readily convertible into cash. It is such a large proportion of deposit payable on demand. Inadequate liquidity tarnishes the image of the organization while excess liquidity is detrimental to the profitability.

The main objective of this study is to analyze the Liquidity Management and profitability position of the commercial banks of Nepal. However, the study of all the commercial

banks was almost impossible and thus only five banks, namely Standard Chartered Bank Nepal Limited, Nepal Arab Bank Limited, Himalayan Bank Limited, Everest Bank Limited, and Nepal Investment Bank Limited, were taken as sample. To achieve the objectives set out, different financial tools like liquid assets trend, Cash reserve ratio, cash and bank balance to total deposit, , fixed assets to total deposit, net profit margin, return on shareholders' equity, total assets, return on return on total deposit and others were analyzed. And, for the convenience, the study has been mainly divided in five main chapters; first chapter dealt with introduction, second dealt with review, third presented research methodology, fourth presented data analysis, and fifth ended with summary, conclusion and recommendations.

5.2 Conclusion

On the basis of liquid assets maintenance, it can be concluded that the liquidity in SCBNL was comparatively highest and that of EBL was comparatively lowest. In contrast, the short-term liability paying capacity of NABIL was better than that of others', since the average current ratio of NABIL was greatest in comparison with that of SCBNL, HBL, EBL and NIBL. Similarly, on the basis of cash and bank balance to total deposit ratio, it can be concluded that EBL had the practice of highest percentage of total deposit collected in the form of cash and bank balance than other banks to meet the immediate cash requirement. The Cash reserve ratio indicated that liquidity position of NIBL was most satisfactory than that of others', since the average CRR maintained by NIBL was highest, and the liquidity position of EBL was most terrible. Also, the liquidity policy adopted by NIBL was most stable than that of others'. On the basis of fixed deposit to total deposit ratio, it can be concluded that the ratio was highest in EBL and lowest in SCBNL. And, hence EBL require comparatively less liquidity ratio than other banks to pay the fixed deposit holders. Comparing five banks on the ground of current deposit to total deposit, it can be concluded that SCBNL requires more liquidity than other banks to meet the demand of current deposit holders, since the ratio of current deposit to total deposit of SCBNL was highest in comparison to other banks.

Similarly, SCBNL made the highest net profit than other banks and the net profit of EBL was lowest. However, within the five year periods, the progression of NIBL in making

profit cannot be ignored. The net profit margin enlightened that SCBNL and HBL were most successful than other banks in controlling the operating and other non operating cost, as a result their net profit margin was highest in comparison with that of NABIL, EBL and NIBL. It can also be concluded that HBL was most efficient in mobilizing the funds in credit and advances, since the interest yielded to total credit ratio was highest in comparison with that of the other banks'. However, SCBNL was most effective in optimally mobilizing the shareholders' equity, since ROSE of SCBNL was highest in comparison with that of others'. In contrast, NABIL was most successful to optimally mobilize the total assets and the deposit in productive sector in generating maximum net profit, since the ROA and return on deposit of NABIL were highest. Eventually, SCBNL remained more efficient in controlling the interest cost compared to other banks, since the ratio was lowest in SCBNL.

The statistical analysis led to conclude that except in HBL, there existed positive relationship between cash and bank balance and net profit. In HBL, there was inverse relationship between net profit and cash and bank balance, and thus net profit decreases with the increase in cash and bank balance. However, the relationship between net profit and cash and bank balance was statistically significant only in HBL, EBL and NIBL. Further, there was positive significant relationship between net profit and total liquid assets.

5.3 Recommendations

On the basis of the major findings drawn on the previous chapter and the conclusion made in this chapter, the following recommendations have been given for the enhancement of the liquidity and profitability position of the sampled banks;

) The liquid assets maintained by EBL was comparatively lowest than that of other banks. Thus, it would be better if EBL increases the liquid assets considering the short-term liabilities requirement.

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- The current ratio of all the banks was lower than the benchmark of 2:1. Although, such benchmark is not most necessary in the banking sector, it would be better if all the sampled banks keep such ratio to ensure the sound liquidity position.

- The cash reserve ratio maintained by NABIL and EBL did not meet the CRR directed by NRB in most of the years. Thus, NABIL and EBL should be careful enough while maintaining CRR, and thus should not jeopardize the credibility of the bank.

- It would be better if all the banks focus on collecting the deposit through fixed deposit, which requires less liquidity in the bank and the bank can invest such money in productive sector.

- The net profit earned and the net profit margin of EBL were lowest. It would be better if EBL reengineers the portfolio of its investment to achieve higher profit.

- Although SCBNL earned highest profit within these five years period, the interest income to loan and advances of SCBNL was lowest. Thus, SCBNL should seek the high interest earning grant.

- To retain the existing shareholder and fascinate the potential investor, HBL need to generate more return on sharholders' equity. Similarly, EBL needs effective mobilization of total assets to generate more income and effective control of interest expenses.