CHAPTER -1
INTRODUCTION

1.1 GENERAL BACKGROUND

Economic development of any country is mainly influenced by the growth of banking industry in that country. Bank is a business establishment that safeguards people's money and uses it to make loans and investments. Banking is one of those indispensable industries about which few of us can afford to be ignorant. As recent problems in the global economy have demonstrated, our lifestyles and living standard often depend heavily on banker's willingness to extend credit, deposits and other financial services to us as individuals and to business and institutions we work for and trade with. Banks are the principal source of credit for millions of individuals and families and for many units of government (school district, cities, countries etc.) during transaction businesses and consumers make payments from bank-provided checks, debit card or credit card. Hence, bank can be said as a financial intermediary accepting deposits and granting loans offer wildest menu of services of any financial institutions.

Banks can also be said as a financial service firms which produces and sells professional management. Their success hinges on their ability to identify the financial services the public demands, produce those services efficiently and sell them at a competitive price. In broadest sense, a bank is a financial intermediary that performs one or more of the following functions: safeguards and transfers of funds, lends or facilitates lending guarantees creditworthiness and exchange money. Such institutions as commercial banks, central banks, trust companies, finance companies, life insurers and investment bankers provide these services.

The concept of bank has been modifying due to the change of time and situations. Many well-known economists, scholars and acts of nations of the world have given definitions regarding bank. Some of the significant definitions are stated as below:

"A bank is an organization whose principal operations are concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing to other for expenditure."

- Kent

"Banker's business is to take the debts of other peoples to offer his in exchange, and thereby create money."

- G. Crowther

"An organization where people and business can invest or borrow money, change it to foreign money, etc. or a building where these services are offered."

- Cambridge International Dictionary of English

Through these definitions, we can say that banks are those financial institutions that offer several financial services. It can also be described as the custodian of saving of general people and establishment as well. It would be quite impossible for the entrepreneur to acquire the saving of general public for investment without banks. Therefore, the bank can be best described as the financial institution which accepts saving of public by providing them with certain rate of interest and loan it to needy investors by charging certain rate of interest and earn some profit in the process of intermediation. Modern banking being a lot more than just deposit and loan cater a range of services viz. remittance of money, letter of credit, bank guarantee, issue of money, controlling monetary activities of entire nation.

A bank is judged on the basis of **C**apital, **A**ssets, **M**anagement, **E**arning, **L**iquidity and **S**ensitivity to market risks (CAMELS). Almost all the government banks are running at loss. Though almost all the private sector banks are showing profit, it is very difficult to call the sound if appraised from CAMELS approach. Bank's presence on the World Wide Web has explored into great prominence in the most recent era. With thousands of banks displaying their own individual websites and well over 100 sites tracking industry trends. In short bankers have rushed onto the internet in great number and are expanding their web beachhead daily making it easier all the time to follow this fascination industry into cyber space. (Dahal, 2002)

Moving towards the Nepali banking sector, it is now at an exciting point in its development. It is going through a rapid transformation. With liberalization in financial markets and integration of domestic markets with external markets, bank operations have become more complex and dynamic. We are geared to meet the challenges and keep abreast with the changes. The opportunities to enter new business and new markets and to deliver higher level of customer service are immense. Four trends that will fundamentally alter the banking industry in future are consolidation and merger, globalization of operations, development of new technology and sustenance of traditional services. With the new capital adequacy norms coming through, it is expected that few banks have no choice but to merge. In order to have a sustainable growth in the bottom line, banks must increase their global market operations, especially in treasury-products by being more innovative and selecting a pool of products which the global market is offering today to reward the calculated risk taken by the bank. (Jha, 2005)

1.1.1 Establishment of Banking System In Nepal

Though modern banking practices are of recent origin in our country, historical evidences show the presence of some crude banking practices in the earlier period. The contributors to the development of a Nepalese banking system according to the respective time are considered to be Kind Guna Kam Dev, a Sudra Merchant Shankhadahar, the business group 'Tankadharies' of Kantipur and also 'Tejarath', a Government financial institution established by Rana Prime Minister Rannodip Singh in 1880 A.D. Moreover, the setting up of 'Tejarath Adda', considered as 'The father of modern banking institutions in Nepal has been regarded as the first remarkable step in organize banking.

1.1.2 History of Modern Commercial Bank

According to the definition of H.L., a banker or a bank is a person or company carrying on the business of receiving money and collecting drafts, for customers subject to the obligation of honoring cheques drawn upon them from time to time by the customers to the extend of the amount available on their customer (Shekhar & Shekhar, 1990). Commerce is the

financial transactions related to selling and buying activities of goods and services. Therefore, commercial banks are those banks, which work from commercial viewpoint. They perform all kinds of banking functions as accepting deposits, advancing credits and long term credit to trade and industry. They also operate off balance sheet functions such as issuing guarantee, bonds, letter of credit, etc.

The history of modern commercial banking industry dates back to 1937 A.D. in which year Nepal Bank Ltd. Was incorporated. Till 1984, financial sector was closed to private sector and foreign investors. HMG/Nepal started to liberalize the financial sector in the first half of the 1980s. But it speeded up this process only in early 1990s. Private sector rushed into the finance industries especially after the restoration of democracy in 1990.

Most of the commercial banks came into operation during the decade of 1990s. Government of any countries highly monitors and controls the finance industry even in the liberalized market economy. Government does so due to its high gravity in the national economy, and to build up the confidence of private sector in its financial system. Nepal Rastra Bank (NRB) as an apex monetary authority of the country started to monitor and control the finance industry especially at the end of the 1990s by issuing the directives to the financial institutions (FIs). It initiated to offsite and onsite supervision of FIs to maintain their sound financial health and to build up the confidence of private sector in the liberalized financial system and protect the interest of investors (Baral, 2005).

1.1.3 Functions of Commercial Banks

There are three primary functions of a bank. They are as follows:

a. Safe guarding:

Bank plays the role of safeguarding as it keeps depositors money safe and takes decision wisely about making loans and investment. Banks have the following functions on safeguarding. They are

- Keep record of transition,

- Identify the culprit and
- Take legal action when theft/fraud/loan/defaulter takes place

b. Transferring and Exchanging Money:

Bank provides us the facility to make payment to someone and get payment from someone, using check, draft and electronically. This makes our life easy because we don't need to carry money every time with us. Customer can have multiple accounts in multiple cities to transfer money from one account to another account.

c. Lending:

Banks take decisions wisely about making loans and investment. Banks give loan only to those who qualify to get according to banks parameters. In this way risk of loosing money by the bank gets minimized.

NRB (2008) stated, the functioning of the banks can be classified into Class A, Class B, Class C and so on. Class "A" includes 25 licensed commercial banks that can be government owned, privately owned by government and the private sector. They collect deposits from public, invest in loans and overdrafts, sell and purchase bills, open letter of credit for export and import, provide bank guarantee, deal in foreign exchange and invest in stock and bonds. Class "B" includes 58 development banks. They take high risk by providing loans for venture capital. They provide loans to industry, agriculture, import-export, cottage and small industries, cooperatives. Further, finance companies fall under "C" class with 79 companies operating to provide service.

They accept fixed and saving deposits with higher rate of interest. They provide loans to industries and individuals and charge higher rate of interest. Micro Credit Development Banks comes under "D" class with 12 banks. Moreover, 16 savings and credit co-operatives (limited banking) and 46 non-government organization (NGOs) are also actively participating in its own way. The number of banks as per its class is given in table no. 1.2.

Table no. 1.2.

No. of banks and Non-Bank Financial Institutions

Regulator for Banking Activities	Nepal Rastra Bank
Class A: Commercial Banks	32
Class B: Development Banks	58
Class C: Finance Companies	79
Class D: Micro Credit Development Banks	12
Savings and Credit Co-operatives	16
Non-Government Organizations (NGO)	46

(Source: Nepal Rastra Bank Report)

Finally, it is relevant to define the meaning of commercial bank according to commercial bank act, 2013 (1974), which requires, commercial bank means a bank which operates currency exchange transaction, accepts deposits, provide loan and perform dealing relation to commerce, and other than these banks which have been specific for the cooperative, agriculture, industry of likely and any other specific objective.

George and his friends in their study affirmed that CAMEL model is an internationally accepted tool for evaluating performance and predicting bank failures. In his study, he further stated that CAMEL stands for **C**apital Adequacy, **A**sset Quality, **M**anagement Quality, **E**arnings Quality and **L**iquidity. It is considered as the best available method for evaluating bank performance and healthy position of the bank since it considers all areas of banking operations.

Baral in his journal (2005), states that NRB has adopted the CAEL (capital adequacy, asset quality, earning and liquidity) system to check up the health of FIs. It has yet to use the CAMELS to evaluate the financial performance and check up the financial health. Independent outsiders also can not use all components of CAMELS to check up the financial health of FIs in Nepal due to the full disclosures of required financial

information to outsiders. NRB dictated FIs to disclose the financial information in uniform way only in the fiscal year (FY) 2001/2002. In this study, attempt has been made to check up the financial health of joint venture banks in the framework of CAMEL.

1.1.4 Rational of Regular Health Check up of Commercial Banks

Not only the commercial banks but also any FIs require regular health check up to maintain the confidence of private sector in financial system of the country and protect the interest of depositors, lenders, shareholders and other stakeholders. The gravity of the importance of sound financial has increased tremendously after the international financial turmoil of the second half of the1990s. International monetary authorities such as International Monetary Fund and international FI like the World Bank have underpinned the need of healthy financial sector to build up the confidence of private sector in the liberalized financial system. Therefore, they have directed their member countries to reform the financial sector and conduct the regular health check up of FIs through onsite and offsite supervision. International FIs like the World Bank and Asian Development Bank (ADB) are supporting the project run in the vein of reforming process of the financial sector of different countries. For example, the World Bank is constantly providing the technical and financial support to reengineer NRB and restructure Nepal Bank Ltd. and Rastriya Banijya Bank (NRB 2005).

Health of financial sector depends on the health of individual FIs. In addition, individual FI's health counts on the myriad macro and micro factors. Among the macro factors, political stability and the real sector growth are vital. The financial health of FIs cannot sustain without the political stability and sustainable real sector growth with sound health. However, the intensity of contagious effect of these macro variables may vary from one individual FI to another. Therefore, health of individual FI should be checked up regularly to know the intensity of such effect.

Health of an individual FI is a function of multiple factors such as quality of its assets, liquidity position, capital base, management quality, market sensitivity and earnings. All these factors affect the different types of risk to an individual FI. Different types of risks: credit risk, interest rate risk, liquidity risk, market risk, off-balance sheet risk, foreign

exchange risk, sovereign risk, technology, operational risk, insolvency risk, affect the health of an individual FI adversely if they are not managed in sustainable manner (Saunders and Cornett, 2004). A number of factors such as quality of assets, financial market condition, foreign exchange market, composition of assets, financial health of its clients, profitability, capital adequacy, affect the degree of these risks. Financial health check-up of an individual institution should be made regularly to detect the adverse effect of these risks on its health. Micro-prudential indicators such as capital adequacy, asset quality, management soundness, earning and profitability, liquidity, sensitivity to market risk, and market based indicators like market price of financial instruments, credit ratings are used as indicators of the sound health of an individual FI (Evan and others, 2000). These indicators are explained at length in the following section of the study.

1.2 Statement of Problem

Nepal being the least developed country with poor economy, still has a good position in banking sector. The open and liberal economic policy adopted by the government led towards the establishing of many commercial banks in Nepal. NIBL, NABIL, and HBL are the outcome of the same policy too. It has been seen that there are many similarities between these banks e.g. they were established more or less during the same period of time as joint venture bank. It was also established with almost an equal capital. They have been operating under the same condition and environment. The organizations structure of these companies also doesn't differ much comparatively.

In spite of these, the performances of these banks seem to be different and inconsistent. The factors that differentiate these banks from one another are their profitability, earning capacity etc. in this research; emphasis is laid up on the efficacy of commercial banks. This study is concerned with the research of efficacy of the banks and is getting more perilous time in liquidity determination. There are already 32 commercial banks under the Nepalese scenario very few studies have been carried out to study their actual operation and the effectiveness of their services. But with the limitation of the studies, what could be the possible reasons behind the mushrooming of commercial banks and its increasing number can recoup from our studies.

1.3 Objectives of the study

The main objective of this report is to analyze the financial performance of banks in the light of cash flow management regarding NIBL, NABIL and HBL. The fluency of cash management is the major objectives of their study. Besides, other objectives are:

1. To examine the Capital Adequacy through Capital Adequacy Ratio (CAR) and Core Capital ratio (CCR).

2. To examine the Assets Quality through Non Performing Asset (NPA) Ratio, Loan Loss Coverage Ratio (LLCR) and Loan Loss Reserve Ratio (LLRR).

3. To examine Management Quality through Management Efficiency Ratio (MER).

4. To examine Earnings through Earning per Share (EPS), Return on Assets (ROA) and Return on Equity (ROE).

5. To examine the liquidity by using Cash Reserve Ratio (CCR), Cash and Bank (C&B) Balance Ratio analysis and Investment in Government Securities (IGS) Ratio.

1.4 Organization of the Study

This is the study of the liquidity position of three banks i.e. NIBL, NABIL & HBL this whole study will be divided into five chapters, each one focusing on a particular area. The units will be listed in the contents.

The **first chapter** serves as an orientation for the readers of the report providing them perspective view of the reports for better understanding. It also makes the readers equipped to understand the report. Thus, it serves as preliminary introductory detailed information, which would be dealt on upcoming chapters. It is organized as general background, statement of the problem, objectives of the study, significance of the study, research methodology, limitations and organization of the study.

The **second chapter** includes conceptual framework along with review of published & unpublished reports, booklet, journals, magazines, research works & thesis and useful website relating to liquidity.

The **third chapter** describes the various sequential steps that will be strictly followed in conducting this research. Different financial as well as statistical tools have been used to find out the actual performance of the three banks. The main financial tool adopted to analyze the data is Accounting Ratio. Other simple, statistical analysis such as standard deviation, coefficient of variation, regression etc. will be calculated where necessary. Moreover, the forecasting of the next five years data will be done with the help of regression.

The **fourth chapter** deals with the static evidence and facts to clarify the research work. Here the study presents the collected data for various purposed of analysis to obtain the answer to the research questions. Here, the calculations of different accounting ratios and their applications will be presented. Further more, as mentioned in chapter three, various other analysis and interpretations will be done with the help of various statistical tools like arithmetic mean, correlation, co-variation, regression etc.

The **fifth chapter** is the main body of the research. On the basis of the data analyzed the research will reach in final phase to conclude the analysis of this chapter. This chapter further deals with the major findings, prevailing issues and gaps of the concerned banks. The suggestions to the related banks will also be given which will help the bank to improve the company in many ways.

Finally, an extensive bibliography and appendices are also presented at the end of this thesis work.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Conceptual Review

The preview of banking sectors along with the general concept of CAMEL is already mentioned in the earlier chapter. This chapter basically highlights the existing literature and research work related to the present research being conducted with the view of finding out what had already been explained by the previous researchers and how the current research adds further benefits to the field of research. Here, review of various books, research studies and articles have been used to make clear about the concept of CAMEL as well to recall the related previous studies made by various researchers.

2.1.1 Conceptual Prescription of CAMELS Framework

The CAMEL framework comes from the financial area. It is one of the most significant areas of research in this modern world. Therefore, this can be regarded as the most upcoming important and inseparable parts of financial management.

Financial management is directly related with finance, that is, money. But finance, today, is the best characterized as ever changing, with new ideas and techniques. Today finance is not related with the money matters but also subject to acquiring, managing and efficient utilizing of the funds for businesses. Hence it is obvious that, this world “finance” is the matter of concern to the various sectors. For example, it is the management of the firm, which is always interested in all aspects of financial analysis to adopt a good financial management system and for the internal control of the enterprise. Similarly, trade creditors are more interested in cash flow ability of the enterprise to service debt over a long run. However, shareholders of the firm are principally concerned with the present and expected future earnings and the stability of the earnings as well as their variation with the earnings of other

enterprise. Thus, shareholders are more concentrated on the profitability of the firm. Hence, different people have different perspective on this matter.

The present structure of the financial institutions is based on the foundation laid by commercial banks. Hence, banks are regarded as one of the intermediaries to mobilize capital resources and channel them into productive sectors. Resource mobilization is, thus, assumed to be vital and challenging work in the present day world economy. But in this era of financial, economic and political liberalization, the task is more complicated then before. Thus, there is a need of foreign investment in order to meet the standards to cope with the worldwide competition.

In developing countries these foreign investment plays a significant role in economic development by providing capital, technology, skills, managerial efficiency and others. So, foreign joint investments have been considered as very important. They are mechanism through which resources are mobilized and make flowing from non-productive sectors.

There has been substantial growth in commercial bank since 1990. The establishment of joint venture banks forces the other commercial banks to improve efficiency and to adopt modernization of new technology, new procedures and computerization systems.

The existence of foreign joint venture banks has created an environment of healthy competition among the existing commercial banks. The increased competition forces the existing banks to improve their quality and extend service by simplifying procedures and by training, motivation their own staff to respond to the new challenges. (Chopra, 1990)

Sunil Chopra in his article, “Role of Foreign Banks in Nepal” had attempted to focus the role of foreign banks in Nepal. According to him, the joint venture banks are playing dynamic and vital role in the economic development of the country that will undoubtedly increase with time. (Chopra, 1989)

Similarly, Bedi B. Bajracharya, in his article, “Monetary Policy and Mobilization in Nepal” had concluded that the mobilization of domestic saving is one of the prime objectives of the

monetary policy in Nepal. It can, however, be fulfilled only by the commercial banks as they are the active financial intermediary for generating resources in the form of deposit and providing credit to the investors.

The Basle Committee on Banking Supervision of the Bank of International Settlements (BIS) has recommended using capital adequacy, assets quality, management quality, earnings and liquidity (CAMEL) as criteria for assessing a financial institutions (FI) in 1988 (Asian Development Bank, 2002). The sixth component, market risk (S) was added to CAMEL IN 1997 (Gilbert, Meyer and Vaughan 2000). However, most of the developing countries are using CAMEL instead of CAMELS.

CAMELS framework is a common method for evaluating the soundness of FIs. This system was developed by regulatory authorities of the U.S. banks. The Federal Reserve Bank, the Comptroller of the Currency and the Federal Deposit Insurance Corporation all use this system (McNally, 1996). Monetary authorities in the most of the countries are using this system to check up the health of an individual FI. In addition, International Monetary Fund also is using the aggregated indicators of individual FIs to assess the financial system soundness of its member countries as part of its surveillance work (Hilbers, Krueger and Moretti, 2000).

The six following subsections describe the components of the CAMELS framework.

2.1.1.1. Capital Adequacy

CAMELS framework system looks at six major aspects of an FI: capital adequacy, asset quality, management soundness, earning, liquidity and sensitivity to market risk (Hilbers, Krueger and Moretti, 2000). The first component, capital adequacy ultimately determines how well FIs can mange with shocks to their balance sheets. Thus, it tracks capital adequacy ratios that take into account the most important financial risks—foreign exchange, credit, and interest rate risks –by assigning risk weightings to the institutions assets. For the purpose of capital adequacy measurement, bank capital is divided into Tier I and Tier II. Tier I capital is primary capital and Tier II capital is supplementary capital.

In Nepalese context, Tier I and Tier II. Tier I (core/primary) capital includes paid up capital, share premium, non-redeemable preference share, general reserve fund, accumulated profit, capital redemption reserve, capital adjustment fund, and other free reserve. Amount of the goodwill, fictitious assets, investment in the financial instruments issued by an organized organization in excess to the limit specified by NRB, and investment in the financial instruments issued by the organizations having the own financial interest is deducted from the sum of all elements of the primary capital to arrive at the core capital. Similarly, Tier II (supplementary) capital comprises of general loan loss provision, assets revaluation reserve, excess loan loss provision, and investment adjustment reserve. Thus, the total capital of commercial banks is the sum of core capital and supplementary capital (NRB, 2005).

Leverage ratio can be used to measure the capital adequacy of a bank. This is the ration of bank's book value of its assets. The higher ratio shows the higher level of capital adequacy. The U.S.A. Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 has fixed the five target zones: i)5% and above ii) 4% and above iii) under 4%, iv) under 3%, v) 2% and less of leverage ratio. The leverage falling in the last three zones indicates that bank is adequately capitalized. The leverage falling in the last three zones indicates that bank is inadequately capitalized and regulars should take prompt corrective action to bring the capital to the desirable level (Saunders and Cornett, 2004).

The leverage ratio stated in the foregoing discussion is simple capital to assets ratio. In other words, assets are not risk adjusted. The 1993 Basel Accord enforced the capital ratio to risk adjusted assets of commercial banks. According to this accord, core capital must equal to or exceed 4 percent of the risk weighted assets of the commercial banks. Similarly, the amount of the supplementary capital should not exceed 8 percent of risk weighted assets (Saunders and Cornett, 2004). NRB initially fixed the core capital at the level of 4.5 percent of the risk weighted assets and total capital at the level of 9 percent of risk weighted assets of commercial banks (NRB 2058). For the current FY2005/06, the mandatory levels of core capital and total capital are 6 percent and 12 percent of risk weighted assets of commercial banks. But NRB has strictly directed all commercial banks that the amount of the supplementary capital should not be in excess to the amount of the core capital (NRB, 2005).

2.1.1.2 Asset Quality

Credit risk is one of the factors that affect the health of an individual FI. The extent of the credit risk depends on the quality of assets held by an individual FI. The quality of assets held by an FI depends on exposure to specific risks, trends in non-performing loans, and the health and profitability of bank borrowers – especially the corporate sector. We can use a number of measures to indicate the quality of assets held by FIs. Asian Development Bank suggests these measures—loan concentration by industry, region, borrower and portfolio qualify; related party policies and exposure on outstanding loan, approval process of loan, check and balance of loans; loan loss provision ratio; portfolio in arrear; loan loss ratio; and reserve ratio—of checking the quality of assets of an FI (Asian Development Bank, 2002).

NRB uses composition of assets, non-performing loan to total loan ratio; net non-performing loan to total loan ratio as the indicators of the quality of assets of commercial banks (NRB 2005). NRB has directed the commercial banks in regards to the concentration of the loan. Any licensed FI can grant the fund base loan to a single borrower or borrowers related to the same business group up to the 25 percent of its primary capital. In the same vein, it can provide the non-fund base loan up to 50 percent of its core capital (NRB 2005). Similarly, it has directed FIs to classify the loans into performing loan and non-performing loans. The loans that are not due and 3 months past due fall in the class of performing loans/performing assets and others do in the non-performing loans. Further, non-performing loans are classified into three groups: substandard, doubtful, and bad debt/ loss (NRB Directive, 2004). Commercial banks have to make 1 percent provision for pass loan/performing loan, 25 percent for substandard loan, 50 percent for doubtful loan and 100 percent for bad loan (NRB, 2005). Non- performing assets in the total assets in the total assets of commercial banks was 22.77 percent in the FY 2003/04. But the percentage of non-performing assets of an individual commercial bank varies from 0.76 percent to 57.64 in the same fiscal year. But the normal international standard of the percentage of non-performing assets is 5-8 percent of the total assets.

2.1.1.3 Management Quality

Sound management is the key to bank performance but it is difficult to measure. It is primarily a qualitative factor applicable to individual institutions. Several indicators,

however, can jointly serve as an indicator of management soundness. Expenses ratio, earning per employee, cost per loan, average loan size and cost per unit of money lent can be used as a proxy of management quality. Asian Development Bank recommends cost per unit of money lent as a proxy of management quality. But this can not be used as an indicator of management quality in Nepal. Since the data on amount of total loan mobilized during a particular FY is not available in published financial statements and annual reports. As stated earlier, NRB has skipped up this component of CAMELS in the performance evaluation of commercial banks (NRB, 2005).

2.1.1.4 Earning Performance

Earning capacity or profitability keeps up the sound health of an FI. Chronically unprofitable FI risks insolvency on one hand and on the others, unusually high profitability can reflect excessive risk taking of an FI. There are different indicators of profitability. Return on assets, return on equity, interest-spread ratio, earning-spread ratio, gross margin, operating profit margin and net profit margin are commonly used profitability indicators. NRB uses return on total assets as an indicator of profitability of a commercial bank. In addition, it uses the absolute measures such as interest income, net interest income, non-interest income, net non-interest income, non-operating income, net non-operating income and net profit, to evaluate the profitability of a commercial bank (NRB, 2005).

2.1.1.5. Liquidity

Liquidity risk threats the solvency of FIs. In the case of commercial banks, first type of liquidity risk arises when depositors of commercial banks seek to withdraw their money and the second type does when commitment holders want to exercise the commitments recorded off the balance sheet. Commercial banks have to borrow the additional funds or sell the assets at fire sale price to pay off the deposit liabilities. They become insolvent if sale price of the assets are not enough to meet the liability withdrawals. The second type of liquidity risk arises when demand for unexpected loans can not be met due to lack of the funds. Commercial banks can raise the funds by running down their cash assets, borrowing additional funds in the money markets and selling off other assets at distressed price. Both liability side liquidity risk (first type risk) and asset side liquidity risk (second type risk) affect the health of commercial banks adversely. But maintaining the high liquidity position

to minimize such risks also adversely affects the profitability of FIs. Return on highly liquid assets is almost zero. Therefore, FIs should strike the tradeoff between liquidity position and profitability so that they could maintain their health sound.

Commercial bank's liquidity exposure can be measured by analyzing the sources and uses of liquidity. In this approach, total net liquidity is worked out by deducting the total of uses of liquidity from the total of sources of liquidity. Similarly, BIS maturity laddering model can be used to measure the liquidity of a commercial banks. In addition, different liquidity exposure ratios such as borrowed funds to total assets, core deposit to total assets, loans to deposits, and commitments to lend to total assets are used to measure the liquidity position of a commercial bank (Saunders and Cornett, 2004). NRB uses total loan to total deposit ratio, cash and equivalents to total assets ratio, cash and equivalents to total deposit ratio, NRB balance to total deposit ratio to measure the liquidity position of commercial banks in the course of the performance evaluation of commercial banks (NRB, 2005).

2.1.1.6 Sensitivity to Market Risk

Commercial banks are increasingly involved in diversified operations such as lending and borrowing, transaction in foreign exchange, selling off assets pledged for securities and so on. All these are subject to market risk like interest rate risk, foreign exchange rate risk, and financial asset and commodity price risk. The health of an FI more sensitive to market risk is more hazardous than that of less sensitive. Foreign exchange risk, interest rate risk, equity price risk, and commodity price risk are the indicators of sensitivity to market risk.

2.1.2 Principles Theories of Banking

Basically, the principle theories are especially designed for the banking sectors but it seems not much difference between application of banking sector and finance sector. So, in this prospect conflicts between objective of liquidity, safety and profitability relating to banking sector can also be highlighted from given theories. Hence, economists have tried to resolve these conflicts by laying down certain theories from time to time. These principles or theories have also come to be known as the theories from liquidity management, which area discussed as under (Bhandari, 1999).

i. The real bills doctrine
ii. The shift ability theory
iii. The anticipated income theory
iv. The liability management theory

i.The Real Bills Doctrine

The real bills doctrine states that any financial company should advance only short-term self-liquidating productive loans to business firms. Self-liquidating loans are those, which are meant to finance the production, storage, transpiration and distribution. When such goods are ultimately sold, the loans are considered to liquidate themselves automatically such short-term self-liquidating productive loan passes via. three advantages. Firstly, they possess liquidity that is why, they liquidate themselves automatically. Secondly, since they mature in the short run and are for productive purpose, there is no risk of their running into bad debts. Thirdly, being productive such loans earn income for the bank.

ii. The Shift Ability Theory

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

As the name suggests the theory suggests that the bank's liquidity is maintained if it holds assets that could be shifted or sold to other lenders or investors for cash. In other words, the bank should be able to meet its liquidity as long as it can shift its liquidity needs to others by selling the assets it has (e.g. collateral from secured loans).

iii. The Anticipated Income Theory

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

iv. The Liability Management Theory

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

2.2 Review of Empirical Studies

The number of the financial analysis regarding the commercial banks as well as the financial performance of Nepal Rastra Bank has been found out in order to review this section. But due to the short span of its establishment very few researches have been made in the area of the liquidity management of bank in Nepalese context, and basically most of them have focused on financial analysis and financial performance of the commercial/joint venture banks as their relevant field:

2.2.1 Review of Article:

Jha (2005) analyzed on, Challenges and Opportunities, and concluded about the challenges and opportunities that the Nepali banking sector faces. Nepali banking sector is going through a rapid transformation. With liberalization in financial markets and integration of domestic

market with external markets, bank operations have become more complex and dynamic. The opportunities to enter new business and new markets and to deliver higher level of customer service are immense.

Four trends that alter the banking industry in future are consolidation and merger, globalization of operations, development of new technology and sustenance of traditional services. With the new capital adequacy norms coming through, it is expected that few banks have no choice but to merge. In order to have a sustainable growth in the bottom line, banks must increase their global market operations, especially in treasury products by being more innovative and selecting a pool of products which the global market is offering today to reward the calculated risk taken by the bank.

Shrestha (2004) highlighted on deposits and credits of commercial banks in Nepal. Shrestha concluded that the credit deposits ratio would be 51.3%, other things remaining same in the year 2004 A.D., which was the lowest under the period of review. So he has strongly recommended that the commercial banks should try to give more credit entering new field as far as possible otherwise they might not be able to absorb even its total expenses.

Pandey (2002) has carried out study with the objectives to find out the impact of changes in NRB directives on the performance of the commercial banks and to find out whether the directives were implemented or not. According to his findings, the directives if not properly addressed have potential to wreck the financial system of the country. The directives in themselves are not that important unless properly implemented part depends upon the commercial banks. In case commercial banks are making such huge profit with full compliance of NRB directives, then the commercial banks would deserve votes of praise because they would then be instrumental in the economic development of the country. All the changes in NRB directives made impacts on the bank and the result are the followings:

- Increase in operational procedures of the bank, which increase the operational cost of the bank.
- A short term decreases in profitability, which result to fever dividends to shareholders and less bonus to the employees.

- Reduction in the loan exposure of the bank, which decreases the interest income but increase the protection of the depositor's money.
- Increase protection to the money of the depositors through increased capital adequacy ratios and more stringent loan related documents.
- Increase demand from shareholder's contribution in the bank by foregoing dividends for loan loss provisions and various other reserves to increase core capital.

All the aforesaid result lead to one direction the bank will be financially healthy and stronger in the future. HBL will be able to withstand tougher economic situation in the future with adequate capital and provision for losses. The tough time through which the bank is undergoing at present will prevail only for a couple of years but in the long run, it will be strong enough to attract more deposits and expose itself to more risk with capital cushion behind it. The quality of the asset of the banks will become better as banks will be careful before creation credit. Ultimately, the changes in the directives will bring prosperity not only to the shareholders but also to the depositors and the employees and the economy of the country as a whole.

Pandey, has made the research on the impact on changes in new directives. In the study, has studied only the provision related to loan provision related to loan provisioning and capital adequacy. However, besides Loan Loss Provision and capital adequacy, the other factors like concentration risk, sector-wise lending risk can further be discussed. A study on the organizational structure or management techniques applied for the proper implementation of NRB directives and for management of credit risk can also be made.

Table: 2.1

Description of Empirical Studies from 2005 to 2002

Study	**Area**	**Major Findings**
Jha (2005)	Challenges and Opportunities of Nepalese Banking Sector	To have sustainable growth, banks must increase their global market operations, especially in treasury products by being more innovative and selecting a pool of products which the global

		market is offering to calculate the risk taken by the bank.
Shrestha (2004)	Deposits and credits of commercial banks in Nepal	Commercial banks should try to give more credit entering new fields as far as possible or they won't be able to absorb even its total expenses.
Pandey (2002)	Impact of changes in NRB directives on the performance of commercial banks	Increase in operational procedures of bank increases the operational cost of bank. Changes in the directives will bring prosperity not just to shareholders but also to depositors and employees and economy of the country as well

Rana (2001) alerts commercial banks of the directives issued by Nepal Rastra Bank. The article gives bird's eye view of major changes made in the new directives and suggests measures to be taken by commercial bank to comply the new directives.

The study has highlighted the following points in the article:

- Capital adequacy ratio for commercial bank prescribed by Nepal Rastra Bank is even higher than the requirement in India.
- Classification of loans and advances into four category instead of six categories prescribed earlier.
- The newly prescribed change in income recognition system will require most of the banks to either upgrade or change their banking software.
- Banks will find it very difficult to maintain records of all persons, who are included in the definition of family/ relative.

In order to comply with the new NRB directives, he has suggested following measures:
Upgrade/ change the banking software, which facilitates generating numerous reports required by Nepal Rastra Bank.

- Foresee capital adequacy position for a number of years ahead and initiate measures for increasing the capital if required.
- Review and revise overall credit policies to address new directives governing loan classification and loan loss provisioning.

- Strengthen banks' monitoring and follow-up department. Time has come to inculcate financial discipline to the customers. A number of interaction programs should be organized with credit customers so that NRB's new directives could be explained to them.

Update their record with Credit Information Bureau (CIB). Also Banks should timely submit required return to CIB for its effective functioning.B.M. Magazines, (2000) in one of its article evaluated how much bankable is the bank we are dealing. The study states that the strength and performance of any commercial bank can't be judged on the basis of single parameter. The parameters of strength could be the total equity employed, that total assets held, total deposits mobilized etc. whereas performance can be measured with operating profit ratio, deposits to advances ratio, growth in advance, deposits and operating profit etc. P/E ratio shows the confidence of the investors in the stock of a bank.

Madlin and Snock (1998) in their book, "Evaluation of Banking Supervision in NRB" express when government when government decided to establish banks with joint venture two benefits were expected; first that competition would force domestic banks such as NBL and RBB to improve their services and efficiency; second that introduction of new banking procedures, methods and technology would occur.

Table: 2.2

Description of Empirical Studies from 2001 to 1998

Study	**Area**	**Major Findings**
Rana (2001)	Alerts commercial banks of the directives issued of NRB	Foresee capital adequacy position for a number of years ahead and initiate measures for increasing the capital if required. The study also suggests on review and revise of overall credit policies to address new directives governing loan classification and loan loss provisioning.
B.M. Magazine (2000)	Evaluation on banks ability	Strength and performance of any commercial banks can't be judged on the basis of single parameter.

Morris (1990), in his discussion paper on Latin America's banking system in the 1980's has conclude that most of the banks concentrated on compliance with central bank rules on reserve requirements, credit allocation (investment decision) and interest rates. On the other hand, analyzing loan portfolio quality, operating efficiency and soundness of bank investment management, has largely been over hooked. He further adds that mismanagement in financial institutions has involved inadequate and over optimistic loan appraisal, high risk diversification of loan portfolio and investments, high risk concentration, related parties lending etc. are major cause of investment and loan that has gone bad.

Pradhan (1984), analyzed on financial liquidity assessment and discrimination analysis. The study has made an effort to show how a discriminate analysis may be useful in assessing the financial liquidity position of the selected public enterprises of Nepal. He even tried to arrange 10 public enterprises of Nepal. He even tried to arrange 10 public enterprises (5 from manufacturing sectors and 5 from non-manufacturing sectors) on the basis of their risk indicated by Z-scores. The objective of the article was, however, to evaluate and combine two explanatory variables in a manner that forces the selected groups to be as statistically distinct as possible.

Table: 2.3

Description of Empirical Studies from 1990 to 1984

Study	Area	Major Findings
Morris (1990)	Latin America's banking system in 1980's	Analyzing loan portfolio quality, operating efficiency and soundness of bank investment management, has largely been over hooked. Further, mismanagement in financial institutions has involved inadequate and over optimistic loan appraisal, high risk diversification of loan portfolio and investments etc.
Pradhan (1984)	Financial liquidity assessment and discriminant analysis	Evaluating and combining two explanatory variables in a manner that forces the selected groups to be as statistically distinct as possible.

2.2.2 Review of Nepalese Thesis:

Shrestha (2005) on "A study of non-performing loan & loan loss provision of Commercial Bank, A case study of NABIL, SCB and NBL" has made study about a part of credit risk associated with those banks. The main objectives of her study were:

- To find out the proportion of non-performing loan in the selected commercial banks.
- To find out the factors leading to accumulation of non-performing loan in commercial banks.
- To study and analyze the guidelines and provisions pertaining to loan classification and loan loss provisioning.
- To find out the relationship between loan and loan loss provision in the selected commercial banks.
- To study and the impact of loan loss provision on the profitability of the commercial banks.

The major finding in the study was that the NBL has the highest portion of the loan in total asset followed by NABIL and SCBNL. The study concludes that the SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NABIL and SCBNL. Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision.

Likewise, the NBL has the highest portion of Loss loan followed by NABIL and SCBL. This study is more concentrated on non-performing loans: however, there exist lots of areas in credit risk management where further research is called for. In context of credit risk, collateral risk, concentration risk, organization risk management system can be studied.

Bhattarai, (2004) in the study "Implementation of Directives Issued by Nepal Rastra Bank: A comparative study of Nepal SBI Bank Ltd and Nepal Bangladesh Bank Ltd", has made an attempt to analyze various aspects of NRB directives with respect to Capital Adequacy and Loan Classification and Provisioning. As per the study view the process of continual review and classification of loans and advances enables banks to monitor the quality of their loans

and advances enables banks to monitor the quality of their loan portfolios and to take remedial action to counter deterioration in the credit quality of their portfolios.

The study concluded that with the new provisions, the banks will have its provision amount increasing in coming years and subsequently profitability of the banks will also come down. However, the true picture of the quality of the asset will be painted in the coming years to come. The study recommends, "The banks should be very careful while analyzing the repayment source & capacity of its credit clients". With longer period of past due, the bank will end up increasing its provisions which will keep the bottom line low if the bank is not careful.

The major research gap found in the study is the study has limited study in Capital Adequacy and loan classification and provisioning. The research is mainly aimed to identify the NRB provision related to loan loss provision and Capital Adequacy Measures. There exists a gap to study the detail credit risk analysis of the banks.

More research can be made on the whole credit risk such as concentration risk, collateral risk, exposure risk, organization's credit risk management system etc. Similarly, capital adequacy can be also be studied as measures against the credit risk of commercial banks.

Table: 2.4

Description of Nepalese Thesis from 2005 to 2004

Study	Area	Major Findings
Shrestha (2005)	Non-performing loan loss provision of commercial bank.	Concentrated on non-performing loans; however, there exists lots of areas in credit risk management where further research is called for.
Bhattarai (2004)	Implementation of directives issued of NRB	With new provisions, the banks will have its provision amount increasing in coming years and subsequently profitability of the banks will come down.

Shakya (2004) has analyzed on, "Liquidity assessment of Nepal Bangladesh Bank Ltd.". the study is based on Nepal Bangladesh Bank's liquidity assessment. Its main objective is to analyze the liquidity assessment of NBB for the creation of better investment. The study has tried to focus on the major problems of NB Bank which is at crucial stage. Besides, the study has also raised relevant problems on mushrooming of the banks. Other problems, which the study has focused, are:

- High flow of money in the market but less viable and invest able project.
- Due to lack of study of liquidity and available investment sector, it is not able to attract as much clients as it cold have.
- Due to the political problems, this bank is also going via. Saturation.
- Beneficial investment strategy needs to be in operation.

The study concludes that NB bank was not able to maintain the conventional standard of 2:1. The cash and bank balance to total deposit ratio was not satisfactory as the average ratio was found to be only 17.80% which means that NB bank was not capable to keep more cash balance against its various deposit and thus, it defines that its liquidity position is not good in spite of its slight improvement in 2001/02. Loans and advances to total deposit ratio also showed the fluctuating trend. This study recommended that the concerned authorities should develop the sense of safety and security in the mind of investors. She even suggested the NB bank to promote their international banking network to increase their remittance and other banking business.

Shrestha (2003) in the study "Impact and Implementation of Nepal Rastra Bank (NRB)'s Guidelines (Directives) on commercial banks. A study of Nabil Bank Ltd. and Nepal SBI Bank Ltd." has tried to find out the following things:

- Impact of NRB directives on commercial banks.
- Whether the directives are actually implemented and are being monitored by NRB or not.

The study has stated that both NABIL and Nepal SBI are implementing the NRB directives. The study concludes that all the changes in NRB Directives made both positive and negative

impacts on the commercial banks. Even though this study is limited to only two samples (i.e. Nabil Bank and Nepal SBI Bank), among the entire population, it clears the new directives issued by NRB make good impact to more than bad impacts on the various aspect of the banks. It can be seen that the provision has been changed and the increased provisioning amount has decreased the profitability of commercial banks. Apart from, loan exposure has been cut down to customers due to the borrower limits have been brought down by NRB.

Therefore reductions in loan amount result to decrease the interest incomer from loans, which will decrease the profits of the banks in coming years. The decreasing profitability pushes towards lesser dividends to the shareholders and less bonus to employees. Not only are the negatives sides but also there are positive sides of new directives.

Recently the problems of banks are increasing operating cost and decreasing loan amount resulting decrease in profits of the banks but it shows it is only for short time there because the directives are more effective to protect the banks from bankruptcy as well as protection of deposits of depositors. Increase in capital adequacy ratio strengthen the banks financial position, loan related provision will made safety of loans except the risk reducing provision would protect the bank from liquidation. Above all it can be concluded that newly issued directives are more effective than previous one although investment in other business; bank should adopt new technology according to the demand of time and must not depend on only interest income for profit.

In this thesis as well, researcher has studied the impact of NRB directive, especially related to loan loss provisioning, on selected banks. There exists a gap regarding the study of management teams formed by the commercial banks to manage the credit risk besides those NRB directives. Similarly, commercial banks compliance in regard to those directives as well as banks to manage credit risks can be studied further.

Joshi (2002) in the thesis, “A comparative study on Financial Performance of Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.”, reveals that the liquidity position of NSBL exists in normal standard and NB is still trying to gain that position. However, NBB has

better turnover than NSBL, thus has got better utilization of resources in income generating activities than NSBL resulting into the increment of profit for the organization.

But despite of the fluctuating trend in the ratio of cash and bank balance to total deposit. NSBL is more efficient than NBB in cash management i.e. it is more able to keep more cash balance against its various deposits. However, the overall finding is that NBB seems to be more successful in mobilizing its customer's saving in much more productive sectors.

Table: 2.5

Description of Nepalese Dissertation from 2004 to 2002

Study	Area	Major Findings
Shakya (2004)	Liquidity assessment of NBB	High flow of money in the market but less viable and investible project.
Shrestha (2003)	Impact and implementation of NRB guidelines on commercial banks	If the directives are actually implemented and are being monitored by NRB or not. Another is the impact of NRB directives on commercial banks.
Joshi (2002)	Comparative study on financial performance of SBI bank	NBB seems to be more successful in mobilizing its customer's saving in much more productive sectors.

Acharya, (1998), conducted his study on, "An Evaluation of Financial Performance of Nepal Insurance Company Limited", for the fiscal year 1990/1991 to 1996/1997 has found the following facts about Nepal Insurance Company Limited during the research period.

- The company is not able to collect its outstanding premium efficiently.
- Liquidity management of NICL is in very weak position.
- The company's re-insurance premium is in increasing trend.
- The company's total assets are in increasing trend.
- Profitability position of the company is in satisfactory level.
- Control of management expenses and agency commission is in increasing trend.

Based on the findings of the study, the study suggests and gave the following recommendations,

- The company should improve the liquidity position and claims should be paid in time.
- The company should activate its agents and development officer.
- Company should maximize return through optimal portfolio management.
- Commission and management expenses should be controlled.
- Business portfolio should be diversified.

Sharma, (1996), in his research paper titled, "A study on Financial Performance Analysis of Rastriya Beema Sanstha P. Ltd. and National Life and General Insurance P. Ltd." has found various financial indicators of these companies from the analysis. The study found the following major issues.

- Absolute value of premium collection has been increasing but it is in decreasing trend in respect of GDP growth rate.
- Net premium to claim ration gradually decreasing, claim outstanding and premium outstanding are increasing year by year since the overall liquidity position is weakening.
- Most of the parts of investment portfolio are composed of bulk fired deposit account and HMG's securities.

Based on the issues, the study suggested recommendation to those companies; some of the main recommendations are as:

- They should increase their retention capacity.
- They should make an effective program to take larger market share.
- They should improve effective investment portfolio.
- They should accelerate the outstanding premium collection speed.

Bohara (1992) in the research paper titled, "A comparative study of the financial performance of Nepal Arab Bank Limited and Nepal Indosuez Bank Limited", concludes that to meet the

short term obligations both the banks had been maintained adequate liquidity and utilization of deposit was satisfactory. Both the banks have highly geared capital structure and the capital adequacy ratio of both banks has been maintained in excess then actually required. This study suggested increasing same status of capital structure to reduced financial risks

Table: 2.6

Description of Nepalese Dissertation from 1998 to 1992

Study	Area	Major Findings
Acharya (1998)	Evaluation of financial performance of Nepal Insurance Company	Improvement in liquidity position and claims to be paid in time. Company should maximize return through optimal management.
Sharma (1996)	Financial performance analysis of Rastriya Beema Sanstha	Improvement in retention capacity and accelerate the outstanding premium collection speed. Effective program to take larger market share and investment.
Bohara (1992)	Financial performance of Nepal Arab Bank Limited and Nepal Indosuez Bank	Increment in same status of capital structure reduces financial risks.

Joshi (1989) analyzed on the financial performance of commercial banks. The study analyzed different ratio of Nepal Bank Ltd. and Rastriya Banijya Bank for the period of five years till fiscal year 1988. The study concludes liquidity position of commercial banks is sound. Their debt equity ratio is high and debt on solvency to debt equity ratio is under doubt. Regarding debt solvency to debt equity ratio of local commercial banks is higher than joint venture banks. Conservative credit policy is followed by commercial banks for asset utilization. That is why more investment is done in loan and advances, assets utilization for earning purpose is two third of the total assets. The main sources of income for those banks are interest from loans and advances. Overall profit position of NABIL is better than that of other joint venture banks during the study period. Dividend layout ratios of commercial bank should be determined which should be kept in mind of the shareholder's expectations and their growth requirements of the banks.

Poudel, (1989), scrutinize on the liquidity and investment position of joint venture commercial banks in Nepal. The study is based on 2 joint venture commercial banks i.e. EBL and NABIL. The study has concluded that liquidity of EBL is comparatively better than NABIL. Growth rate of investment is high in EBL then NABIL. The study even found that the bank don't have constant and consistent liquidity and investment policy. There is no standard and uniform rate or ratio for maintaining liquid assets by the commercial banks. A commercial bank at its own judgment may decide to maintain an appropriate level of liquid assets. So the researcher has recommended exploring such investment on share and debenture and the bank should have laid down policy for timely review of portfolio and to maintain risk and return.

Table: 2.7

Description of Nepalese Dissertation from 1998 to 1992

Study	Area	Major Findings
Joshi (1989)	Financial performance of commercial banks	Conservative credit policy is followed by commercial banks for asset utilization. Hence more investment is done in loan and advances.
Poudel (1989)	Liquidity and investment position of joint venture commercial banks in Nepal	Commercial bank at its own judgment may decide to maintain an appropriate level of liquid assets. Exploring such investment on share and debentures and the bank can also lay down policy for timely review of portfolio and maintain risk and return.

2.3 Research Gap

From the review of various literatures, it has been found many research works have been done on the study of NRB Directives and its compliance and analysis of credit management through loan loss provision, non-performing loans and capital adequacy. However, very few thesis have been found on the efficacy of Commercial bank in the framework of CAMEL, which is the most important aspect of the banking sector in today's time.

Some other areas where the researcher can further research on are:

- The researcher can make further do some detailed research on capital adequacy, asset quality, management quality, earning performance and liquidity on their own satisfactory manner.
- In this study primary data is omitted, so further researchers can do primary analysis as well.
- Latter researchers can use some Econometric models as a base of their thesis.

Moreover, the researcher had attempted to fill this gap by measuring the efficacy of the three commercial banks NIBL, NABIL and HBL by studying their efficacy management system. This study also aims to find out the organizational structure of the sampled banks.

CHAPTER – III
RESEARCH METHODOLOGY

Research methodology depends upon the various aspects of the research project. The main objective of this phase is to present the necessary data and information regarding the performance of commercial banks, to evaluate and present them in a systematic way and to measure potential conditions with the reference of three banks i.e. NIBL, NABIL and HBL, as well as the basic objective and goal of this research work is be designed out here. The major contents of the research methodology followed in course of this study are as follows:

3.1 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance (Kerlinger, 1986). The research design is an integrated frame that guides the researcher in planning and executing the research work (Wolf and Pant, 2005). This study follows descriptive research design. Although descriptive research can not predict and control condition and events, it contributed to science primary by building a foundation of facts upon which exploratory hypotheses may be constructed, by checking the validity of existing theories and by directing attention toward alternative hypothesis which better fit the facts (Van Dalen, 1962).

For the research work, the analytical and descriptive research designs are applied. The major task of research design is to define the research problem. Hence for any research work, the analytical and descriptive research design plays a crucial role. It is thus a main part of any research work. Descriptive approaches have been adopted mainly for describing the situation and conduct a survey of opinions. Analytical approach has been followed to analyze the relationship among variables.

This study is closely related with the various cash flows analysis with respect to the banks; these information and data are presented in an analytical method. But the qualitative aspects of the research such as effectiveness of liquidity fluency of the mentioned banks have been

demonstrated. As well as problems of formulating and implementing the demands of cash flows of the banks have been evaluated under the different basis.

As the study focuses to the financial performance, the research design of this study is primarily related on CAMEL framework of banks in Nepal, with reference to NIBL, NABIL and HBL.

a. Population and Samples:

At present, Nepalese financial system comprises of 25 commercial banks which is the population of the study. It is not within the capacity of this study to include all the listed commercial banks for the analysis due to the absence and heterogeneity of available data. It means the study periods of the selected banks are not homogenous in nature. The sample sizes of the mentioned 25 commercial banks represent 3/25 or 0.12% of total population. Out of the various method of selecting a sample judgment, sampling was followed in order to choose NIBL, NABIL and HBL among the available commercial banks in Nepal. Moreover, the selecting of NIBL, NABIL and HBL is also based on advice of experts of relevant field, guide and due to the time constraint and easy access to the researcher (for sampling frame and sample refer to Appendix 1)

b. Period Covered

This study is based on the historical data disclosed by annual reports of commercial banks. NRB has dictated the commercial banks to disclose the financial information in the prescribed format since FY 2001/2002. So, the comparison of the financial performance of commercial banks with each other is only possible from FY 2001/2002 onwards.

NIBL, NABIL and HBL have been operating since a long period. More the period covered for analysis more we get the true figure. However due to constraints of time and resources only five year period data are used. Therefore, the analysis of the concerned commercial banks are done under yearly basis as according to the five yearly balance sheet and income statements indicated from 2004/2005 to 2008/2009.

3.2 Nature and Sources of Data

The main source for the fulfillment of this thesis is the secondary data, along with the necessary suggestion from various experts as well as the renowned teachers. The secondary data used ate the published documents of the banks, booklet, magazines, publication and the banks, articles, council of the ministry of finance, publication of national planning communication, centre bureau of statistics and similar previous dissertations and other publication.

The required data collected from various sources are as follows:

a. Annual report to shareholders to NIBL (Data downloaded from www.nibl.com.np the official website of NIBL).
b. Annual report to shareholders of NABIL (Data downloaded from www.nabilbank.com the official website of NABIL).
c. Annual report to shareholders of HBL (Data downloaded from www.himalayanbank.com the official website of HBL).
d. Financial statement of the selected banks (Data downloaded from www.nrb.org.np the official website of Nepal Rastra Bank).
e. Previous related research and dissertation.
f. Different books, magazines, newspaper, periodicals and journals.

So, the data used in this study is obviously the secondary data and historical in nature.

3.3 Research Methods

For the purpose of analysis of selected banks under study, financial statement, the profit and loss account and the balance sheet of the companied have been analyzed. Hence, the following financial tools have been used in this thesis.

a. Research Methods

The analysis of this study is entirely based on CAMELS framework. As stated in theoretical prescription, health check up of any FIs in this framework is concentrated in the six components: capital adequacy, asset quality, management quality, earning, liquidity and

sensitivity to market. But in this study, the last component has been dropped due to the presence of much more complication. So the analysis of financial health of the selected banks is carried out in the framework of CAMEL. Indicators of each component also have been used according to the financial data disclosed in annual reports of sampled banks. So, complicated indicators of each component of CAMEL framework of checking up health of the bank have been skipped up in this study.

b. Research Variables:

The research variables of the study are mainly related with the financial and statistical tools and techniques are available. Some well accepted and important tools and techniques have been used in this study. Tools and techniques used in this study are as follows:

3.4 Analysis of Financial and Statistical Tools

To evaluate the liquidity position of banks, various financial and statistical tools and techniques are available. Some well accepted and important tools and techniques have been used in this study. Tools and techniques used in this study are as follows:

3.4.1 Financial Tools Used

Financial tools are used to examine the financial strength and weakness of bank in this study. Tools and techniques used are described below:

1. **Capital Adequacy**

Financial tools are used to examine the financial strength, in particular its ability to cushion operational and abnormal losses. An FI should have adequate capital to support its risk assets in accordance with the risk-weighted capital ratio framework. It has become recognized that capital adequacy more appropriately relates to asset structure than to the volume of liabilities. This is exemplified by central banks' efforts internationally to unify the capital requirements of commercial banks and to generate worldwide classification formulae. Some of the measures to calculate the capital adequacy are mentioned below.

1.1 Core Capital Ratio (CCR)

This ratio reflects the relationship between the core capital and total risk weighted assets of the commercial banks. The ratio is calculated by dividing the figures of core capital by the figure of risk weighted assets as given below.

$$\boldsymbol{CCR} = \frac{CC}{RWA} X\ \mathbf{100\%}$$

Where,

CC = Core Capital

RWA = Risk Weighted Assets

1.2 Capital Adequacy Ratio (CAR)

This ratio will reflect the relationship between the total capital funds to the total risk weighted assets. The ratio is calculated by dividing the total capital fund by the total risk weighted assets as given below.

Where,

$$\boldsymbol{CAR} = \frac{TC}{RWA} X\ \mathbf{100\%}$$

Where,

TC = Total Capital (Core Capital Plus Supplementary Capital)

RWA = Risk Weighted Assets

2 Asset Quality

Asset quality has direct impact on the financial performance of an FI. The quality of assets particularly, loan assets and investments, would depend largely on the risk management system of the institution. The value of loan assets would depend on the realizable value of the collateral while investment assets would depend on the market value.

2.1 Non- Performing Assets Ratio (NPAR)

This ratio highlights the perfect circumstances of the commercial banks in overall non-performing loans. This ratio aware about the possibilities of rollover of the funds exposed to risk assets as calculated below.

$$NPAR = \frac{NPA}{TLA} X\ 100\%$$

Where,

NPA= Non- Performing Assets (Loan and Advance)

TLA= Total Loan and Advance

2.2 Loan Loss Reserve Ratio (LLRR)

This ratio measures the percentage of loan loss provision on loan and advances. Loan loss provision on credit is given to reduce risk of non- payment of released credit. As per the directives to bank and finance companies by NRB (2058 B.S.) 1% of good credit can be provisioned as loan loss provision to reduce risk that may arise due to no recovery of disbursed loan which is computed as below.

$$LLRR = \frac{LLR}{TLA} X100\%$$

Where,

LLR = Loan Loss Reserve

TLA = Total Loan and Advance

2.3 Loan Loss Coverage Ratio (LLCR)

This ratio measures the relation between the loan loss reserves to the non-performing assets which includes loan and advance. It is derived by dividing loan loss reserve by non-performing assets as given below:

$$LLCR = \frac{LLR}{NPA} X100\%$$

Where,

LLR = Loan Loss Reserve

NPA = Non-Performing Asset

3 Management Efficiency

The performance of the other four CAMEL components will depend on the vision, capability, agility, professionalism, integrity, and competence of the FI's management. As sound management is crucial for the success of any institution, management quality is generally accorded greater weighting in the assessment of the overall CAMEL composite rating.

3.1 Management Efficiency Ratio (MER)

The relationship between the net profits after tax with the number of the employees is the management efficiency ratio. This shows how efficient the management is. This is calculated by dividing the net profit after tax by number of employees.

$$\boldsymbol{MER} = \frac{NPAT}{NOE}\boldsymbol{X100\%}$$

Where,

NPAT = Total Net Profit after Tax

NOE = Number of Employees

4 Earning Performance

The quality and trend of earnings of an institution depend largely on how well the management manages the assets and liabilities of the institution. An FI must earn reasonable profit to support asset growth, build up adequate reserves and enhance shareholders' value. Good earnings performance would inspire the confidence of depositors, investors, creditors, and the public at large.

4.1 Return on Equity (ROE)

This ratio will reflect the relationship between net profits after tax to the shareholders' equity. The ratio is calculated by dividing net profit after tax by the shareholders' equity as given below.

$$\boldsymbol{ROE} = \frac{NPAT}{SHF}\boldsymbol{X100\%}$$

Where,

NPAT = Net Profit after Tax

SHF = Total Shareholders' Fund

4.2 Return on Assets (ROA)

This ratio is very much crucial for measuring the profitability of funds invested in the bank's assets. Here, we compute the relationship between the net profit after tax and assets with the help of the following formula.

$$\boldsymbol{ROA} = \frac{NPAT}{TA}\boldsymbol{X100\%}$$

Where,

NPAT = Net Profit after Tax

TA = Total Assets

4.3 Earning per Share (EPS)

This ratio tells us what profit has been earned by the common shareholder for ever share hold. A company can decide whether to increase or reduce the number of shares on issue. This is determined by dividing net profit after tax by number of shares.

$$\text{EPS} = \frac{\text{NPAT}}{\text{NOS}}\text{X100\%}$$

Where,

NPAT = Net Profit after Tax

NOS = Total no. of Shares

5. Liquidity Position

An FI must always be liquid to meet depositors' and creditors' demand to maintain public confidence. There needs to be an effective asset and liability management system to minimize maturity mismatches between assets and liabilities and to optimize returns. As liquidity has inverse relationship with profitability, an FI must strike a balance between liquidity and profitability.

5.1Cash and Bank Balance Ratio (CBR)

This ratio shows the relationship between the cash and bank balance to the total deposit. The total deposit also comprises of local currency. This is calculated by dividing the cash and bank balance with total deposit.

$$\boldsymbol{CBR} = \frac{C\&B}{TD}\boldsymbol{X100\%}$$

Where,

C and B = Cash and Bank Balance

TD = Total Deposit

5.2 Investment in Government Securities Ratio (IGSR)

This ratio calculates the relation of investment in government securities with the total deposit. This shows the bank's investment in government securities with its total deposit. This can be derived investment in government securities by total deposit.

$$\boldsymbol{IGSR} = \frac{IGS}{TD}X\boldsymbol{100\%}$$

Where,

IGS = Investment in Government Securities

TD = Total Deposit

3.4.2 Statistical Tools Used

Statistical tools are used to draw the relationship between different variables related to the study topic. Although various statistical tools are available to analyze the obtained data, the researcher has selected the most suitable and commonly usable tools to drag trustworthy various numerical.

1. Mean or Average

Arithmetic mean of a given set of observations is their sum divided by the number of observations. In general, if $X_1, X_2 \ldots\ldots, X_n$ are the given n observations, then their arithmetic mean, usually denoted by $\bar{X}$ is given by

$$\bar{X} = \frac{X_1 + X_2 + \cdots\ldots\ldots\ldots X_n}{n} = \frac{\sum X}{n}$$

Where,

n = Number of Observations

$\bar{X}$ = Arithmetic Mean

$X_1 = First$ Observations

X_2 = Second observations

The arithmetic mean is a single value of selected series, which represents them in average. Out of the various central tendencies, arithmetic mean is one of the haven data furthermore; it is very useful with respect of statistical analysis and is easy to calculate.

2. Standard Deviation

Standard deviation is the most important and widely used measure of studying dispersion and gives uniform, correct and stable results. In other words, the measurement of the scatterings of the mass figures is a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. A small value of standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series and

vice versa. Amongst all methods of finding out dispersion, standard deviation is regarded as the best.

A standard deviation is the positive square root of the average sum of square of deviations of observations from the arithmetic mean of the distribution. The standard deviation for individual series is represented as

$$\sigma = \sqrt{\frac{\sum(X - \overline{X})^2}{n}}$$

Where,

$\overline{X}$ = Arithmetic Mean

X = Individual Observation

n = Number of Observations

3. Coefficient of Variation

The co-efficient of variance is the relative measure of dispersion, comparable across distribution, which is defined as the ratio, of the standard deviation the mean express in percent. (Rechard and Rubin, 1994).

This is pure number independent of the units of measurement and thus, is suitable for comparing the variability, homogeneity or uniformity of two or more distributions. A distribution with smaller C.V. is said to be more homogeneous or uniform or less variable then other and the series with greater C.V. is said to be more heterogeneous or more variable then the other. (Gupta, 1999).

The coefficient of variation is given by:

$$\text{C.V.} = \frac{\sigma}{\bar{X}} X100\%$$

Where,

$\bar{X}$ = Arithmetic Mean

σ = Standard Deviation

3.5 Limitations of the study

This data is based on secondary data only. It is apparent that the secondary data are crucial for the study. The data problem is acute in Nepal. Even the financial statements of Nepalese enterprises published by them are not readily available, since they are treated as confidential. Data published differ to some extend which mars the accuracy and reliability of the data. The main objective of this study is to fulfill the partial requirement of MBS course of Tribhuwan University, Nepal. So, the study cannot cover all the dimensions of the subject and cannot penetrate the extreme depth also. The study therefore implies that the conclusions drawn of tentative nature.

Some more limitations are listed as follows:

i. Report covers a period of five fiscal years data due to the time constraint.
ii. The survey doesn't include branch wise data as it couldn't be collected.
iii. Accuracy of the report depends on the data provided by the bank.
iv. Lack of access of specialized software and tailored financial software makes study tedious and lengthy.
v. The constraint of various references and resources with computer programs are other main limitations.
vi. The merits and demerits of various statistical and financial tools employed also cannot be ignored in this study.
vii. As a research student the study is made unbiased, but resource and time period is limited.
viii. The study is based on annual data only. If monthly or quarterly data is available then the result might have been far better and reliable than what is expected from this analysis.
ix. Data on some variables are not available so adjustments have to be made for analysis.

CHAPTER – IV
DATA PRESENTATION AND ANALYSIS

To achieve the objective set in chapter one, data are presented and analyzed in this chapter. On the whole, this chapter is related to quantity analysis of various ratios as well as some quality-oriented analysis has also been done to make the results more realistic and complete to the possible extend.

Quantity analysis aims to classify the features, count them and construct statistical models in an attempt to explain what is observed. Further it is the objective study which includes measurement and analysis of target concept e.g. surveys, questionnaire etc, it is more efficient and remains objectively separated from the subject matter. Further, quality anlaysis is a complete detailed description where the researcher knows in advance about what he/she is looking for. Data used are in the form of words, pictures or objects. It is subjective by nature where interpretation is done by using participation/ observation, in depth interview etc.

As stated in chapter three, all indicators of the financial health of FIs have not been worked out and analyzed; only the indicators permitted by the publicly available comparable financial data have been used to analyze the financial health of the sampled banks.

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

On regarding mathematical presentation part this chapter presents the various ratios that affect performance of the concerned banks in the framework of CAMEL.
where,

C = Capital adequacy
A = Asset quality
M = **M**anagement efficiency
E = Earning performance and
L = Liquidity position.

These analytical tools can be used to compare the performance of the banks over a period of time. The above mentioned ratios are the sub-indicators of the financial position of a company that compare with the help of statistical tool viz. mean, standard deviation, co-efficient of variation and regression analysis.

Hence, if any commercial banks have good performance in terms of these latest frameworks, it will be able to provide the return in form of benefit to every party. In order to find out the strength and weakness of the commercial banks in terms of their financial performance, various ratios and variable have been calculated which are presented as follows.

4.1 Financial Tools Used

Financial tools are used to examine the financial strength and weakness of bank in this study. Tools and techniques used are described below:

4.1.1 Ratio Analysis

Ratio analysis is the expression of relationship between the mutuality independent figures. It is a very much powerful and widely used tool for the financial analysis. Here, it is used for evaluating financial position and performance of the films in the framework of CAMEL.

The following ratios are computed in the framework of CAMEL to evaluate the performance of the selected commercial banks of Nepal.

1. Capital Adequacy (C)

The first component, capital adequacy ultimately determines how well bank can deal with uncertainties. This ratio protects depositors and promotes the stability and efficiencies of commercial banks. Capital adequacy ratios take into account the most important financial

risks—foreign exchange, credit, and interest rate risks—by assigning risk weightings to the institution's assets.

For the purpose of capital adequacy measurement, bank capital is divided into core capital and supplementary capital. Core capital is that capital which is permanent in nature. It includes paid-up capital, share premium, non-redeemable preference share, general reserve fund, accumulated profit, capital redemption reserve, capital adjustment fund, and other free reserve. Amount of the goodwill, factitious assets, investment in the financial instruments in excess to the limit specified by NRB, and investment in the financial instruments issued by the organizations having the own financial interest is deducted from the sum of all elements of the primary capital to arrive at the core capital.

Supplementary capital is defined as that capital which is temporary in nature. It comprises of general loan loss provision, assets revaluation reserve, hybrid capital instruments, subordinated term loan, exchange equalization reserve, excess loan loss provision, and investment adjustment reserve and provision for loss on investments. Thus, the total capital of commercial banks is the sum of core capital and supplementary capital.

According to NRB, core capital must be equal to or exceed 5.5 percent of the risk weighted assets of the commercial banks. Similarly, the amount of the supplementary capital should not exceed the amount of the supplementary capital should not exceed the amount of the core capital and the total capital must equal or exceed 11 percent of risk-weighted assets.

For our analysis purpose we have used Capital Adequacy Ratio (CAR) and Core Capital Ratio.

1.1 Core Capital Ratio (CCR)

This ratio reflects the relationship between the core capital and total risk weighted assets of the commercial banks. The ratio is calculated by dividing the figures of core capital by the figures of risk weighted assets.

The core capital ratio of the three sampled banks are given in table no. 4.1

Table No. 4.1

Comparative Core Capital Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	8.52	-	11.35	-	8.33	-
2005-2006	7.97	0.94	10.78	0.95	8.65	1.04
2006-2007	7.9	0.93	10.4	0.92	9.61	1.15
2007-2008	7.71	0.90	8.75	0.77	9.36	1.12
2008-2009	8.56	1.01	8.74	0.77	8.81	1.06
Average	**8.13**		**10.01**		**8.95**	
σ	**0.34**		**1.07**		**0.47**	
C.V.	**4.18**		**10.69**		**5.25**	

(Source: See appendix no. 3 and 8)

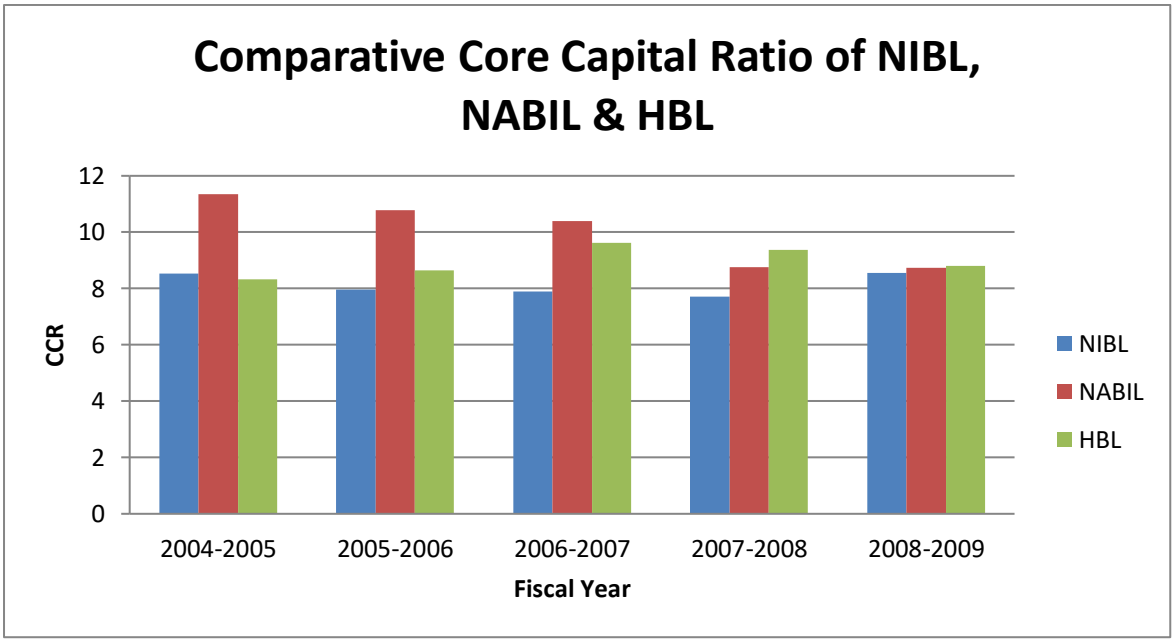
In Table no. 4.1, we perceive that the ratio of NIBL is 8.52 in the fiscal year 2004/2005 and 7.97 in the fiscal year 2005/2006 with the average of 8.13. This explains that the percentage change in the year 2005/2006 is 0.94%. It further decreases to 7.9 and 7.71 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.93% and 0.90%. In the final year, the ratio increases to 8.56
showing the change of 1.01%.

NABIL Bank has the ratio of 11.35 in the fiscal year 2004/2005 and 10.78 in the fiscal year 2005/2006 with the average of 10.01. This explains that the percentage change in the year 2005/2006 is 0.95%. It further decreases to 10.4 and 8.75 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.92% and 0.77%. In the final year, the ratio still decreases to 8.74 showing the change of 0.77%.

HBL has the ratio of 8.33 in the fiscal year 2004/2005 and 8.65 in the fiscal year 2005/2006 with the average of 8.95. This explains that the percentage change in the year 2005/2006 is 1.04%. It increases to 9.61 and decreases to 9.336 in the fiscal year 2006/2007 and 2007/2008

which shows the percentage change of 1.15% and 1.12%. In the final year, the ratio decreases to 8.81showing the change of 1.06%.

Figure No. 4.1



1.3 Capital Adequacy Ratio (CAR)

This ratio will reflect the relationship between the total capital funds to the total risk weighted assets. This ratio is calculated by dividing the total capital fund by the total risk weighted assets.

The capital adequacy ratio of the three sampled banks are given in table no. 4.2

Table No. 4.2

Comparative Capital Adequacy Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	11.58	-	12.44	-	11.01	-
2005-2006	11.97	1.03	12.31	0.86	11.26	1.02
2006-2007	12.17	1.05	12.04	0.97	12.11	1.10
2007-2008	11.28	0.98	12.00	0.96	12.42	1.13

2008-2009	11.24	0.97	10.70	0.86	11.02	1.00
Average	**58.24**		**11.90**		**11.56**	
σ	**11.65**		**0.62**		**0.59**	
C.V.	**0.37**		**5.21**		**5.10**	

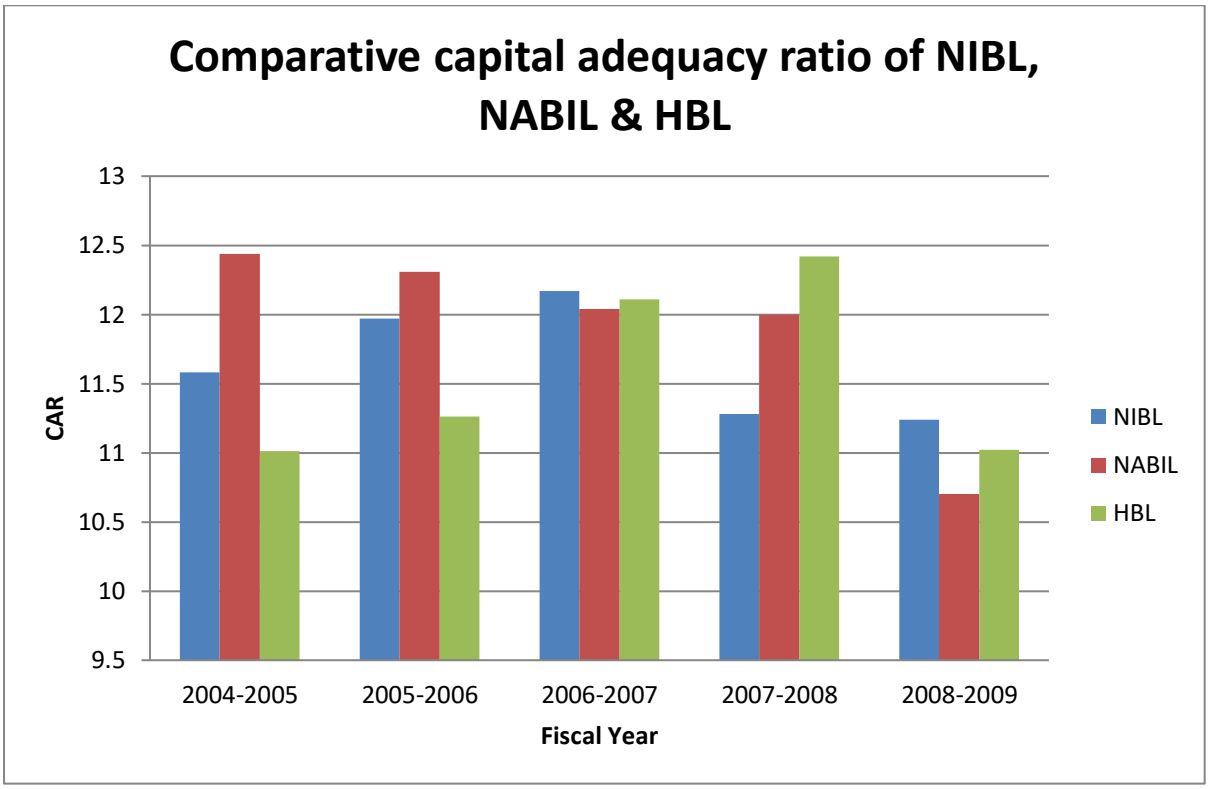
(Source: See appendix no. 3 and 9)

In table no. 4.2 NIBL has the ratio of 11.58 in the fiscal year 2004/2005 and 11.97 in the fiscal year 2005/2006 with the average of 58.24. This explains that the percentage change in the year 2005/2006 is 1.03%. It increases to 12.17 and decreases to 11.28 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.05% and 0.98%. In the final year, the ratio decreases to 11.24 showing the change of 0.97%.

NABIL has the ratio of 12.44 in the fiscal year 2004/2005 and 12.31 in the fiscal year 2005/2006 with the average of 11.90. This explains that the percentage change in the year 2005/2006 is 0.86%. It decreases to 12.04 and 12.00 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.97 and 0.98 respectively. In the final year, the ratio decreases to 10.70 showing the change of 0.86%.

HBL has the ratio of 11.01 in the fiscal year 2004/2005 and 11.26 in the fiscal year 2005/2006 with the average of 11.56. This explains that the percentage change in the year 2005/2006 is 1.02%. It increases to 12.11 and 12.42 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.10 and 1.13 respectively. In the final year, the ratio decreases to 11.02 showing the change of 1.00%.

Figure No.4. 2



According to NRB, all the commercial banks have to maintain 11% of CAR and 5.5% of CCR. If the CAR and CCR is higher than NRB minimum percentage then it is considered as that the interest of depositors is safe. But in concern to shareholders, the excess of CAR means less earning per share. During the process of maintaining the CAR, the fund should be mobilized in such a way that, the bank gets return from it.

Table no. 4.2 observes that all the banks under the study have maintained CAR in all five years as per the NRB standard except NABIL in 2008/2009. In fact, NABIL has the highest CAR too in the year.

From table no. 4.2 and figure no. 4.2, we can say that the depositors and creditors of the fund three banks are in safer position as higher CAR indicates higher amount of capital fund from the promoter side. It indicates better solvency position and lending capacity of bank. Highest CAR Indicates under utilization of capital.

2. Asset Quality (A)

It is obvious from the theoretical prescription that the efficacy of commercial banks largely depends on the quality of assets held by them, and quality of the assets relies on the financial health of their borrowers. Many indicators can be used to measure the quality of assets held by commercial banks. Here, non- performing loan ratio, loan loss coverage ratio and loan provision are used to measure the quality of assets being held by banks.

2.1 Non-Performing Assets Ratio (NPAR)

This ratio highlights the perfect circumstances of the commercial banks in overall non-performing loans. This ratio aware about the possibilities of the rollover of the funds exposed to risk assets. The non-performing assets ratio of the three sampled banks is given in table no. 4.3.

Table No. 4.3

Comparative Non-Performing Assets Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	2.75	-	1.35	-	7.59	-
2005-2006	2.11	0.77	1.38	1.02	6.69	0.88
2006-2007	2.22	0.81	1.13	0.84	3.63	0.48
2007-2008	2.53	0.92	0.77	0.57	2.36	0.32
2008-2009	2.45	0.89	1.15	0.85	2.16	0.28
Average	**2.41**		**1.16**		**4.49**	
σ	**0.79**		**0.49**		**2.24**	
C.V.	**32.78**		**42.24**		**49.89**	

(Source: See appendix no. 4 and 10)

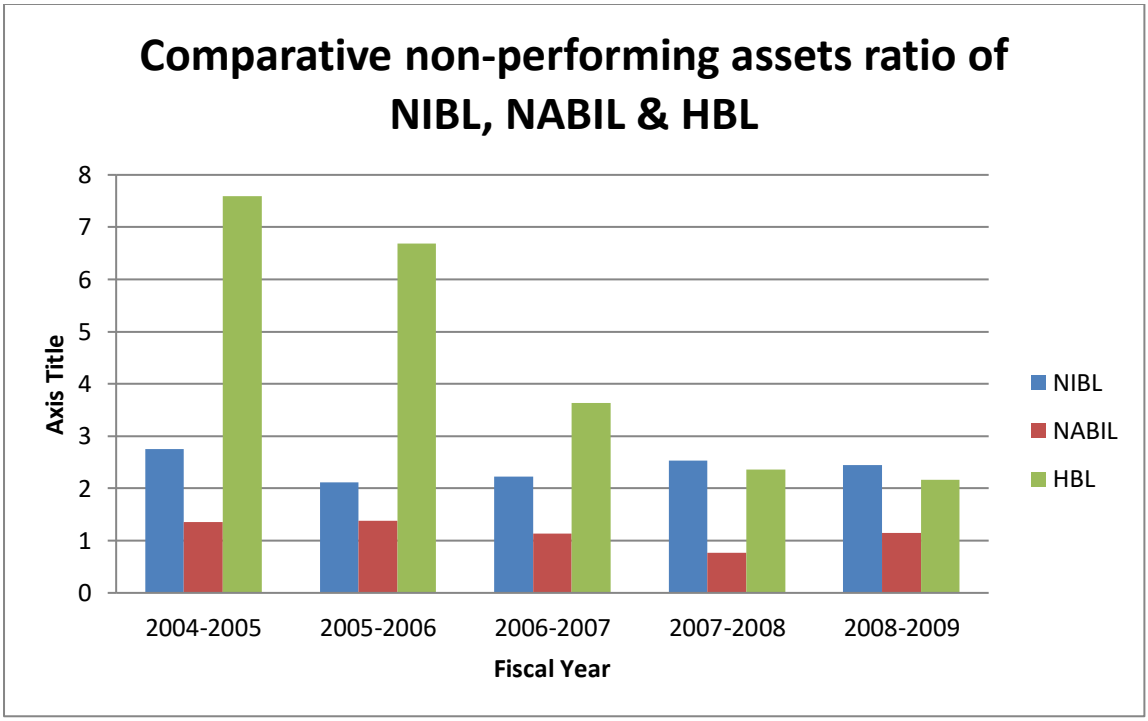
NIBL has the ratio of 2.75 in the fiscal year 2004/2005 and 2.11 in the fiscal year 2005/2006 with the average of 2.41. This explains that the percentage change in the year 2005/2006 is 0.77%. It increases to 2.22 and 2.53 in the fiscal year 2006/2007 and 2007/2008 which shows

the percentage change of 0.81% and 0.92% respectively. In the final year, the ratio decreases to 2.45 showing the change of 0.89%.

NABIL has the ratio of 1.35 in the fiscal year 2004/2005 and 1.38 in the fiscal year 2005/2006 with the average of 1.16. This explains that the percentage change in the year 2005/2006 is 1.02%. It decreases to 1.13 and 0.77 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.84% and 0.57% respectively. In the final year, the ratio increases to 1.15 showing the change of 0.85%.

HBL has the ratio of 7.59 in the fiscal year 2004/2005 and 6.69 in the fiscal year 2005/2006 with the average of 4.49. This explains that the percentage change in the year 2005/2006 is 0.88%. It decreases to 3.63 and 2.36 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.48% and 0.32% respectively. In the final year, the ratio decreases to 2.16 showing the change of 0.28%.The table no. 4.3 states that the policy used by NABIL is more effective than the other sampled banks and the policy used by HBL is very weak than the two banks.

Figure No. 4.3



2.2 Loan Loss Reserve Ratio (LLRR)

This ratio measures the percentage of loan loss provision on loan and advances. Loan loss provision on credit is given to reduce risk of non-payment of released credit. As per the directives to bank and finance companies by NRB (2058 B.S.) 1% of good credit can be provisioned as loan loss provision to reduce risk that may arise due to no recovery of disbursed loan.

Table No. 4.4

Comparative Loan Loss Reserve Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	3.18	-	3.35	-	7.76	-
2005-2006	3.09	0.97	2.70	0.81	7.18	0.93
2006-2007	2.70	0.85	2.26	0.67	4.50	0.58
2007-2008	2.15	0.68	2.22	0.66	5.68	0.73
2008-2009	2.01	0.63	2.65	0.79	7.03	0.91
Average	**2.63**		**2.64**		**6.43**	
σ	**0.48**		**0.42**		**1.13**	
C.V.	**18.25**		**15.91**		**0.18**	

(Source: See appendix no. 4 and 11)

Table no. 4.4 states that NIBL has the ratio of 3.18 in the fiscal year 2004/2005 and 3.09 in the fiscal year 2005/2006 with the average of 2.63. This explains that the percentage change in the year 2005/2006 is 0.97%. It decreases to 2.70 and 2.15 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.85% and 0.32% respectively. In the final year, the ratio decreases to 2.01 showing the change of 0.63%.

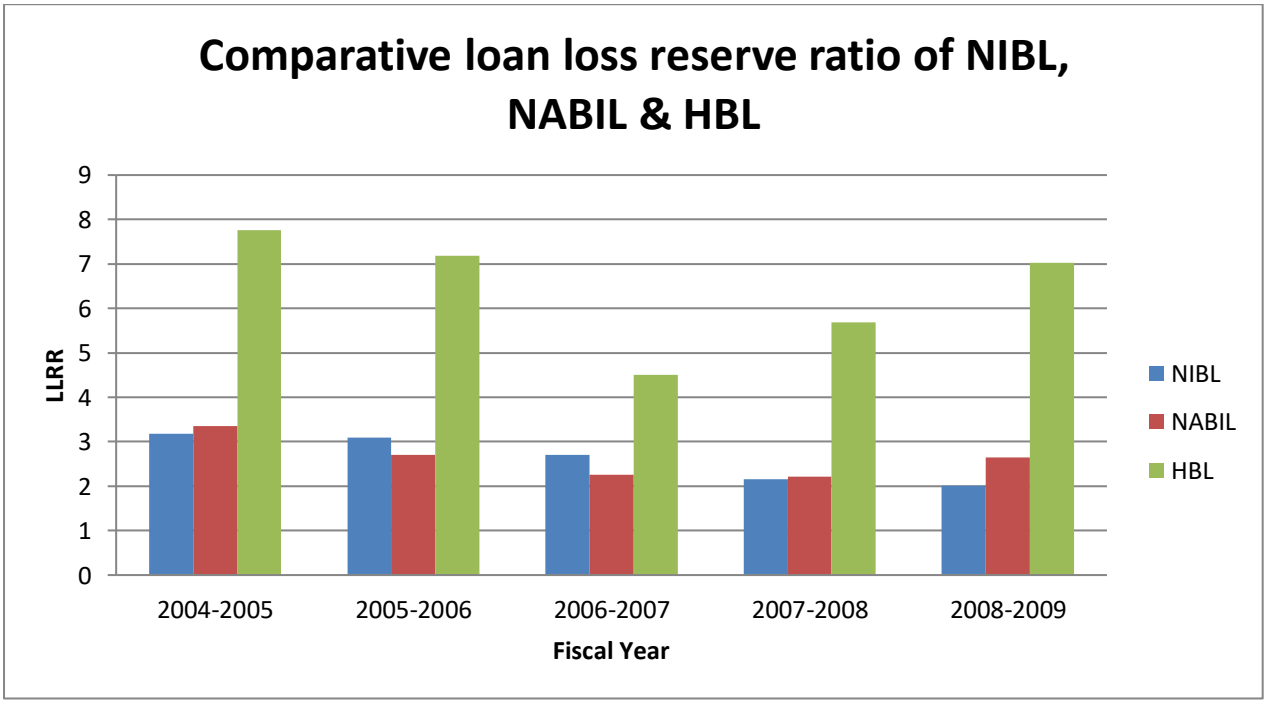
NABIL has the ratio of 3.35 in the fiscal year 2004/2005 and 2.70 in the fiscal year 2005/2006 with the average of 2.34. This explains that the percentage change in the year 2005/2006 is 0.81%. It decreases to 2.23 and 2.22 in the fiscal year 2006/2007 and 2007/2008

which shows the percentage change of 0.67% and 0.66% respectively. In the final year, the ratio increases to 2.65 showing the change of 0.79%.

HBL has the ratio of 7.76 in the fiscal year 2004/2005 and 7.18 in the fiscal year 2005/2006 with the average of 6.43. This explains that the percentage change in the year 2005/2006 is 0.93%. It decreases to 4.50 and increases to 5.68 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.58% and 0.73% respectively. In the final year, the ratio increases to 7.03 showing the change of 0.28%.

Higher the provision ratio represents the progress of the bank, because the bank is in safe side whereas depositor did not get enough advantage through the provision. Loan loss provision (LLPR) is made in order to be in safe position, if the issued loans become bad debts or to cover the loss from due. LLRR is calculated one in relation with NPL and another in relation with total loan. This ratio depicts how much provision a bank has to create for its loan out of the total loan provided. The lower the rate, the better is the financial position. Hence, the table shows that NIBL has maintained the lower rate, which shows the better financial position among others.

Figure No. 4.4



2.4 Loan Loss Coverage Ratio

This ratio measures the relation between the loan loss reserves to the loan loss reserves to the non-performing assets which includes loan and advance. It is derived by dividing loan loss reserve by non-performing assets.

Table No. 4.5

Comparative Loan Loss Coverage Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	115.17	-	248.72	-	102.20	-
2005-2006	146.50	1.27	195.12	0.78	107.34	1.05
2006-2007	121.64	1.06	199.72	0.80	123.83	1.21
2007-2008	135.99	1.18	215.86	0.87	130.21	1.27
2008-2009	125.93	1.09	219.56	0.88	135.63	1.33
Average	**129.05**		**215.80**		**119.84**	
σ	**11.05**		**18.89**		**12.98**	
C.V.	**8.56**		**8.75**		**10.83**	

(Source: See appendix no. 4 and 12)

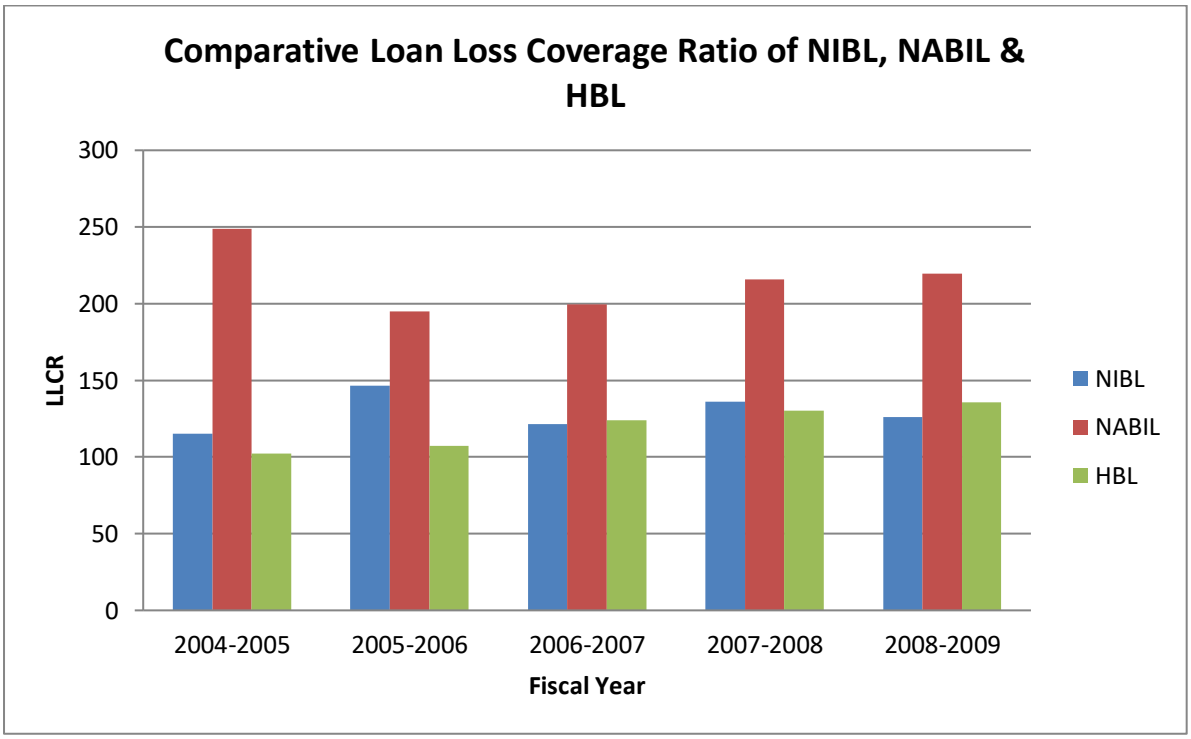
NIBL has the ratio of 115.17 in the fiscal year 2004/2005 and 146.5 in the fiscal year 2005/2006 with the average of 129.05. This explains that the percentage change in the year 2005/2006 is 1.27%. It decreases to 121.64 and increases to 135.99 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.06% and 1.18% respectively. In the final year, the ratio decreases to 125.93 showing the change of 1.09%.

NABIL has the ratio of 248.72 in the fiscal year 2004/2005 and 195.12 in the fiscal year 2005/2006 with the average of 215.80. This explains that the percentage change in the year

2005/2006 is 0.78%. It increases to 199.72 and again increases to 215.86 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.80% and 0.87% respectively. In the final year, the ratio increases to 219.56 showing the change of 0.88%.

HBL has the ratio of 102.20 in the fiscal year 2004/2005 and 107.34 in the fiscal year 2005/2006 with the average of 119.84. This explains that the percentage change in the year 2005/2006 is 1.05%. It increases to 107.34 and again increases to 123.83 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.21% and 1.27% respectively. In the final year, the ratio increases to 135.63 showing the change of 1.33%.

Figure No. 4.5



3. Management Efficiency (M)

Management is the process of planning, organizing, recruiting, coordinating, staffing, leading and controlling the resources of an organization in an efficient and effective way to attain the goal. The success and failure of any bank largely depends on effective implementation of management tactics, tools and practices. A good management of bank particularly refers to its

proper layout, product and services, customer satisfaction, staff motivation; focus on corporate governance and above all achievement of its goal.

Good capital adequacy, asset quality, earnings and liquidity can also e considered as the outcome of better management. We know that public sector banks in Nepal are constantly sustaining the loss while the private sector banks are earning high profit it is due to sustaining the loss while the private sector banks are earning high profit it is due to management weakness. So management plays a crucial role in success of banking sectors.

Sound management is a key to bank performance but is difficult to measure due to qualitative factor applicable to individual institutions. Several indicators can jointly serve as an indicator of management soundness. Management Efficiency Ratios are used as a proxy of the management quality. However we have only used earning per employee (EPE) to indicate the quality of management. Management Efficiency Ratio is calculated by using the following formula.

3.1 Management Efficiency Ratio (MER)

The relationship between the net profits after tax with the number of the employees is the management efficiency ratio. This shows how efficient the management is.

Table No. 4.6

Comparative Management Efficiency Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	65.76	-	122.07	-	61.53	-
2005-2006	89.88	1.37	143.99	1.18	81.54	1.33
2006-2007	97.55	1.48	157.85	1.29	84.22	1.37
2007-2008	112.33	1.71	162.79	1.33	87.23	1.42
2008-2009	126.12	1.92	170.85	1.40	89.98	1.45
Average	**98.33**		**151.51**		**80.90**	

σ	**20.50**		**17.12**		**10.09**	
C.V.	**20.85**		**11.30**		**12.47**	

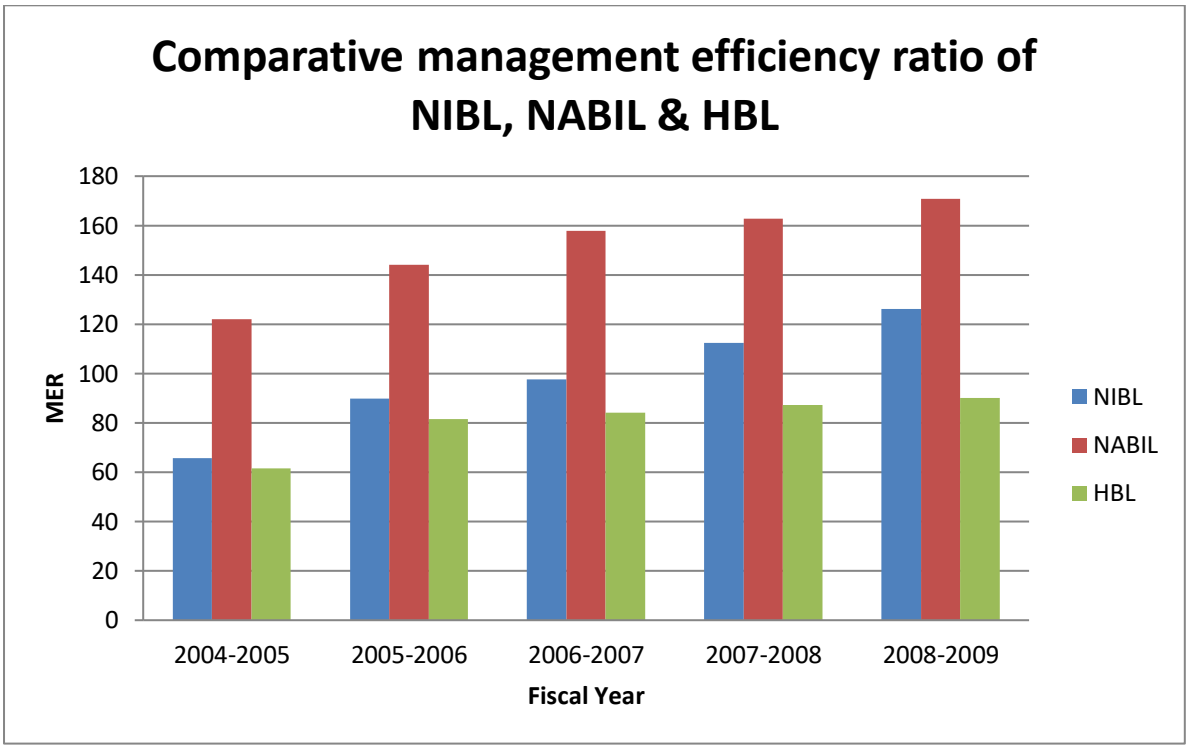
(Source: See appendix no. 5 and 13)

NIBL has the ratio of 65.76 in the fiscal year 2004/2005 and 89.88 in the fiscal year 2005/2006 with the average of 98.33. This explains that the percentage change in the year 2005/2006 is 98.33%. It increases to 97.55 and again increases to 112.33 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.48% and 1.71% respectively. In the final year, the ratio increases to 126.12 showing the change of 1.92%.

NABIL has the ratio of 122.07 in the fiscal year 2004/2005 and 143.99 in the fiscal year 2005/2006 with the average of 98.33. This explains that the percentage change in the year 2005/2006 is 1.37%. It increases to 157.85 and again increases to 162.79 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.29% and 1.33% respectively. In the final year, the ratio increases to 170.85 showing the change of 1.40%.

HBL has the ratio of 61.53 in the fiscal year 2004/2005 and 81.54 in the fiscal year 2005/2006 with the average of 80.9. This explains that the percentage change in the year 2005/2006 is 1.33%. It increases to 84.22 and again increases to 87.23 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.37% and1.42 % respectively. In the final year, the ratio increases to 89.98 showing the change of 1.46%.

Figure No. 4.6



3.Earning Performance (E)

Earning is the profit that the bank earns. It can be defined as profit made by bank from different kind of transactions. The different kinds of transaction can be such as lending of deposits, trade finance, remittance and other various services etc. So we can say that earning reflect aggregate performance of the bank. Earning capacity or profitability keeps up the sound health of a bank. Unusually high profitability can reflect excessive risk taking of a bank.

There are different indicators of profitability for analyzing.

4.1 Return on Equity (ROE)

This ratio reflects the relationship between net profit after tax to the shareholders' equity. The ratio is calculated by dividing net profit after tax by the shareholders' equity.

Table No. 4.7

Comparative Return on Equity of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	19.67	-	31.37	-	12.00	-
2005-2006	24.77	1.26	33.87	1.08	15.85	1.32
2006-2007	26.70	1.36	32.77	1.04	16.72	1.40
2007-2008	25.93	1.32	36.30	1.16	18.39	1.53
2008-2009	23.05	1.17	42.30	1.35	20.33	1.69
Average	**24.02**		**35.32**		**16.66**	
σ	**2.5**		**3.84**		**2.79**	
C.V.	**10.41**		**10.87**		**16.75**	

(Source: See appendix no. 6 and 15)

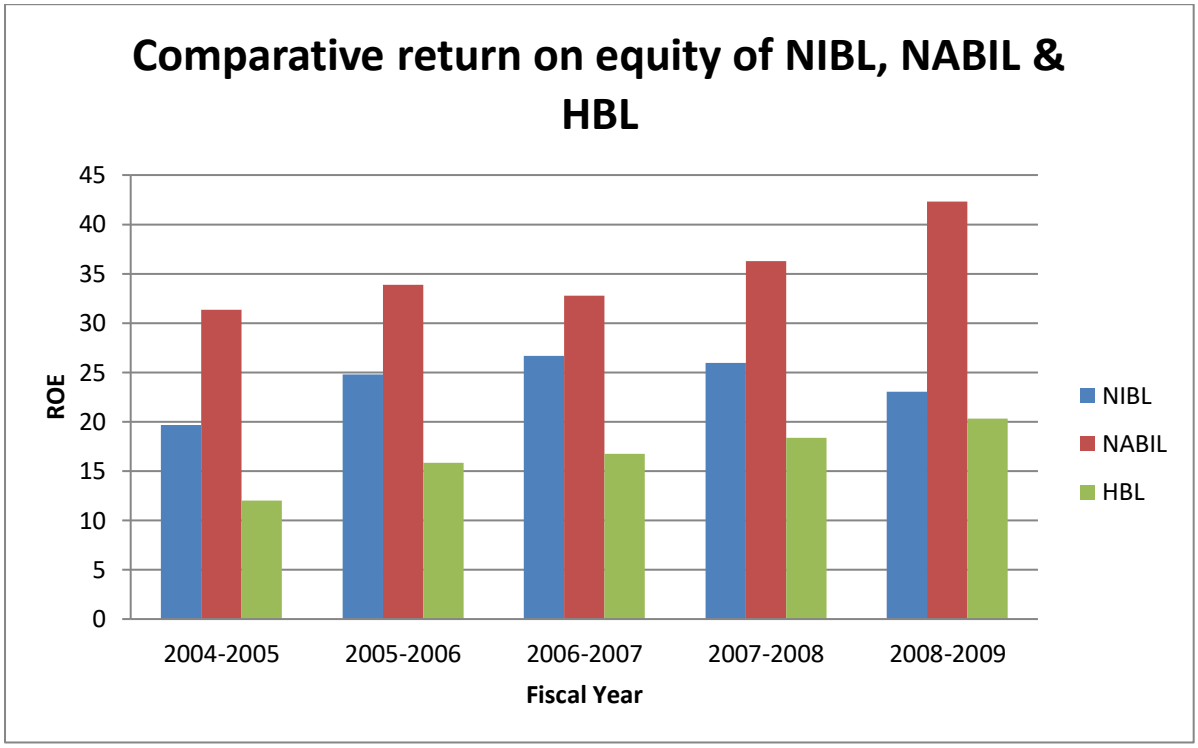
NIBL has the ratio of 19.67 in the fiscal year 2004/2005 and 24.77 in the fiscal year 2005/2006 with the average of 24.02. This explains that the percentage change in the year 2005/2006 is 1.26%. It increases to 26.70 and decreases to 25.93 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.36% and 1.32% respectively. In the final year, the ratio again decreases to 23.05 showing the change of 1.17%.

NABIL has the ratio of 31.37 in the fiscal year 2004/2005 and 33.87 in the fiscal year 2005/2006 with the average of 35.32. This explains that the percentage change in the year 2005/2006 is 1.08%. It decreases to 32.77 and again increases to 36.30 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.04% and 1.16% respectively. In the final year, the ratio increases to 42.30 showing the change of 1.35%.

HBL has the ratio of 12.00 in the fiscal year 2004/2005 and 15.85 in the fiscal year 2005/2006 with the average of 16.66. This explains that the percentage change in the year 2005/2006 is 1.32%. It increases to 16.72 and again increases to 18.39 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.40% and 1.53%

respectively. In the final year, the ratio increases to 20.33 showing the change of 1.69%.This explains, ROE of NABIL bank is more than that of NIBL and HBL which means that the shareholders rate of return from the investment is high in NABIL bank.

Figure No. 4.7



4.2 Return on Assets (ROA)

Return on assets is very crucial for measuring the profitability as well as production power of assets in terms of generating sales revenue. The relationship between net profit and total assets give the return on assets.

Table No. 4.8

Comparative Return on Assets of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	1.40	-	3.03	-	1.07	-
2005-2006	1.61	1.15	2.84	0.94	1.50	1.40

2006-2007	1.82	1.30	2.47	0.82	1.43	1.34
2007-2008	1.79	1.28	2.36	0.78	1.39	1.30
2008-2009	1.70	1.21	2.54	0.84	2.86	2.06
Average	**1.66**		**2.65**		**1.65**	
σ	**0.17**		**0.25**		**0.62**	
C.V.	**10.24**		**9.43**		**37.58**	

(Source: See appendix no. 6 and 14)

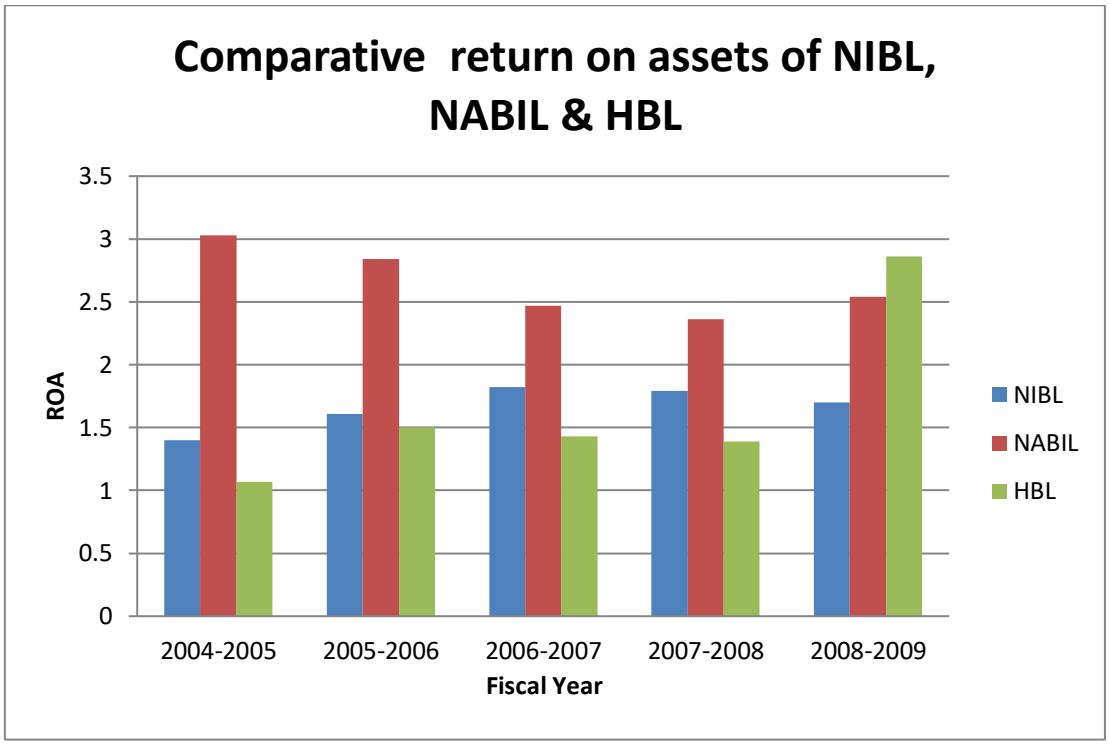
NIBL has the ratio of 1.40 in the fiscal year 2004/2005 and 1.61 in the fiscal year 2005/2006 with the average of 1.66. This explains that the percentage change in the year 2005/2006 is 1.15%. It increases to 1.82 and decreases to 1.79 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.30% and 1.28% respectively. In the final year, the ratio increases to 1.70 showing the change of 1.21%.

NABIL has the ratio of 3.03 in the fiscal year 2004/2005 and 2.84 in the fiscal year 2005/2006 with the average of 2.65. This explains that the percentage change in the year 2005/2006 is 0.94%. It decreases to 2.47 and again decreases to 2.36 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.82% and 0.78% respectively. In the final year, the ratio increases to 2.54 showing the change of 0.84%.

HBL has the ratio of 1.07 in the fiscal year 2004/2005 and 1.50 in the fiscal year 2005/2006 with the average of 1.65. This explains that the percentage change in the year 2005/2006 is 1.40%. It decreases to 1.43 and again decreases to 1.39 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.34% and 1.30% respectively. In the final year, the ratio increases to 2.86 showing the change of 2.06%.

Since the net profit earning of all the three sampled banks are positive we can say that these banks are in profit.

Figure No. 4.8



4.3 Earning Per Share (EPS)

This ratio tells us what profit has been earned by the common shareholder for ever share hold. A company can decide whether to increase or reduce the number of shares on issue. This is determined by dividing net profit after tax by number of shares.

Table No. 4.9

Comparative Earning per Shares of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	39.48	-	105.69	-	47.87	-
2005-2006	59.31	1.50	129.07	1.22	59.26	1.24
2006-2007	62.60	1.59	136.99	1.30	60.64	1.27
2007-2008	57.87	1.47	108.31	1.02	62.74	1.31
2008-2009	37.42	0.95	106.76	1.01	61.04	1.28

Average	**51.34**		**117.36**		**58.31**	
σ	**10.65**		**13.06**		**5.34**	
C.V.	**20.74**		**11.13**		**9.16**	

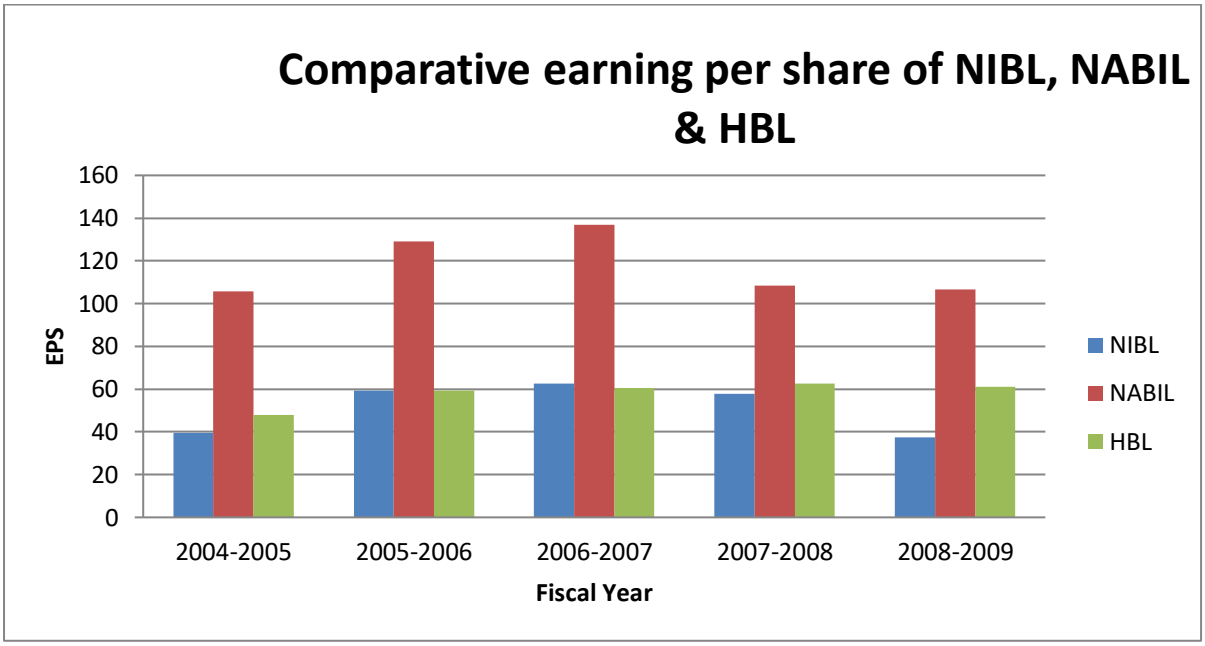
(Source: See appendix no. 6 and 16)

NIBL has the ratio of 39.48 in the fiscal year 2004/2005 and 59.31 in the fiscal year 2005/2006 with the average of 51.34. This explains that the percentage change in the year 2005/2006 is 1.50%. It increases to 62.60 and decreases to 57.87 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.59% and 1.47% respectively. In the final year, the ratio decreases to 37.42 showing the change of 0.95%.

NABIL has the ratio of 105.69 in the fiscal year 2004/2005 and 129.07 in the fiscal year 2005/2006 with the average of 117.36. This explains that the percentage change in the year 2005/2006 is 1.22%. It increases to 136.99 and decreases to 108.31 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.30% and 1.02% respectively. In the final year, the ratio decreases to 106.76 showing the change of 1.01%.

HBL has the ratio of 47.87 in the fiscal year 2004/2005 and 59.26 in the fiscal year 2005/2006 with the average of 58.31. This explains that the percentage change in the year 2005/2006 is 1.24%. It increases to 60.64 and again increases to 62.74 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.27% and 1.31% respectively. In the final year, the ratio decreases to 61.04 showing the change of 1.28%.

Figure No. 4.9



This reveals that each EPS of three sampled banks is in fluctuated trend throughout the study period. EPS of NABIL bank is higher than other banks on average. On an average EPS of NABIL bank are 117.36 whereas the EPS of NIBL is 51.34 and that of HBL is 58.31. This shows that the average of EPS of NABIL is more than twice greater than that of NIBL and HBL respectively. Further, the C.V. of NIBL is 20.74, NABIL is 11.13 and that of HBL is 9.16.

5.Liquidity Position (L)

Liquidity reflects the short-term financial strength of banks. Bank does not provide all deposit at loan and advances; certain percentage of deposit should be kept in bank in the liquid form. Liquidity risk threats the solvency of financial institutions.

There are two types of liquidity risk in commercial banks, first type of liquidity risk arises when depositors of commercial banks seek to withdraw their money and the second type of risk arises when commitment holders want to exercise the commitments recorded off the balance sheet.Commercial banks have to borrow the additional funds or sell the assets at fire

sale price to pay off the deposit liabilities. They become insolvent if sale price of the assets are not enough to meet the liability withdrawals.

The second type of liquidity risk arises when demand for unexpected loans can't be met due to the lack of the funds. Commercial banks can raise the funds by running down their cash assets, borrowing additional funds in the money markets and selling off other assets at distressed price. Both liability side liquidity risk (first type risk) and asset side liquidity risk (first type risk) and assets side liquidity risk (second type risk) affect the health of commercial banks adversely.

Maintaining the high liquidity position to minimize such risks also adversely affects the profitability of commercial banks. Return on highly liquid assets is almost zero. Therefore, banks should strike the tradeoff between liquidity position and profitability so that they could maintain their health sound. Commercial bank's liquidity exposure can be measured by analyzing the sources and uses of liquidity.

5.1 Cash and Bank Balance Ratio (CBR)

This ratio shows the relationship between the cash and bank balance to the total deposit. The total deposit also comprises of local currency. This is calculated by dividing the cash and bank balance with total deposit.

Table No. 4.10

Comparative Cash and Bank Balance Ratio of NIBL, NABIL and HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	11.09	-	4.97	-	10.88	-
2005-2006	14.95	1.35	4.31	0.87	8.67	0.80
2006-2007	20.99	1.89	7.61	1.53	7.47	0.69
2007-2008	25.24	2.28	11.63	2.34	10.25	0.94

2008-2009	30.22	2.72	13.79	2.77	12.63	1.16
Average	**20.50**		**8.46**		**9.98**	
σ	**6.88**		**3.70**		**1.78**	
C.V.	**33.56**		**43.74**		**17.84**	

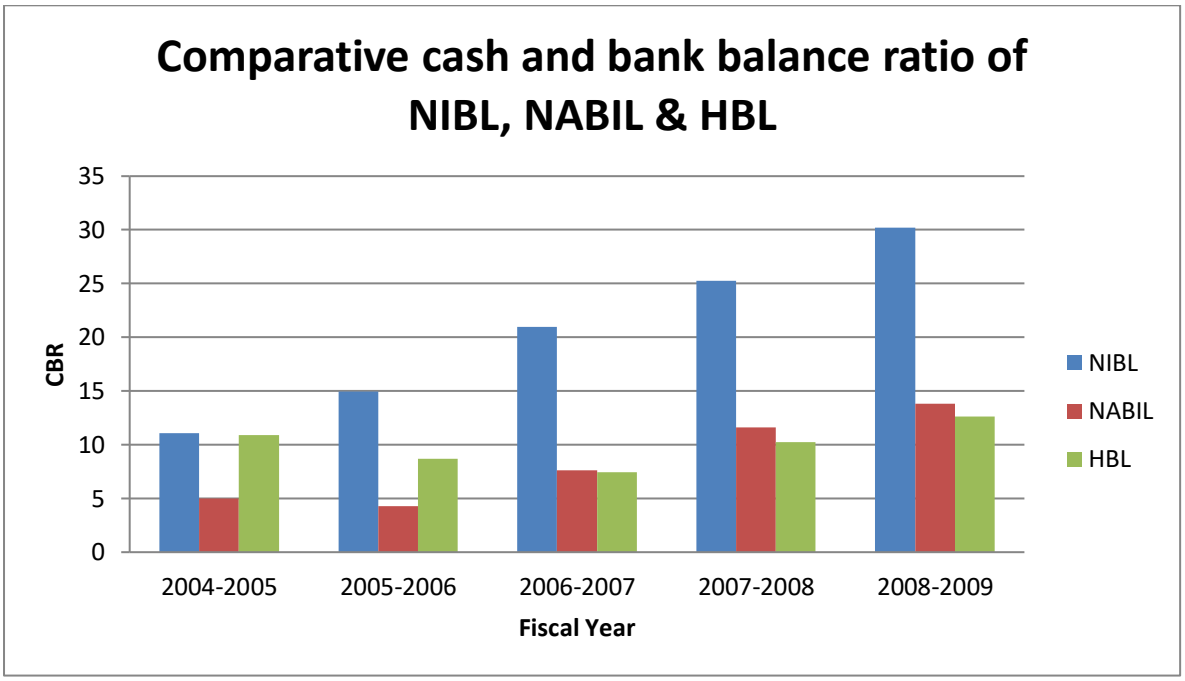
(Source: See appendix no. 7 and 17)

NIBL has the ratio of 11.09 in the fiscal year 2004/2005 and 14.95 in the fiscal year 2005/2006 with the average of 20.50. This explains that the percentage change in the year 2005/2006 is 1.35%. It increases to 20.99 and again increases to 25.24 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.89% and 2.28% respectively. In the final year, the ratio increases to 30.22 showing the change of 2.72%.

NABIL has the ratio of 4.97 in the fiscal year 2004/2005 and 4.31 in the fiscal year 2005/2006 with the average of 8.46. This explains that the percentage change in the year 2005/2006 is 0.87%. It increases to 7.61 and again increases to 11.63 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.53% and 2.34% respectively. In the final year, the ratio increases to 13.79 showing the change of 2.77%.

HBL has the ratio of 10.88 in the fiscal year 2004/2005 and 8.67 in the fiscal year 2005/2006 with the average of 9.98. This explains that the percentage change in the year 2005/2006 is 0.80%. It decreases to 7.47 and increases to 10.25 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.69% and 0.94% respectively. In the final year, the ratio increases to 12.63 showing the change of 1.16%.

Figure No. 4.10



All the three sampled banks have fluctuating trend. Higher C.V. of NABIL is 43.74% and whereas the lower C.V. is of HBL i.e. 17.84%. Further, table no. 4.10 indicates that NABIL bank has strong credit position with respect to its utilized deposit in profit generating purpose as compared to other sampled banks.

5.2 Investment in Government Securities (IGSR)

This ratio calculates the relation of investment in government securities with the total deposit. This shows the bank's investment in government securities with its total deposit. This can be derived by dividing investment in government securities by total deposit.

Table No. 4.11

Comparative Investment in Government Securities Ratio of NIBL, NABIL &HBL in %

(In Million)

Fiscal year	NIBL	Index	NABIL	Index	HBL	Index
2004-2005	16.55	-	21.44	-	27.78	-
2005-2006	12.47	0.75	15.75	0.73	23.10	0.83

2006-2007	21.69	1.31	26.15	1.22	25.83	0.93
2007-2008	29.10	1.76	23.86	1.11	27.92	1.01
2008-2009	22.58	1.36	25.13	1.17	20.32	0.73
Average	**20.48**		**22.47**		**24.99**	
σ	**5.65**		**3.71**		**2.91**	
C.V.	**27.59**		**16.51**		**11.64**	

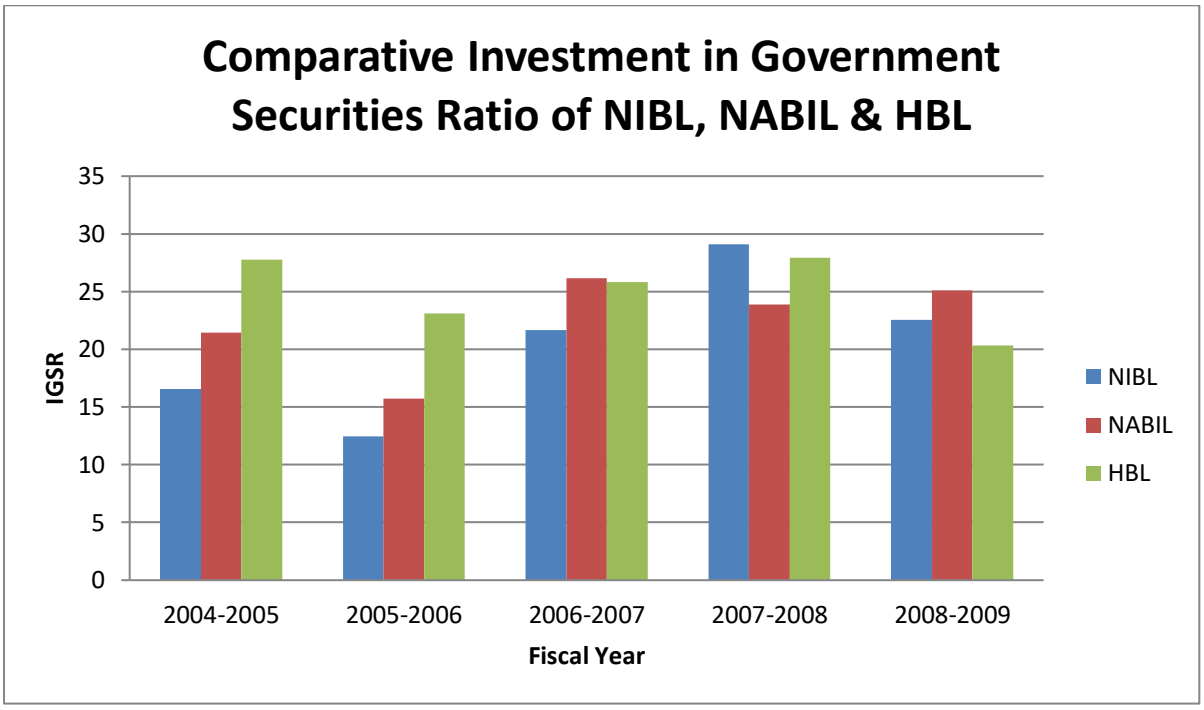
(Source: See appendix no. 7 and 18)

NIBL has the ratio of 16.55 in the fiscal year 2004/2005 and 12.47 in the fiscal year 2005/2006 with the average of 20.48. This explains that the percentage change in the year 2005/2006 is 0.75%. It increases to 21.69 and again increases to 29.10 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.31% and 1.76% respectively. In the final year, the ratio increases to 22.58 showing the change of 1.36%.

NABIL has the ratio of 21.44 in the fiscal year 2004/2005 and 15.75 in the fiscal year 2005/2006 with the average of 22.47. This explains that the percentage change in the year 2005/2006 is 0.73%. It increases to 26.15 and decreases to 23.86 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 1.22% and 1.11% respectively. In the final year, the ratio decreases to 20.32 showing the change of 0.73%.

HBL has the ratio of 27.78 in the fiscal year 2004/2005 and 23.10 in the fiscal year 2005/2006 with the average of 24.99. This explains that the percentage change in the year 2005/2006 is 0.83%. It increases to 25.83 and again increases to 27.92 in the fiscal year 2006/2007 and 2007/2008 which shows the percentage change of 0.93% and 1.01% respectively. In the final year, the ratio decreases to 20.32 showing the change of 0.73%.

Figure No. 4.1


Comparative Investment in Government Securities Ratio of NIBL, NABIL & HBL
IGSR
35
30
25
20
15
10
5
0
2004-2005
2005-2006
2006-2007
2007-2008
2008-2009
Fiscal Year
NIBL
NABIL
HBL

CHAPTER-V
SYNOPSIS, CONCLUSION AND RECOMMENDATION

Having completed the basis analysis required for the study. The final and most important task of the researcher is to enlist findings, issues and challenge of the study an give suggestions for further improvement. This would be meaningful to the top management of the commercial banks to initiate action and achieve the desired result. The objectives of the researcher are not only to point out years and mistakes but also to correct them and give directions for further growth and improvement.

Banking history in Nepal, in true sense started with the inception of Nepal bank Ltd. (NBL) on 30th kartik 1994 B.S. Right inception, carried out the functions of the commercial bank but, integrated and speedy development of country is possible only when competitive banking service reaches nooks and corners of the country. On account of the view, at present, Nepalese financial system comprises of commercial banks, development banks and finance companies, micro credit development banks, saving and credit cooperatives, nongovernmental organization performing limited banking activities.

Hence it is the banking sector, which has played a vital role in economic development of the country. Besides, it is due to those reforms that have made a fall out of the general liberalization of the economic, resulting into stiff competitive challenge for the private sector banks from public sector banks, foreign banks, financial institution and thus mobilizing the liquid fonts of the public. But the intense competition and lack of sufficient investment opportunity have created threats to the bank. Therefore the study has been conducted to evaluate the performance of the selected commercial banks. Among the listed commercial banks in Nepal Rastra Bank, only NIBL, NABIL and HBL have been taken as sample to access the efficacy of commercial banks in terms of indicator of the overall banking sectors.

To check the chances of duplications and follow the principles and doctrines of the research, supportive text and previous directions have been reviewed. In this chapter, summary of the study and conclusion derived from the study are presented for analyzing the financial data of

the sample bank, the financial tools-ration analysis and statistical tools have been applied. From the analysis and interpretation of the data , the researcher arrives at the following conclusion.

5.3 Synopsis

The world is competitive and everyone has to fight to sustain. The line of control has been dissolved and the world has been globalized. So the competition is not only with us that is why the performance and sustainability is important.

This study covers comparative financial analysis of three banks of the fiscal year through CAMEL approach. Various tools and techniques have been used to analyze the data. The primary purpose of conducting this study is to evaluate the efficacy of commercial bank in Nepal. For this, specific objectives are defined in particular goals. The basic objective is to examine how further commercial banks are managing efficacy in the framework of CAMEL. Basically the study has been organized in five chapters, consisting of introduction, conceptual framework and literature review, research method, data presentation and analysis and finally summary conclusion and recommendation are made.

The scope of the study is limited to the randomly selected three commercial banks, namely NIBL, NABIL and HBL. In this regard five year trend from FY 2004-2005 to 2008-2009 and data have analyzed through descriptive approach.

Similarly, evaluation and analysis of qualities of data have been collection from secondary sources as well as related literature have been reviewed which consist of 23 books, 4 annual reports, 17 dissertations and 5 websites. A general concept has been given as conceptual frameworks. Finally, the data have been analyzed with the help of various statistical and financial tools to possible extend.

The summary of major findings of the study is described as follows.

Our study covers comparative financial analysis of three banks of the five fiscal years through CAMEL approach. Various tools and techniques have been used to analyze the data:

1. All the three commercial banks have been maintaining its 5.5% of core capital ratio and 11% of capital adequacy ratio as per regulated by Nepal Rastra Bank.

2. All the non-performing loans of the sampled banks are in decreasing trend in which HBL has the highest non-performing loan of 3.63% in the FY 2006/2007.

3. The loan loss reserve ratio of the HBL is better than NIBL and NABIL.

4. Loan loss coverage ratio of the NIBL and NABIL is more than 100%, which shows that the positions of these banks are in safe side. Whereas, the ratio of HBL is less than 100% which shows that the position of this bank is not safe.

5. Management efficiency ratio of NABIL is higher than that of NIBL and HBL, but all the three sampled banks have increasing trend of MER.

6. Return on Equity and Return on Assets of HBL shows the increasing trend whereas the other two banks show the fluctuating trend. This shows that HBL has positive market trend.

7. Earning per share of NABIL is greater than that of NIBL and HBL.

8. Cash and bank balance ratio of HBL is in fluctuating trend whereas NABIL and NIBL has increasing trend. But NIBL has maintained highest cash and bank balance ratio of 30.22% in the FY 2008/2009.

9. All the three sampled banks have fluctuating investment in government securities. HBL has higher ratio as compared to other banks. The gradual decrease of the C.V. of the three banks shows the satisfactory results comparatively.

5.2Conclusion

This study is performed in order to analyze the financial position of NIBL, NABIL and HBL. For this the standard CAMEL analysis was conducted and then some strong and weak points of all the three sampled banks are taken and recommendation for it is also given on the basis of finding of CAMEL analysis.

Economic development plays the significant role for the countries overall development. In Nepalese prospective, the establishment of the financial institution have played progressive role for the economic development of the country. So, far commercial banks have been proved as a prime mover of the economic development in Nepalese senior. But as developing country, Nepal needs to strengthen its economic structure to achieve rapid overall development and Nepalese commercial banks, lack development due the problems of fund mobilization and investment.

Similarly, Nepalese finance companies are still stuck to traditional approaches for the fund utilization and management. So they need t revitalize their role, which requires encouraging environment be innovative and diversify their business to their projected areas. They should resort to find new method of financing instead of depending only in the time bound fixed deposit that cannot always cope with the long term lending maturity structure. They have not been able to utilize their funds most efficiently and productively. Similarly, commercial banks continue to have a gradual diversification of their function by shifting a considerable portion of their assets.

On the other ground, there has been increasing competition among the existing commercial banks, co-operative societies and finance companies particularly due to the opening of co-operative which operates limited banking transactions in the country.

Furthermore, the opening of new co-operative, which without taking license from the central bank of Nepal and accepting deposit at an exorbitant rate has hampered the existing formal commercial banks deposit mobilization and investment activities.

Hence, commercial banks are one financial institution which simulate using by mobilizing idle resources in one hand and on the other hand , lend the resource to mobilize to those who have investment opportunities. Thus they have served as one institution of development to enhance and promote industrial and agricultural activities in the country.

Even though, sufficient returns have not been earned and strong, stable appropriate investment policy has not been followed by the commercial banks is going favorable and the lending capability has also gone up to considerable extend.

5.3 Recommendation

After highlighting on the performance of commercial banks in Nepal, reviewing the various literature concerning the study and using appropriate model to present and analyze the date in suitable forms, the following recommendations are submitted to concerned authority to improve the cash fluency in Nepal on t basis of finding of analysis and conclusion drawn upon thereafter.

Analysis, findings and conclusion of the present study on the three different banks demand some suggestion to improve the application of cash management from the betterment. This study has clearly shown that objectives of finance companies are not always mentioned, planning is not systematic, and there is a lack of entrepreneurships and moreover due to lack of coordination between department and implementation aspects is poor as well. Hence, this study recommends the following aspects in order to improve commercial banks performance.

For the achievement of target goals and objectives of commercial banks, from above study, analysis observation, with facts we must conclude with a reasonable realistic solution. Commercial banks have to canalize funds by gradually shifting priorities from hire purchase to trading for industries to help capital formation in the country. Commercial banks are keys suggested for improvement in the present status by applying following recommendation.

1. Regional Expansion

Most of the commercial banks have concentrated in Kathmandu for resource mobilization. Such concentration in few pocket areas of Kathmandu requires a new shift and strategy to expand regionally to rural areas where scattered public savings, can be collected and utilize to formal productive sectors.

2. Conducting training and seminar

Training and seminar are very important to have frequent sharing of experience by conducting a seminar at least once a twice a year. NRB should also encourage training to new entrants by providing orientation on the conceptual dimension and practical aspects of operating commercial banks through the development of capital market training institute.

3. Frequent supervision and control of commercial banks

Commercial banks are playing with public money that consists of both depositors and investors. As much NRB has to keep a strict watch over activities to protect the interest of public. For these, regular follow up as well as regular information must be made mandatory to NRB to have correct evaluation and monitoring of their performance and minimize any irregularities directed in the course of investigation.

4. Appropriate management

A recent study in the US found that fraud and mismanagement were involved in 90% of the finance companies failure. So the quality of loan portfolio, the adequacy of capital and the soundness of management should always and strictly supervise in the commercial banks.

5. Chances to small depositors

Commercial banks should be allowed to operate saving deposit amount this will provide an incentive for the small deposit that have left in the cold by the refusal of the banking system to carter to their needs.

6. Positive impact to public confidence

Despite having the largest numbers among the commercial bank, the commercial banks do not seem to have won the public confidence. There are needs to be examined and reexamined and appropriate measures adopted at the earliest with the best of efforts from all concern.

7. Equivalent to the customer

The loans are forwarded mostly towards the higher-class businessman and industrialist. A few percentage of total credit flooded towards the weaker section of the society. This type of practice in financial system encourage to "Haves and haves not" which indicates that poor becomes poorer and rich becomes richer.

8. Investment in productive area

Even though the credit deposit ratio are in increasing trend, investment pattern of the finance companies only shows their interest in productive increment i.e. hire purchase, term loan etc. so the credit should be diverted to the productive, industrial as well as agricultural sector to expect long-term existence of commercial banks to support the national economy.

In summary, commercial banks have to prove it to the country that we can really contribute to the national economy. They even need to prove that they are efficient and viable agencies for mobilization of saving and its channelization in to productive sector. They also need to show that they are professionals, managed and competent enough to ensure adequate rate to return on investment and to maintain market price per share, are strategically well planned to be competitive with banks, other agencies and are trust worthy.

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Appendix No. 2

List of Licensed Commercial Banks, Population Frame and Sample

S.No.	Name of the Banks	Operation Date(A.D.)	Head Office	Paid Up Capital *
1	Nepal Bank Ltd.	1937/11/15	Kathmandu	380.00
2	Rastriya Banijya Bank Ltd.	1966/01/23	Kathmandu	1172.30
3	Nabil Bank Ltd.	1984/07/16	Kathmandu	2029.77
4	Nepal Investment Bank Ltd.	1986/02/27	Kathmandu	3012.92
5	Standard Chartered Bank Nepal Ltd.	1987/01/30	Kathmandu	1610.17
6	Himalayan Bank Ltd.	1993/01/18	Kathmandu	2400.00
7	Nepal SBI Bank Ltd	1993/07/07	Kathmandu	2102.97
8	Nepal Bangladesh Bank Ltd.	1994/06/05	Kathmandu	2009.40
9	Everest Bank Ltd.	1994/10/18	Kathmandu	1391.57
10	Bank of Kathmandu Ltd.	1995/03/12	Kathmandu	1604.19
11	Nepal Credit and Commerce Bank Ltd.	1966/10/14	Siddharthanagar, Rupandehi	1400.00
12	Nepal Industrial and Commercial Bank Ltd.	1998/07/21	Biratnagar, Morang	1311.55
13	Lumbini Bank Ltd.	1998/07/17	Narayangadh, Chitwan	1430.00
14	Machhapuchre Bank Ltd.	200/10/03	Pokhara, Kaski	1627.20
15	Kumari Bank Ltd.	2001/04/03	Kathmandu	1485.00
16	Laxmi Bank Ltd.	2002/04/03	Birgunj, Parsa	1613.52
17	Siddhartha Bank Ltd.	2002/12/24	Kathmandu	1618.26
18	Agriculture Development Bank Ltd.	1968/01/02	Kathmandu	9474.30
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa	1601.45
20	Citizens Bank International Ltd.	2007/06/21	Kathmandu	2101.84
21	Prime Commercial Bank Ltd.	2007/09/24	Kathmandu	2245.75
22	Bank of Asia Ltd.	2007/10/12	Kathmandu	2000.00

23	Sunrise Bank Ltd.	2007/10/12	Kathmandu	2015.00
24	DCBL Bank Ltd.	2008/05/25	Kamaladi, Kathmandu	2000.00
25	NMB Bank Ltd.	2008/06/05	Babarmahal, Kathmandu	2000.00
26	Kist Bank Ltd.	2009/05/07	Anamnagar, Kathmandu	2000.00
27	Janata Bank Nepal Ltd.	2010/04/05	New Baneshwor, Kathmandu	1400.00
28	Mega Bank Nepal Ltd	2010/07/23	Kantipath, Kathmandu	1631.00
29	Commerz and Trust Bank Nepal Ltd.	2010/09/20	Kamaladi, Kathmandu	1400.00
30	Civil Bank Ltd.	2010/11/26	Kamaladi, Kathmandu	1200.00
31	Century Commercial Bank Ltd.	2011/03/10	Putalisadak, Kathmandu	1080.00
32	Sanima Bank Ltd.	2012/02/15	Nagpokhari, Kathmandu	2016.00

*As on 2068 Poush end

Financial Tools

Appendix No. 3

Indicators of Capital Adequacy

(In Million)

Fiscal Year	Bank	CC	SC	TC	RWA	CCR	CAR
2004/2005	NIBL	1161.48	417.30	1578.77	13632.91	8.52	11.58
	NABIL	1610.51	155.56	1766.07	14193.07	11.35	12.44
	HBL	1525.77	491.29	2017.06	18321.72	8.33	11.01
2005/5006	NIBL	1393.27	700.93	2094.2	17491.79	7.97	11.97
	NABIL	1830.79	258.53	2089.32	16976.37	10.78	12.31
	HBL	1721.94	520.90	2242.84	19918.33	8.65	11.26
2006/2007	NIBL	1852.20	999.42	2851.62	23435.64	7.90	12.17
	NABIL	1992.85	314.78	2307.63	19166.77	10.40	12.04
	HBL	2104.60	546.77	2651.37	21889.71	9.61	12.11
2007/2008	NIBL	2658.91	1232.32	3891.23	34484.54	7.71	11.28
	NABIL	2363.60	635.13	2998.73	33315.89	8.75	12.00
	HBL	2531.42	703.45	3234.87	25624.47	9.36	12.42
2008/2009	NIBL	3879.97	1215.38	5095.35	45312.26	8.56	11.24
	NABIL	3044.34	682.74	3727.08	34816.50	8.74	10.70
	HBL	3074.44	770.77	3845.21	34905.89	8.81	11.02

Where,

CC = Core Capital

SC = Supplementary Capital

TC = Total Capital (CC+SC)

RWA = Risk Weighted Assets

CCR = Core Capital Ratio

CAR = Capital Adequacy Ratio

Appendix No. 4

Indicators of Asset Quality

(In Million)

Fiscal Year	Bank	LLR	NPA	TLA	NPAR	LLRR	LLCR
2004/2005	NIBL	325.16	280.87	10220.65	2.75	3.18	115.17
	NABIL	355.82	143.06	10617.02	1.35	3.35	248.72
	HBL	1017.27	995.36	13105.98	7.59	7.76	102.20
2005/5006	NIBL	399.19	272.49	12902.96	2.11	3.09	146.50
	NABIL	350.38	179.57	12994.31	1.38	2.70	195.12
	HBL	1113.52	1037.39	15509.36	6.69	7.18	107.34
2006/2007	NIBL	471.16	387.35	17477.46	2.22	2.70	121.64
	NABIL	353.44	176.97	15652.67	1.13	2.26	199.72
	HBL	792.27	639.83	17624.16	3.63	4.50	123.83
2007/2008	NIBL	580.12	308.25	27529.31	1.12	2.15	135.99
	NABIL	352.38	171.72	21759.52	0.77	2.22	215.86
	HBL	865.25	791.64	19497.52	2.36	5.68	130.21
2008/2009	NIBL	678.23	415.69	36827.05	2.45	2.01	125.93
	NABIL	350.12	224.82	21756.21	1.15	2.65	219.56
	HBL	923.16	823.41	24793.16	2.16	7.03	135.63

Where,

LLR = Loan Loss Reserve

NPA = Non-Performing Assets (Loan & Advances)

TLA = Total Loan & Advance

NPAR = Non-Performing Assets Ratio

LLRR = Loan Loss Reserve Ratio

LLCR = Loan Loss Coverage Ratio

Appendix No. 5

Indicators of Management Efficiency

Fiscal Year	Bank	**NPAT**	**NOE**	**MER**
2004/2005	NIBL	232.15	353	65.76
	NABIL	520	426	122.07
	HBL	308.28	501	61.53
2005/2006	NIBL	350.54	390	89.88
	NABIL	635	441	143.99
	HBL	457.46	561	81.54
2006/2007	NIBL	501.4	514	97.55
	NABIL	674	427	157.85
	HBL	491.82	584	84.22
2007/2008	NIBL	696.73	622	112.33
	NABIL	746.50	416	162.79
	HBL	635.84	591	87.23
2008/2009	NIBL	901.63	766	126.12
	NABIL	1031.10	505	170.85
	HBL	752.83	591	89.98

Where,

NPAT = Net Profit After Tax

NOE = Number of Employees

MER = Management Efficiency Rat

Appendix No. 6

Indicators of Earning Performance

(In Million)

Fiscal Year	Bank	NPAT	SHF	TA	NOS	ROE	ROA	EPS
2004/2005	NIBL	232.15	1180.17	16601.10	5.88	19.67	1.40	39.48
	NABIL	520	1657.6	17186.33	4.92	31.37	3.03	105.69
	HBL	308.28	2568.4	28871.34	6.44	12.00	1.07	47.87
2005/2006	NIBL	350.54	1415.44	21732.08	5.91	24.77	1.61	59.31
	NABIL	635	1875	22329.97	4.92	33.87	2.84	129.07
	HBL	457.46	2885.59	30579.81	7.72	15.85	1.50	59.26
2006/2007	NIBL	501.4	1878.12	28073.52	8.01	26.70	1.82	62.60
	NABIL	674	2057.05	27253.39	4.92	32.77	2.47	136.99
	HBL	491.82	2942.23	34314.87	8.11	16.72	1.43	60.64
2007/2008	NIBL	696.73	2686.79	39405.96	12.03	25.93	1.79	57.87
	NABIL	746	2213.65	37554.01	6.89	36.30	2.36	108.31
	HBL	635.84	2512.99	36857.62	10.14	18.39	1.39	62.74
2008/2009	NIBL	901.63	3907.84	53596.75	24.07	23.05	1.70	37.42
	NABIL	1031.10	2502.63	44325.62	9.66	42.30	2.54	106.76
	HBL	752.83	3119.88	40046.68	12.16	20.33	2.86	61.04

Where,

NPAT = Net Profit After Tax

SHF = Share Holders Fund

TA= Total Assets

NOS = Number of Shares

ROE = Return on Equity

ROA = Return on Assets

EPS = Earning Per Share

Appendix No. 7

Indicators of Liquidity Position

(In Million)

Fiscal Year	Bank	IGS	TD	C&B	NRB	CBR	IGSR
2004/2005	**NIBL**	2001.10	12090.54	1340.48	739.12	11.09	16.55
	NABIL	2413.94	11260.68	559.38	368.13	4.97	21.44
	HBL	5144.32	18517.75	2014.47	1565.32	10.88	27.78
2005/2006	**NIBL**	1948.50	15620.82	2335.52	1526.07	14.95	12.47
	NABIL	2301.46	14614.90	630.24	299.07	4.31	15.75
	HBL	4577.66	19818.34	1717.35	1093.82	8.67	23.10
2006/2007	**NIBL**	2522.30	11631.36	2441.51	1357.63	20.99	21.69
	NABIL	4808.35	18384.53	1399.83	1101.04	7.61	26.15
	HBL	6079.38	23538.25	1757.35	1258.09	7.47	25.83
2007/2008	**NIBL**	3155.00	34451.73	3754.94	1464.48	25.24	29.10
	NABIL	4646.88	31915.05	1642.33	1829.47	11.63	23.86
	HBL	7166.53	31842.78	2712.39	1935.84	10.25	27.92
2008/2009	**NIBL**	2531.30	46698.10	7918.01	1833.46	30.22	22.58
	NABIL	5383.74	37348.25	1957.42	2648.59	13.79	25.13
	HBL	3907.34	34681.34	3575.97	2328.41	12.63	20.32

Where,

IGS = Investment in Government Securities

TD = Total Deposit

C&B = Cash and Balance

NRB BAL = Nepal Rastra Bank Balance (Using Local Currency)

CBR = Cash and Bank Ratio

IGSR = Investment in Government Securities Ratio

Formula Used for 5 Financial Years

$$\bar{X} = \frac{\sum X}{n} \qquad \sigma = \sqrt{\frac{1}{n}\sum(X - \bar{X})^2} \qquad \text{C.V.} = \frac{\text{S.D.}}{\bar{X}} \times 100$$

Appendix No. 8

Calculation of Core Capital Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2004-2005	8.52	0.15	11.35	1.80	8.33	0.38
2005-2006	7.97	0.03	10.78	0.59	8.65	0.09
2006-2007	7.9	0.05	10.40	0.15	9.61	0.44
2007-2008	7.71	0.18	8.75	1.59	9.36	0.17
2008-2009	8.56	0.18	8.74	1.61	8.81	0.02
Total	40.66		50.02		44.76	1.10
Average	8.13		10.01		8.95	
S.D.	0.34		1.07		0.47	
C.V.	4.18		10.69		5.25	

Appendix No. 9

Calculation of Capital Adequacy Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$
2004-2005	11.58	0.01	12.44	0.29	11.01	0.30
2005-2006	11.97	0.10	12.31	0.17	11.26	0.09
2006-2007	12.17	0.27	12.04	0.02	12.11	0.30
2007-2008	11.28	0.14	12.00	0.01	12.42	0.74
2008-2009	11.24	0.17	10.70	1.44	11.02	0.29
Total	58.24	0.69	59.49	1.93	57.82	1.72
Average	11.65		11.90		11.56	
S.D.	0.37		0.62		0.59	
C.V.	3.18		5.21		5.10	

Appendix No. 10

Calculation of Non-Performing Assets Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$
2004-2005	2.75	0.12	1.35	0.11	7.59	9.61
2005-2006	2.11	0.09	1.38	0.09	6.69	4.84
2006-2007	2.22	0.04	1.13	0.30	3.63	0.74
2007-2008	2.53	0.02	0.77	0.46	2.36	4.54
2008-2009	2.45	0.01	1.15	0.23	2.16	5.43
Total	12.06	3.11	5.78	1.19	22.43	25.16
Average	2.41		1.16		4.49	
S.D.	0.79		0.49		2.24	
C.V.	32.78		42.24		49.89	

Appendix No. 11

Calculation of Loan Loss Reserve Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2004-2005	3.18	0.31	3.35	0.51	7.76	1.33
2005-2006	3.09	0.22	2.70	0.01	7.18	0.75
2006-2007	2.70	0.01	2.26	0.15	4.50	3.73
2007-2008	2.15	0.23	2.22	0.18	5.68	0.56
2008-2009	2.01	0.38	2.65	0.01	7.03	0.36
Total	13.13	1.15	13.18	0.86	32.15	6.73
Average	2.63		2.64		6.43	
S.D.	0.48		0.42		1.13	
C.V.	18.25		15.91		0.18	

Appendix No. 12

Calculation of Loan Loss Coverage Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$	X	$(X - \bar{X})^2$
2004-2005	115.17	192.65	248.72	1083.71	102.20	311.17
2005-2006	146.50	304.50	195.12	427.66	107.34	156.25
2006-2007	121.64	54.91	199.72	258.57	123.83	15.92
2007-2008	135.99	48.16	215.86	0.01	130.21	107.54
2008-2009	125.93	9.73	219.56	14.14	135.63	249.33
Total	645.23	609.95	1078.98	1784.09	599.21	840.21
Average	129.05		215.80		119.84	
S.D.	11.05		18.89		12.98	
C.V.	8.56		8.75		10.83	

Appendix No. 13

Calculation of Management Efficiency Ratio

Fiscal Year	NIBL		NABIL		HBL	
	$\mathbf{X}$	$(\mathbf{X}-\bar{\mathbf{X}})^2$	$\mathbf{X}$	$(\mathbf{X}-\bar{\mathbf{X}})^2$	$\mathbf{X}$	$(\mathbf{X}-\bar{\mathbf{X}})^2$
2004-2005	65.76	1060.81	122.07	866.71	61.53	375.20
2005-2006	89.88	71.40	143.99	56.55	81.54	0.41
2006-2007	97.55	0.61	157.85	40.19	84.22	11.02
2007-2008	112.33	196	162.79	127.24	87.23	40.07
2008-2009	126.12	772.28	170.85	374.04	89.98	82.45
Total	491.64	2101.10	757.55	1464.73	404.5	509.15
Average	98.33		151.51		80.9	
S.D.	20.50		17.12		10.09	
C.V.	20.85		11.30		12.47	

Appendix No. 14

Calculation of Return on Assets

Fiscal Year	NIBL		NABIL		HBL	
	$\mathbf{X}$	$(\mathbf{X}-\bar{\mathbf{X}})^2$	$\mathbf{X}$	$(\mathbf{X}-\bar{\mathbf{X}})^2$	$\mathbf{X}$	$(\mathbf{X}-\bar{\mathbf{X}})^2$
2004-2005	1.4	0.07	3.03	0.15	1.07	0.34
2005-2006	1.61	0.01	2.84	0.04	1.5	0.03
2006-2007	1.82	0.03	2.47	0.03	1.43	0.05
2007-2008	1.79	0.02	2.36	0.08	1.39	0.07
2008-2009	1.70	0.02	2.54	0.02	2.86	1.46
Total	8.32	0.15	13.24	0.32	8.25	1.95
Average	1.66		2.65		1.65	
S.D.	0.17		0.25		0.62	
C.V.	10.24		9.43		37.58	

Appendix No. 15

Calculation of Return on Equity

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$
2004-2005	19.67	18.62	31.37	15.60	12.00	21.72
2005-2006	24.77	0.56	33.87	2.10	15.85	0.66
2006-2007	26.70	7.18	32.77	6.50	16.72	0.01
2007-2008	25.93	3.65	36.30	0.96	18.39	2.99
2008-2009	23.05	0.94	42.30	48.72	20.33	13.47
Total	120.12	31.25	176.61	73.88	83.29	38.85
Average	24.02		35.32		16.66	
S.D.	2.5		3.84		2.79	
C.V.	10.41		10.87		16.75	

Appendix No. 16

Calculation of Earning Per Share

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$
2004-2005	39.48	140.66	105.69	136.19	47.87	108.99
2005-2006	59.31	63.52	129.07	137.12	59.26	0.90
2006-2007	62.60	126.79	136.99	385.34	60.64	5.43
2007-2008	57.87	42.64	108.31	81.90	62.74	19.62
2008-2009	37.42	193.77	106.76	112.36	61.04	7.45
Total	256.68	567.38	586.82	852.91	291.55	142.39
Average	51.34		117.36		58.31	
S.D.	10.65		13.06		5.34	
C.V.	20.74		11.13		9.16	

Appendix No. 17

Calculation of Cash & Bank Balance Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$
2004-2005	11.09	88.55	4.97	12.18	10.88	0.81
2005-2006	14.95	30.80	4.31	17.22	8.67	1.72
2006-2007	20.99	0.24	7.61	0.72	7.47	6.30
2007-2008	25.24	22.47	11.63	10.05	10.25	0.07
2008-2009	30.22	94.48	13.79	28.41	12.63	7.02
Total	102.49	236.54	42.31	68.58	49.9	15.92
Average	20.50		8.46		9.98	
S.D.	6.88		3.70		1.78	
C.V.	33.56		43.74		17.84	

Appendix No. 18

Calculation of Investment in Government Securities Ratio

Fiscal Year	NIBL		NABIL		HBL	
	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$	X	$(X-\bar{X})^2$
2004-2005	16.55	15.44	21.44	1.06	27.78	7.78
2005-2006	12.47	64.16	15.75	45.16	23.10	3.57
2006-2007	21.69	1.46	26.15	13.54	25.83	0.71
2007-2008	29.10	74.30	23.86	1.93	27.92	8.58
2008-2009	22.58	4.41	25.13	7.08	20.32	21.81
Total	102.39	159.77	112.33	68.77	124.95	42.45
Average	20.48		22.47		24.99	
S.D.	5.65		3.71		2.91	
C.V.	27.59		16.51		11.64	