

# CHAPTER – I

## INTRODUCTION

### ➤ 1.1 DEFINITION OF BANK

Bank is among the most important financial institutions in the economy and essential business in thousands of local towns and cities. In this context, there is much confusion about exactly what a bank is. Certainly, banks must be identifying by the functions (services and roles) they perform in the economy. The problem is not only that the functions of their principal competitors are also changing. Indeed many financial institutions – including security dealers, brokerage firms and insurance companies are trying to be as similar as possible to banks in the services they offer. On the contrary, bankers are challenging these non- bank competitor by lobbying for expanded authority. Hence the meaning of a bank is better to be precise and clear.

A bank collects money from those who have it to spare or who are saving it out of their incomes and it lends this money to those who require it (Singh, H.B., 1998).

A banker or bank is a person or company carrying on the business of receiving money and collecting drafts, for customer's subject to the obligation of honoring cheques drawn upon them from time to time by the customers to the extent of the amount available on their customer (Jain. P., 1999)

A bank is the business organization that services and holds deposits of funds from orders makes loans as extends credits and transfers funds by written orders of deposits (Encyclopaedia,1984).

In this way, we can interpret that bank is an institution, which accepts deposits from the public and in turn advance loan to business entity and personal customers. The banker's business is to take the debts of other people to offer his own in exchange, and thereby create money. Therefore, a bank may be called the financial supermarket providing all kinds of monetary service, which is necessary for the industrialization, and economic

development of the country. In this present situation, bank plays a vital role in developing the economy of any country.

Overall development of a country characterizes its social, cultural, political or economical growth lies in the development of a well-managed banking system. Hence, banks can be considered extremely necessary for the health and perennial progress of our country. By creating and mobilizing the capital, rendering various financial services banks are contributing to the establishments and development of so many small and large scale industries, domestic as well as international trade, and commerce. Through banks, transaction of money, modern banks are established with which facilitate the channeling of funds from the surplus units (savers) to the deficit spending units (investor) in the economy. Moreover, banks also encourage industrial innovations and business expansion through the funds provided by them to the entrepreneur.

Besides this they discharge various functions on behalf of their customers and in turn, they are paid for their services. Commercial banks are not limited to banking and also play the role of issuing banknotes (promissory notes issued by a banker and payable to bearer on demand), processing of payments by way of telegraphic transfer, internet banking or other means etc. They undertake the payments of subscriptions, insurance premiums, rent etc, in addition they purchase and discount bills of exchange, promissory notes, exchange foreign currency. They buy and sell shares and securities on behalf of customers. Banks are very important to individual business and for the country. In fact, the economic development of a country is not possible without a sound banking system although commercial banks are the dominant institutions in the financial sectors and are the foundation of the national economy. They transfer monetary resources from savers to users. Commercial Bank Act, 2031 has defined a commercial bank as, an organization which exchanges money, accepts deposits, grants loans and performs commercial banking functions and which is not a bank meant for co-operative, agriculture, industries or for such specific purpose (Commercial Bank Act, 2031 B.S.).

## **1.2 BACKGROUND OF THE STUDY**

Business scenarios have been changing rapidly around the world. Most countries around the world have effectively eliminated the state of monopolies of business. Due to

globalization, many international companies have been actively doing their business across the national boundaries. In this competitive market barrier is becoming the major problem for the survival. Now due to these factors, financial institution faces significant changes in a time of new alignments in the domestic market and increase international competition.

Financial intermediaries are those institutions, which acts as a bridge between the savers in the community and the users of the saving. Commercial bank is also one of the financial intermediaries. The size of their transaction action mirrors the economic happening of the country. Example is mass failure of commercial bank in 1930 reflected the phenomenon of several global depression in the world. Commercial banks have played a vital role in giving a direction to economy's development over time by financing the requirement of trade and industry in the country.

The central bank and the commercial bank plays its significant role in the economic development of the country as they are the main source of the capital for the most of the investment from one sector to another. Central bank monitor the spread i.e. deposit interest rate and loan interest rate and other bank rate, establishment of branches and many other aspect of financial institution. Central bank almost governs of the financial instructions. Unlike the central bank, commercial banks are the profit oriented financial institutions. Mainstream function of the commercial bank is to mobilize the scattered saving of the public by providing credit to the needy firms, industries and people to get the productive use. Being a profit oriented financial service providing institution, certain percent interest rate is given to the depositor and the bank charges certain percent interest in the loan facility, which we called as the spread rate.

## ➤ **HISTORY OF BANKING**

The term 'bank' is derived from the Latin word 'bancus', Italian word 'banca', French word 'banque', which means 'a bench' and German word 'bank' which mean joint stock company. In most simple form, banking is as old as authentic history. The early bankers, the Jew in Lombardy, transacted third business at benches in the market place. When they are unable to meet their liabilities, the depositors used to break their benches and the term bankrupted was derived. Bank provides the public with checkable deposits, such as

demand deposits as well as time deposits and uses their depositor's fund mainly to make loan and buy securities. Bank operates as financial intermediaries standing between the ultimate lender (depositors) and the ultimate borrowers.

The bank of Venice, established in 1157 A.D. is supposed to be the ancient bank. Originally, it was not a bank in real sense being simply an office for the transfer of the public debt. Subsequently, bank of Barcelona (1401) and bank of Geneva (1407) were established. The 'Bank of England' was in 1694 A.D. 'The Bank of Hindustan' established in 1770 A.D. was the first Indian bank. Nepal Bank Ltd. Established in 1937 A.D. was first Nepalese Bank.

Banking institutions have then changed in character and contents to further extent. They have developed from a few simple operations involving satisfaction of a few individual's want to the complicated mechanism of modern banking involving the satisfaction of the whole community by serving speedy application of capital, slowly seeking employment and thus providing the very lifeblood of commerce.

## ➤ **HISTORY OF BANKING IN NEPAL**

Banking services is the oldest service industry in Nepal. It has gone through various stage of evolution and development since the vedic times through the modern banking institution has a very recent origin in Nepal, some crude bank operations were in practice even in the ancient times. In the Nepalese chronicles, it was recorded that the new era known as Nepal Sambat was introduced by Sankhadhar, a sudra merchant of kantipur in 879 or 880 A.D. after having paid all the outstanding debts in the country. This shows the basis of money lending practice in ancient Nepal. Towards the end of eighth century, Gunkam Dev had borrowed to rebuild the Kathmandu valley.

In the 11<sup>th</sup> century, during Malla regime, there was an evidence of professional moneylender and bankers. It was further believed that money-lending business, particularly for financing the foreign trade with Tibet, became quite popular. However, in the absence of any regulatory measure, the unscrupulous moneylenders were known to have charged immoral rates of interest and other extras dues on loans advances. These inconveniences let the Prime Minister Ranodip (1877-1885) to establish 'Tejarath' in

kathmandu, which was government financial institution supplying credit to the people at 5% rate of interest against security of gold, silver, and ornament. The government servants were also entitled to take loan from 'Tejrath', repayable from their salary as the source. During the time of Chandra Samsheer (1901-1929), credit facilities of 'Tejarath' were extended to some other parts of the country by opening its branches. It was believed that the so-called well-to-do persons used to take loans from private moneylenders even at a higher rate of interest than those from the government institutions, for they were not prepared to disclose in public that was likely to affect their prestige. When they were approached by this type of clients, the professional money-lenders used to raise loan in their own names from Tejarath at 5% rate of interest against gold and ornaments, which were not their own but brought to them by their clients as security for the loans to be financed from the funds raised from the 'Tejarath' itself. Thus without any resources of their own and without any risk on their own part, the money-lenders could manage very well to exploit their special type of clients just playing the role of middlemen between their clients and the government's institutions.

To control spurious rates of interest and to curb unfair practice on the part of the unscrupulous moneylenders, legislative measures were also taken. Later 'Tejarath' was replaced by the first commercial bank, Nepal Bank Limited during the time of Juddha Shamsheer in 1937 A.D.

The need to regulate financial and monetary system increased immensely resulting in the establishment of central bank. Nepal Bank Limited was established in 1956 A.D. in order to cater the demand of banking system, Rastriya Banijya Bank was established in 1966 A.D. under 100% government ownership.

In order to provide service to the agriculture sector, Agriculture Development Bank was established in 1968. Two commercial banks i.e. Nepal Bank Limited and Rastriya Banijya Bank both are owned by the government and two development banks in the form of agriculture corporation were serving industrial and agriculture sector under the separate act these institutions.

It was only in 1984 A.D. that Nepal Arab Bank, the first joint venture bank in private sector, was established. It is the pioneer of joint venture banks in Nepal. Thus, making

the history of joint venture bank twenty-two years old. In the last decade, Nepal has gone through tremendous changes in the banking sector.

### ➤ **Concept of Credit Analysis**

Credit analysis is the method by which one calculates the creditworthiness of a business or organization. The audited financial statements of a large company might be analyzed when it issues or has issued bonds. Or, a bank may analyze the financial statements of a small business before making or renewing a commercial loan. The term refers to either case, whether the business is large or small.

Credit analysis involves a wide variety of financial analysis techniques, including ratio and trend analysis as well as the creation of projections and a detailed analysis of cash flows. Credit analysis also includes an examination of collateral and other sources of repayment as well as credit history and management ability. Analysts attempt to predict the probability that a borrower will default on its debts, and also the severity of losses in the event of default. Credit spreads--the difference in interest rates between theoretically "risk-free" investments such as U.S. treasuries or LIBOR and investments that carry some risk of default--reflect credit analysis by financial market participants.

Before approving a commercial loan, a bank will look at all of these factors with the primary emphasis being the cash flow of the borrower. A typical measurement of repayment ability is the debt service coverage ratio. A credit analyst at a bank will measure the cash generated by a business (before interest expense and excluding depreciation and any other non-cash or extraordinary expenses). The debt service coverage ratio divides this cash flow amount by the debt service (both principal and interest payments on all loans) that will be required to be met. Commercial Bankers like to see debt service coverage of at least 120 percent. In other words, the debt service coverage ratio should be 1.2 or higher to show that an extra cushion exists and that the business can afford its debt requirements

Typical education credentials often require a bachelor degree in business (to include an emphasis in accounting, finance or economics). An MBA is not required however is increasingly being held or pursued by analyst, often to become more competitive for

advancement opportunities. Commercial Bankers also undergo intense credit training provided by their Bank or a third-party company. (www.encyclopaedia.com)

### **1.3 PROFILE OF SELECTED BANKS**

#### **➤ HIMALAYAN BANK LIMITED (HBL)**

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cutthroat competition in the Nepalese banking sector, HBL has been able to maintain a lead in the primary banking activities- Loans and Deposits.

Legacy of Himalayan lives on in an institution that is known throughout Nepal for its innovative approaches to merchandising and customer service. Product such as Premium Saving Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMS and Tele-banking were first introduced by HBL. Other financial institutions in the country have been following lead by introducing similar products and services. Therefore, HBL stand for the innovations that bring about in this country to help our customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under our credit standing with foreign correspondent banks, HBL believe obviously lead the banking sector of Nepal. The most recent rating of HBL by Banker's Alamance as country's number 1 bank easily confirms claim.

All branches of HBL are integrated into Glob us (developed by Temenos), the single banking software where the bank has made substantial investments. This has helped the bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the customers and other stakeholder of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, consumer finance through credit card, and online TOEFL, SAT ,IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese worker aboard and their need for formal money

transfer channel, HBL has developed exclusive and proprietary online money transfer software-HimalRemit TM. By deputing own staff with technical tie-ups with local exchange house and banks, in the Middle East and Gulf region, HBL is the biggest inward remittance-handling bank in Nepal. All this only reflects that HBL has an outside-in rather than inside-out approach where customers need and wants stand first. The Bank's business philosophy is "The Power to Lead"

Himalayan Bank limited hold of a vision to become a leading bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns to the stakeholders of the Bank.

The bank's mission is to become preferred provider of quality financial services in the country. There are two components in the mission of the bank; Preferred Provider and Quality financial services; therefore, HBL believe that the mission will be accomplished only by satisfying these two important components with the customer at focus. The bank always strives positioning itself in the hearts and minds of the customers.

#### ➤ **KUMARI BANK LIMITED (KBL)**

Kumari Bank Limited, came into existence as the fifteen commercial bank of Nepal by starting its banking operations from chaitra 21, 2057 B.S (April 03, 2001) with an objectives of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs.1,304,935,920.00 of which 70% is contributed from promoters and remaining from public.

Kumari Bank Limited bank has been providing wide-range of modern banking services through 20 points of representations located in various urban and semi urban part of the country, 13 outside and 7 inside in valley. The bank is pioneer of providing some of the latest/lucrative banking services like E Banking and SMS bathe banking services in Nepal. The bank always focus on building sound technology driven internal system to carter the changing needs of the customers that enhance high comfort and value. The adoption of modern glob us Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transaction in any branch regardless of having account with particular branch. Similarly



the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, utility bill payment services, inward and outward remittance services, and various other banking services.

Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 21 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has added convenience to the customers.

The bank has been able to get recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, corporate governance and total quality management as the organizational mission.

The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various parts of the country by offering modern and competitive banking products and services in their doorstep. The bank always prioritizes of the valued customers. The Bank's business philosophy is "We do it"

#### **1.4 STATEMENT OF THE PROBLEM**

Due to globalization and liberalization of economy, the number of commercial banks is increasing in Nepal. However, subsequent development of commercial banks in terms of quality is not satisfactory. The commercial banks are not interested in granting loan to the priority and deprived sectors of the economy. Banking is not being easily accessible to public in remote and village areas. Commercial banks have concentrated their operation mainly in urban cities.

The main function of the commercial bank is loan disbursement and deposit collection. It is a very challenging task on the part of the bank because the bank has to disburse loan in the appropriate sector and recover it in time as well. In this competitive environment, it is very difficult to choose right and productive sector for granting loan. Hence, there is the chance of flowing bank's deposit in unproductive sector. So, unsecured loan and investment to unproductive sectors increase the risk of bank collapse and may cause the liquidation of the banks.

## **1.5 OBJECTIVE OF THE STUDY**

The main objective of the study is to analyze and compare various variables associated with lending between KBL and HBL. More specifically, the objectives of the study are given below:

- ) To analyze and compare Assets/liabilities management ratio, activity ratio and profitability ratio
- ) To analyze and compare lending strength on the basis of loan loss provisioning, non-performing loan and interest suspense.
- ) To analyze and compare profitability ratio on the basis of ROE and EPS.
- ) To provide suggestions on the basis of major findings

## **1.6 LIMITATION OF THE STUDY**

This study is doing for the partial fulfillment of M.B.S degree in management. Therefore, this study has certain limitation and constraints that are given below:

- ) This study concentrates only on those factors that are related with lending.
- ) The study is based on the available secondary data.
- ) The study has covered recent six fiscal years starting from 2061/2062 to 2066/2067 (2004/05 to 2009/2010).
- ) The study has taken only two out of twenty-six commercial banks as sample data.
- ) Some of the statistical as well as financing tool of comparison and analysis used in the study may have some drawbacks and weaknesses, which may adversely affect the outcome of the study.

## **1.7 ORGANIZATION OF THE STUDY**

This study has been divided into five chapters as follows:-

### **Chapter-1 Introduction:**

The first chapter is the introduction, which consists of background of the study, profile of concerned banks, statement of the problem, objective of the study, limitation of the study and finally organization of the study.

## **Chapter-II Review of the Literature:**

The second chapter focuses on review of literature. It contains the conceptual framework and past research literature on lending practices of commercial banks.

## **Chapter-III Research Methodology:**

The third chapter deals with research methodology to be adopted for the study consisting research design, source of data, data gathering procedure, population and sample, research variables and data processing procedures.

## **Chapter-IV Data Presentation and Analysis:**

The fourth chapter deals with presentation, analysis and interpretation of data. It consist the analysis of primary as well as secondary data and major finding of the research. This is a most important part of the study.

## **Chapter-V Summary, Conclusion and Recommendations:**

The fifth chapter presents summary, conclusion and recommendations of the study.

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

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

Many researchers have conducted their research on the field of banking epically on their financial performance, lending procedure, lending policy, investment policy, etc. Some of these relevant studies have been review below.

#### **2.1 Conceptual/ Theoretical Review**

##### **2.1.1 Commercial Bank- Concept and Function**

Early banking system served mainly as depositor for funds, while the more modern system has considered the supply of credit for their purpose. A bank not accepts money on deposits, but it also lends money, creates, and lends its own credit. Crothers has defined a bank as "a dealer in debts-his own and of other people." Sayers states "we can define bank as an institution whose debts (bank deposits) are widely accepted in settlement of other people's debt to each other.

Commercial Bank Act 2031 B.S has defined that "commercial bank means a bank which operates currency exchanges transactions, accept deposits, provides loan, and perform dealing relating to commerce except bank which have specified for the co-operative, agricultural, industry of similar other specific objective." Basic source of funds for

Commercial banks are capital, reserve and various types of deposits. Basic uses of funds are loan, advances, and investments (Commercial Bank Act, 2031B.S.).

The class of financial institutions called commercial banks has one important characteristic that distinguishes it from all other kinds of financial institutions. This important distinction is that it alone can hold deposits to be drawn upon by cheques. It has the power to create and destroy money, within limits with loans and demand deposit. Commercial banks lend money by creating demand deposits and retire loans by canceling demand deposits.

The two essential functions of commercial banks may best summarize as the borrowing and lending of money. That borrows money by taking all kinds of deposits.

Of course, one of the primary functions of development in banking is deposits mobilization. Without deposits coming as they do from the public and the saver, banks will not have the resources to lend. With adequate resources, lending can have a wider average to meet the credit needs of all the sectors of the economy. Deposits and credits operation always go together and each interconnected. Unless there are advances, deposits cannot rise.

Bank credit means loans and advances granted by the bank and creation of credit refers to the capacity of the bank to expand its loans and advances. Every loan makes a deposit. Hence, creation of credit also means expansion of deposit. We have explained a close analysis of the mechanism of banking will show that a bank can create assets such as loans and advances, investments, bills discounted, etc. out of nothing. In other words, with a small amount of cash, the bank can buy assets worth a lot more (Shrestha, Balkrishna ,1998).

The main business of banking consists of providing credit to manufactures, traders engaged in inland business and export and import business in to form of loan and credit. For lending, eyes and ears are important. For a purposeful and objective lending for social and economic causes, the inward eye is most important. Head alone was being considered important in old method of banking whereas heart is more important in the modern social banking (Vaidya, Shakespeare, 2000).

The term "Commercial" Bank is a holdover from an earlier period when banks were predominately short-term financiers of goods in transit and inventories of trades and merchants. Now, when their lending is no longer confined to short-term commercial loans only, their name is not accurately descriptive of their nature and functions. It may rather be misleading. Today these so-called commercial banks have diversified their activities to a point where they may be referred to as "department stores of finance". They perform not just one but many types of function, some of which are duplicated by financial institutions: holding time and saving deposits, making loans (including business, mortgage and consumer short and long-term loans), operating trust departments, underwriting shares and securities, holding custody of valuables, acting as brokers, operating safe-deposit vaults, and performing many other services (Van Horne James C., 1997).

Commercial banks are 'financial intermediaries' for they borrow from those who are not immediately spending all their current receipts and they lend to those who have intention of immediately spending on goods behind the range of their own current receipts.

Commercial banks are organized on a joint stock company system, primarily for the purpose of earning a profit. They can either be of the branches banking type with a large network of branches or have the unit banking type. Although the commercial banks attract deposit of all kind current, saving and fixed their recourse are chiefly drawn from current deposits, which are repayable on demand. So, they specialize in satisfying the short term credit needs of business rather than the long term.

According to definition of commercial bank, there are some functions of commercial banks, which are operated by such banks. Beginning with simple functions of accepting deposits for making loans, commercial banking has progressively assumed wider function and greater responsibilities in the economic area. It may not be possible to give an exhaustive account all its functions and services. However, some of the fundamental functions usually discharged by a commercial bank are indicated as follows:-

**Money creation:-** The most distinctive function of commercial banks is creation and destruction of money because demand deposits serve as money in the community. Demand deposits can be created in two ways: - by converting cash into a deposit either with the bank or by borrowing from the bank and lending, the same amount with the bank

as a demand deposit. The latter form of deposit is most popular and provides the main channel through which banks create credit. The commercial banks create and destroy the community's money supply in the form of demand deposit through variations in their earning assets or debt instruments. When they acquire earning assets or debt instruments, they credit the demand deposit account of those selling or transferring these assets to them. In addition, when banks reduce their holding of such assets (i.e. sell them) demand deposits are decreased to that extent. Hence, banks are generally responsible for most of the function in the money supply in a country.

**Receiving deposit from public:** - The most important function of commercial bank is to attract deposits from the public. The bank, to throw its net as wide as possible in order to have a rich game, has to maintain a variety of accounts that may suit the needs and tastes of large body of saving bank deposits. Fixed deposits are those deposits, which are withdrawn able only after a specified period. Longer the period of deposit, the higher the rate of interest. Fixed deposits are also known as time liabilities of the bank. Depositors can withdraw cash from current deposits at any time within banking hours. These are demand liabilities of the bank. As a rule, the bank does not pay any interest on these deposits. Generally banks offer minimal interest rate on saving deposits. A bank collects its fund mainly through its deposits. It pools the scattered saving of the community and thus serves as the reservoir of the community's saving.

**Making loan and advances:-** The other major function of commercial bank is to make loans and advances to businessmen, traders and others against documents of title to goods, collaterals and marketable securities. A bank makes advances in different ways. Money at call comprises such loans, which are given for very periods. These are repayable at call or a short notice of a fortnight or less. Overdraft facilities allowed to the bank's customer to overdraw their current accounts up to an agreed limit, to tide over temporary financial difficulties. Discounting a bill of exchange is the most popular method of lending by bank. The bank may advance direct loan against some collateral securities to traders, producers, and businesspersons to drive the wheels of industry and float the vessels of commerce.

**General utility services:-** A commercial bank performs certain general utility services, such as issuing of bank drafts and travelers cheques, issuing non-funded liabilities like

letter of credit and guarantee to its customer's, serving as referee to the financial standing and creditworthiness of its customer, dealing in foreign trade by accepting of collecting foreign bills of exchange, providing safety vaults or locker for the custody of valuables and securities of customers, underwriting loans to be raised by public bodies and corporations, acting as a trustee and executing the will of the deceased, computing statistics and information relating to trade, commerce and industry etc.

**Agency services:** – A commercial bank performs certain functions as an agent for and behalf of its customers. Some of these functions are related to Collection and payment of promissory notes, cheques, bills and other commercial instrument, interest, dividends, subscriptions, rents or other periodical receipts and payment like insurance premium, remitting of funds on behalf of customers by drafts or mail or telegraphic transfers, buying and selling of shares, bonds, securities, etc. on behalf of its customers, acting as correspondent, agent or representative of its clients. All these function are described by agency services.

Thus, commercial banks render valuable services to the community. A country with developed banking system has a secure foundation of industrial and economic progress. So, as a whole bank have to play a critical development role in making their funds available to the priority sectors.

### **2.1.2 Lending and Lending Criteria**

Generally, loan defined as a sum of money distributed to needy people. Likewise, debt means a sum of money owed to somebody. However, in financial terms loans or debt means principal or interest availed to be borrowers against the security. Debt means the bank owes or will lend to individual or person.

Further debt means "principal and interest" provided to debtor by banks and financial institutions, with the pledge of immovable or movable property or other securities or guarantee or without guarantee and the word also means over dues of the transaction beyond balance or fees, commission and interest incurred in that relation.



The supreme court of India defined the debt during the decision of the case United Bank of India vs. DRT (1999 ISJ Banking). Sudhir Gupta stated that 'in the case in hand there cannot be any dispute that the expression 'debt' has to be given the widest amplitude to mean any liability which is alleged as dues from any person by a bank during the course of any business activities undertaken by the bank either in cash or otherwise, whether secured or unsecured, whether payable under a decree or order of any court or otherwise and legally recoverable on the date of the application.

Lending is the essence of commercial banking; consequently, the formulation and implementation of sound lending policies is among the most important responsibilities of directors and management. Well-conceived lending policies and careful lending practices are essential if a bank is to perform its credit creating function effectively and minimize the risk inherent in any extension of credit.

Lending is one of the most important functions of commercial bank. Lending in finance is the term used to denote transactions involving the transfer of money or other property on promise of repayment, usually at a fixed future date. The person who deposit money in the bank they becomes creditors and the person who borrows money from the bank they becomes debtor of the bank. The principal function of credit is first to transfer property in the name of bank, which want to take loan. The transfer is temporary made for a loan price and interest. In present context, lending money has become one of main sources of revenue to the bank. It plays an intermediary in channeling funds from lenders-savers to borrower's spenders. The quality of loan, quality of borrower and quality of securities determine the health of any banker. At the time of providing loan bank should follow some principles and practices. No banker would give loan, unless he has sufficient confidence in the borrower that will not be necessary to seek the help of court for recovery. Safety of funds purpose of loan, security for loan, profitability, spread of loan portfolio and compliance with national interest are some of the principles that banker should follow while granting loan. Besides that the character of person receiving credit, the capacity of borrower to utilize the fund, the percentage of borrowers stake in the business are the basic elements, which measure the quality of borrower and ultimately the quality of loan. "The classical economic functions of bank and other financial intermediaries all over the world have remained virtually unchanged in modern times.

What have been changed are the intuitional structure, the instruments and the techniques used in performing these functions.

There is practice of analyzing 7C's of credit about borrower by the bank before approving proposal:

➤ Character:

Character refers to personal traits such as ethics, honesty, integrity, reliability of borrower's, which is significant for lending decision. The actual purpose, trustworthiness in answering the queries, responsibility and seriousness in making efforts to repay loan is observed by the bank.

➤ Capacity:

The bank views two aspects. Firstly, the bank sees whether the applicant possess legal capacity to borrow loan. Secondly, whether the applicant has capacity to generate sufficient income to repay the loan amount or not. If the borrower has high capacity, quality management and good market value then the capacity of the client is said to be high and bank grants loan on that basis. Hence, suitable ratios (liquidity, leverage, profitability, efficiency) are analyzed based on historical and projected financials.

➤ Capital:

Capital refers to net worth of the borrower. Leverage ratio will be high if the borrower has low capital. A bank gives loan only when it finds leverage ratio acceptable to it or if the borrower has enough capital.

➤ Collateral:

To safeguard its risky assets in case of default, bank asks for securities or collateral from the borrower, no matter how prosper the financial position of the borrower. Collateral can be fixed in nature- land, building, machinery or working capital like inventories and account receivables.

➤ **Condition:**

Condition refers to the general economic condition beyond the control of borrower such as security, political and other social condition affects the business. Loan is given to the borrower if lending official feels general condition is favorable for that type of business.

➤ **Cash Flow:**

The credit officials usually check the cash flow of the business to ascertain re-payment of the loan amount taken with interest. If the figure shows positive response then they advance loan to such clients.

➤ **Credit Information:**

The bank should confirm the type of loan the borrower requires and should provide all the credit information beforehand.

## **2.2 Principles of Good Lending**

Needless to say, lending is the major income generating activity of any bank and it is also one of the main functions of the commercial banks. Even though, commercial banks just goes on giving out loan to anyone and any institution for income generating purpose but if loans are not distributed properly and cautiously then it may be the main cause of the failure of the banks. In case loans were advanced carelessly and the borrowers fail to pay out their debts, banks and these like of bad loans interrupt the flow. Thus, it should be well analyzed before hand to give out and loans. Below given are the factors whereupon any prospect loan should be analyzed.

The bank should insure that the money lend by them goes to the right type of borrower and is utilized in such a way that it will not obey be sage at the time of lending but will remain so throughout, and after serving a useful purpose in the trade of industry where it is employed, is repaid with interest.

Beside safety factor it is also necessary that the money lend out must be repaid in accordance with agreed terms of repayment. In order to achieve this borrower must have reliable sources of sufficient income.

Commercial banks should generate sufficient income to cover the expenses. Such expenses are interest expenses on deposits, staff expenses, office operating expenses, provision for depreciation on their fixed assets, provision of bad and doubtful debts, to pay bonus for staff, income tax to government and of course dividend to its shareholders and plough back return to expand its business volume. Considering these costs, joint venture should decide upon lending rates. The purpose of lending should be productive so that money not only remains safe but also provides a definite source of repayment.

Diversification of lending is another important principle of good lending. An element of risk is always present in every advance however secure it might appear to be. In fact, the entire lending business is one of the taking calculated risks and a successful financier is an expert in assessing such risk. Thus, company should diversify its lending program in various sectors of economy, business and industry and geographical areas.

Even if an advance satisfies all the foreside principles, it may still not be suitable. The lending program may run counter to national interest. Central bank may have issued directive-prohibiting finance companies to allow particular types of advance.

Mobilization of funds collected from deposits is very important. Inability of doing so is a total loss to the banks. Giving out loans and advances is one of the main and very crucial segments, where the collected funds are invested. Being more practical, the positions and status of joint venture are read via loans and advances it has mobilized. However, a profound thought highlight that only giving out loans and advances to the maximum extend is not only important thing. The more crucial part is the recovery of such invested funds.

All the invested time and foes is in vain, if joint venture fails to recover what they had invested in loans and advances. The money mobilized in loans and advances is borrowed from public via deposits, which are liability of the company. Besides, interest form Loans and Advances is one of the main sources of income of joint venture banks. If the failure of the bank is not able to recover its loans and advances, it is a failure of the bank. Thus, banks pay special attention in the recovery part.

The commercial bank should regularly watch the repayment of each loan it has mobilized. It should be best tried that none of the borrowers miss their single scheduled repayment. Reminding each borrowers prior about the upcoming due date should be made the regular function continues as sending reminder letter at different time inversely as the requirement, as according to the regulation of the bank. This is very crucial section and thus, it should be well observed and inspected. The bank should try all possible legal technique to collect the repayment.

In case the borrowers, defying the company's schedules, do not pay due installments, the bank can use the least weapons of recovering its investment via liquidity of the security against which, the loan was mobilized. Thus, bank should collect quality security. The bank must not supply loan without taking any collateral or other necessary securities and guarantees acceptable to it.

### **2.3 Review of Relevant Directives**

Nepal Rastra Bank is the leader of money market. It is the chief of all the banks operating in the country. Funds used by banks for the purposed of advancing loans and leased assets are that of public. Banks collects deposits from public and it is very same fund that banks use to make profit and give back to the public. Thus, to prevent these public funds miss-utilized and to protect the savings of public, NRB has given directives to perform all other job of all banks. NRB issues directive from time to time to enhance the strength of the commercial banks. The main objective of the directives is to control and monitor the commercial banks of the country. It supervises, regulates and controls the functions of commercial banks and other financial institutions. The following are some loan related directives, which are reviewed here.

#### **2.3.1 Regulation Relating to Loan Classification and Loan Loss provisioning**

(Nepal Rastra Bank, "Based on Directives No 2(As amended by circular No 71/058: dated 2058/59).

Commercial banks are regulated than its non-bank competitors in the financial service industry. They subject to follow the updated regulations issued by the regulation authority. As my topic is solely devoted to the lending practices review is just based on

the recent regulation relating to the credits that are issued by the Nepal Rastra Bank, The regulation authority of Nepal.

As per directives issued by NRB dated 2058.5.29, Loans and advance shall be classified into the following 4 categories.

➤ Pass

Loans and advances whose principal amount are not past due and past due for a period up to 3 months shall be included in this category. Those are classified and defined as performing loans.

➤ Sub Standard

All loans and advances that are past due for a period of 3 months to 6 months shall be included in this category. Those are classified as non-performing loans.

➤ Doubtful

All loans and advances, which are past due for period of six month to one year, shall be included in this category. Those are classified as non-performing Loans.

➤ Loss

All loans and advances which are past due for a period of more than 1 year as well as advance which have at least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future has be included in this category. Those loans and advances are also classified and defined as non-performing loans. Banks shall classify the loans every quarter and send the details for the same in the specified format within one month from the end of each quarter to Nepal Rastra Bank.

Additional arrangement in respect of loss loan

Even if the loan is not past due loan having any or all of the following discrepancies shall be classified as loss

- No security at all or security that is not in accordance with the borrower's agreement with bank.
- The borrower has been declared bankrupt.
- The borrower is absconding or cannot be found.
- Purchased or discounted bill are not realized within 90 days from the due date.
- The credit has not been used for the purchase originally intended.
- Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation.
- Loan provided to the borrowers included in the blacklist and where the credit information bureau blacklist the borrower.

As per directives, loans and advances are required as per the following timetable in four phrases.

Table 2.1  
Regulation Relating to Loan Classification

Classification	For FY 2058/59	For FY 2059/60	For FY 2060/61	For FY 2061/62 till date
Pass	Loans not past due and past due up 3 months	Loans not past due and past due up 3 months	Loans not past due and past due up 3 months	Loans not past due and past due up 3 months
Sub-standard	Loans and advances past due for a period of over 3 month to 1 year	Loans and advances past due for a period of over 3 month to 1 year	Loans and advance past due for a period of over 3 month to 9 month	Loans and advance past due for a period of over 3 month to 6 month
Doubtful	Loans and advances past due for a period of over 1 year to 3 years	Loans and advance past due for a period of over 1 year to 3 years	Loans and advance past due for a period of over 9 months to 2 years	Loans and advance past due for a period of over 6 month to 1 years
Loss	Loans and advances past due for a period of over 3 year	Loans and advance past due for a period of over 3 year	Loans and advance past due for a period of over 2 year	Loans and advance past due for a period of over 1 year

(Source: NRB Unified Directives)

#### Loan Loss provision

On the basis of outstanding loans and advances and bill purchase classified as per directives shall be provided as follows:

Table 2.2  
Loan Loss provision

Classification of loans	Loan Loss provision
Pass	1 Percent
Sub standard	25 Percent
Doubtful	50 Percent
Loss	100 Percent

(Source: NRB Unified Directives)

In the directive given by the NRB, loan and advances are initially categorized as performing loan and non-performing loan. Pass loan and advances are defined as performing loan whereas substandard, doubtful and bad loan are defined as non-performing loan. Loan cases like loan granted to the project which is not presently working, miss utilization of loans whose loans has run away are also treated as bad loan and classified as non-performing loan even if they are within the dues dates. For the general outlook on loan policy of banks are given below:

1. If any installment is due for more than one year, than the whole amount of loan is categorized as bad loan and 100% loan loss provision is to be made.
2. Regarding loan term project financing; only the principle dues are categorized but if 25% or more of the total loan amount of these long-term project are due, the whole balance amount categorized under loan categorization and loan loss provision is made.
3. Banks can categorize its loans against its own fixed deposit receipts as pass loan or good loan and loss provision is made.
4. No loan loss provision is to be made for the loan against HMG treasury bills and NRB securities.

Bank can reschedule and restructures non-performing loan by analyzing the external/internal reasons. Insured priority sector credit and deprived sector credit will have to be provisioned at 25% of the provision percentage to loan loss.



### 2.3.2 Directive Relating to the Single Borrower

"Provision for single obligor limit as per NRB Directives, bank should classified into fund-based loan (overdraft, trust receipt, term loan, auto loan, bills purchase etc.) and non-fund loan (letter of credit, Guarantees, commitments etc.). The NRB has brought following limit."

Table 2.3

#### Directive Relating to the Single Borrower

Facility	Total Exposure
Fund based	25% of core capital
Non-fund based	50% of core capital

(Source: NRB Unified Directives)

Banks should not maintain above limit, when loan provider under guarantees of fixed receipts, bank deposits, government securities, NRB debentures and A<sup>+</sup> rated national and international banks.

Bank need to be provisioned additional capital charge under six months, in case banks provide loans and advances out of limit.

### 2.3.3 Review of Articles

Under these heading, effort has been made to examine and review some of the related articles published in different economic journals, bulletins, magazines and newspapers.

**Atma Shrestha (2003)**, in an article "*Entrepreneur-Friendly Credit Policy*" published in Business Age has reviewed the present credit policy with main focus of the credit decision being based on the collateral. He argues that only collateral should not be considered as the basis of the credit decision.

**Bhasker Sharma (2002)**, in his article "*Banking the further of competition*" has said due to the lack of investment avenues, banks are tempted to invest proper credit appraisal and one personal guarantee, whose negative side effects would show colors after 4 to 5 years.

Again he said that “private CBs have mushroomed only in urban areas where banking transaction in large volume is possible. The rural and sub urban areas mostly remain unattended to. This is likely to prevail till competition tasks its full region in the urban areas.

**Pradhan (2003)**, in his article “*Deposit Mobilization, its Problem and Prospects*” has presented that deposit is the life blood of every financial institution like commercial bank, finance company and co-operative or non government organization. He further adds in consideration of the most of the banks and finance companies, the latest figure dopes produce a strong feeling that serious review must be made of the problem and prospectus of deposit sector. Leaving few joint venture banks, other organization rely heavily, on the business deposit and credit disbursement.

The writer has highlighted following problems of deposit mobilization in Nepalese context.

- ) Most of the people do not go for saving in an institutional manner, due to the lack of good knowledge. However, they are very much used of saving be it in the form of cash or ornaments. Their reluctance to deal with institutional system is governed by the lower level of understanding about financial organization process, withdrawn system, and availability deposing facilities and so on.
- ) Unavailability of the institutional services in rural areas.
- ) Due to lesser office hours of banking system people prefers holding and cash in the personal possession.
- ) No more mobilization and improvement of the employment of deposit and loan sectors.

The writer has also recommended for the prosperity of deposit mobilization which are as follows.

- ) By providing sufficient institutional services in the rural areas.
- ) By cultivation the habit of using rural banking unit.
- ) By adding services hour system to bank.
- ) NRB could also organize training programs to develop skilled manpower.

J By spreading co-operative to the rural areas for developing of mini branch services to these backwards areas.

**Subash Rawal, (2003)**, in the article, "*Banking sector's NPA alarming*" states that non-performing assets in banking sector that currently stands at 30%. The total NPA in the banking system is about 35 billion, while it is even worse in case of two largest commercial banks- Rastriya Banijya Bank and Nepal bank Limited. The NPA levels at the state run RBB stand at 52%, while the figure at NBL reads 62%, which together account for 37% of total deposit of some Rs.200 billion and 40% of the total loan outstanding of Rs.125 billion of the banking system. Private sector bank has less non-performing assets in comparison to RBB and NBL.

**Thapa (2003)**, in his article, "*Deposit mobilization in commercial bank*" has presented his view that the commercial banks including foreign joint venture banks seem to be doing pretty well mobilizing deposit. Likewise, loan and advances, of these banks are also increasing but compared to the high credit needs particularly by the newly emerging industries, the banks still seem to lack adequate funds. The banks are increasing their lending to non traditional sectors along with traditional sectors.

Nepal bank Ltd. and Rastriya Banijya Bank Ltd. are operating nominal profit, the later turning towards negative from time to time. Because of non recovery of accrued interest, the margin between interest income and interest expenses is declining. Because of these two local banks, in traditional balance sheet operations these banks have not been able to increase their income from commission and discount. On the contrary, they have heavy burden of personnel and administrative overheads. Similarly due to huge amount of accumulated overdue and defaulting loans, profit position of these banks has been seriously affected.

On the other hand, the foreign joint venture banks have been functioning in an extremely efficient way. They are making huge profit year and have been distributing large amount of bonus to employees and dividends to the shareholders. Because of their effective persuasion for loan recovery overdue and defaulting loans have been limited resulting in high margins between interest income and interest expense. Similarly, concentration of

these bank to modern off balance sheet operations and efficient personal management has added to the maximization of their profit.

**Bank and Financial Institutions Act (2063)**, states that Government of Nepal has promulgated Bank and Financial Institutions Act 2063 to replace several existing laws related to the banks and financial institution like Commercial Bank Act 2031, Finance Act etc related to financial institutions. The major highlights of the Act 2063 are universal banking that makes all the banks and financial institutions governed by a single act making the legal process much efficient and with less confusion and it have protected the rights and welfare of the depositors and investors.

However this act has lots of unclear issues, which has created confusion to the existing banks and financial institutions. The act has classified the financial institutions into categories replacing the present terms as commercial, development of finance companies. The act has classified the category, as “Ka” category can mention itself as a Bank, the rest of the category should name itself only as a financial institution. The act has created confusion to the existing development banks and finance companies as what category they belong to? The positive aspect of this act is that the financial institutions which fall under the “Kha” category will also be allowed to carry out several financial activities that were previously allowed to only commercial banks, such as opening current accounts, issuing drafts and traveler’s cheques, dealing in foreign exchange and issuing Letter of Credits. Even the financial institutions, which falls under the category “Ga” are permitted to handle current account, saving account and to some extent, foreign currency transactions. Due to these changes, the consumer will benefit due to the competition among these banks and financial institutions.

#### **2.3.4 Review of Previous Thesis**

For the purpose of this study, the similar and suitable thesis, which is concerned with lending practices and leading policy of commercial banks are taken. Some of them are as follows:-

**Lila Prasad Oja (2002)** has conducted a research on, “*Lending Practices: A Study of Nabil Bank Limited, Standard Chartered Bank and Himalayan Bank Limited*”

His research objectives of the study are as follows:

- To determine the liquidity position, the impact of deposit in liquidity and its effect on lending practices.
- To measure the banks lending strength. The lending strength shall be measured in absolute measures also to analyze the volume of contribution made by each bank in lending.
- To analyze the portfolio behavior of lending and measuring the ratio and volume of loans and advances made in agriculture, priority and productive sector.
- To measure the lending performance in quality, efficiency and its contribution in total income.
- To measure the growth rate and propensity of growth based on trend analysis.

Based on the above objectives of the study, his research findings of the study are as follows:

The measurement of the study revealed that the mean current ratio of all three banks is not widely varied. All the banks are capable in discharging their current liability by current assets. The ratio of liquid fund to current and total deposits has some degree of deviation among the banks as compare to current ratio. Cash and bank balance to interest sensitive liability has measured the liquidity risk arising from fluctuation of interest rate in the market. The measurement of lending strength in relative term has revealed that the total liability to total assets of SCBNL has the highest ratio. The steady and high volume of loans and advances throughout the years has resulted Nabil Bank Limited’s ratio to be the highest. Nabil Bank Ltd. has deployed the highest proportion of its total deposits in earning activities and this ratio is significantly above the ratios of other two banks. This is the indicative of that in fund mobilizing activities Nabil Bank Limited is significantly better than SCBNL.

**Khadka (2002)**, in his thesis "*A study on the investment policy of Nepal Arab Bank Ltd. in comparison to other joint Venture Banks of Nepal*" has compared investment policy of NABL with NGBL and SBI. Mr Khadka has found out that the liquidity position of

NABL is comparatively worse than that of Nepal Grindlays Bank Ltd. (NGBL) and Nepal Indo-Suez Bank Ltd (SBI). It is also comparatively less successful in on-balance sheet utilization as well as off-balance sheet operation than that of NGBL and SBI. In case of profitability ratio, he has concluded that the profitability position of NABL is comparatively not better than that of other joint Venture banks (JVBs). NABL is more successful in deposit utilization but fails to maintain high growth rate of profit in comparison with NGBL and SBI.

He has recommended that NABL bank should increase cash and bank balance to meet loan demand. NABL's loan and advances to total deposits ratios are lower than that of other JVB's to overcome this situation, NABL is strongly recommended to follow liberal lending policy and invest more and more percentage amount of total deposits in loans and advances.

He further suggests. "The bank must utilize depositor's money as loan and advances to success in comparative banking environment. The largest item of the bank in the assets side is loans and advances. Negligence in administration this assets could be the main cause of a liquidity crisis in the bank and one of the main reasons of bank failure". Lending policy however has not explained regarding liberal lending and invests more and more percentage amount of total deposits in loans and advances. However while adopting liberal policy on lending he has not explained the consequences like bad debt, default loan, which may arise due to very flexible and liberal lending policy. He has also not explained the regarding what is good liberal lending policy.

**Gautam Dhugana (2003)**, has conducted a study "*Lending Practices and Procures of Nepal Bangladesh Bank Limited*" has outlined his major findings as follows.

Not concentrating only in big cities and large groups he has suggested NB bank to expand branches in rural areas. Banks should invest in productive sector, develop the concept of micro financing and group financing should make interest rate lower with applying scientific management techniques. Bank should maintain the balance in its loan portfolio and current requirement of the customers. Banks should give performances to the short term lending. Banks should provide the consortium loan for those projects under

government guarantee and security thereby uplifting the economic condition of the country.

**Niva Shrestha (2004)**, conducted a study on the topic '*A study on non-performing loans and loan loss provisioning of commercial banks*' revealed that SCBNL had risk averse attitude of the management or they have policy of investing low in the risky assets i.e. loans and advances as compared to NBL and NABIL because the loans and advances to total asset ratio of NBL, NABIL & SCBNL during the study period was appeared to be 52.3%, 47.0% and 29.34% respectively. The SCBNL has higher proportion of the investment in risk free or nominally risky asset like treasury bills, National Saving bonds etc.

Similarly, the loans and advances to total deposit ratio of NBL, NABIL and SCBNL during the study period was found to be 57.63%, 56.35% and 35.94% respectively. It indicates that SCBNL has the most consistent and variability during the study period where as the NBL has the higher consistent and variability as comparison to other two banks. NABIL has the moderate level of consistent and variability (Shrestha, 2004).

In the same way, the proportion of non-performing loan with regard to total loans of NBL, NABIL & SCBNL was found to be 48.37%, 10.67% & 4.38% respectively. That means 51.63%, 89.33% & 95.62% of total loan of NBL, NABIL & SCBNL was found to be performing loan. Not only the public sector bank, even private sector bank like NABIL has higher proportion of non-performing loan. However, in recent years NABIL has shown significant decrement in non-performing asset, which are the result of effective bank credit management and its efforts of recovering bad debts through the recovery of establishment of recovery cell (Shrestha, 2004).

In the same way, proportion loan loss provision of NBL was found to be significantly higher (i.e. 40.17%) as compared to other two commercial banks. The proportion of NABIL and SCBNL was found to be 5.69% and 4.49%.

The average ratio of provision held to non-performing loan of NBL, NABIL & SCBNL was found to be 80.03%, 57.85% and 122.32% respectively shows that the SCBNL has maintained adequate level of provision against non-performing loan where as NABIL was

found to be comparatively lower. The NBL was found to be an average position (Shrestha, 2004).

**Rajan Dhital (2006)**, in his thesis "*A comparative study on investment policy of Standard Chartered Bank Limited and Bank of Kathmandu Ltd.*" reveals that the main ratios of cash and bank balance of total deposit ratio SCBNL are lower in comparison to BOKL. SCBNL has better liquidity position than BOKL. The mean ratio of loan and advances to current asset of SCBNL is lower than that of BOKL. SCBNL ratios are less consistency in comparison to BOKL. The mean ratio of loan and advances to total deposit of SCBNL is lower than that of BOKL. The mean ratio of total investment to total deposit of SCBNL is higher in comparison to BOKL and the ratios of SCBNL are less consistency than that of BOKL. In case of loan and advances to working fund ratio, the SCBNL mean ratio is less than that of BOKL. The mean ratio of return on loan and advances of SCBNL is greater than that of BOKL. The ratio of SCBNL is more variability in comparison to BOKL. The mean ratio of return on total interest earned to total outside asset of SCBNL is greater than BOKL. The mean ratio of total interest paid to total working fund of SCBNL is lower in comparison to BOKL. The liquidity risk of SCBNL is less than that of BOKL. The mean ratio of credit risk ratio of SCBNL is less than that of BOKL and SCBNL ratios are less variability in comparison to BOKL.

**Ram Prasad Kafle, (2008)** in his study entitled "*Non-performing loans of Nepalese commercial banks.*"

The researcher's objectives of the study are:

- To know the problems of the non-performing loans and its effect in the ROA and ROE of the Nepalese commercial banks
- To find out whether the Nepalese commercial banks are following the NRB directives regarding loan loss provision for non-performing loan or not.
- To make necessary suggestions and recommendations.

Through the research he has found that the no banks have been following NRB's directives regarding the loan loss provision. He also conclude that the return on assets (ROA) and return on equity (ROE) of the bank deposited upon the NPLs. The high degree of negative correlation between NPL and ROA and the NPL and ROE clearly indicates



that there is inverse relation between them. He has recommended that for the smooth operation of the commercial banks, the NPLs should be controlled for this bank should provide necessary training regarding loan management to the manpower's. In order to remove, the NPLs, banks should take enough collateral so that banks can recover its loan amount. For the loan loss provision as per the NRB directive and to reduce the NPL, the bank management should be effective and the NRB's monitoring and regulation is necessary.

**Rajan Subedi, (2009)** entitled "*A Comparative Study of Financial Performance between Himalayan Bank limited and Everest Bank Limited*" of the period from 2004 to 2009.

The objectives are specified as below:

- To analyze the financial performance of Himalayan Bank Limited & Everest Bank Limited through the use of appropriate financial tools.
- To highlight various aspect relating to financial performance of Himalayan Bank Limited & Everest Bank Limited for five year.
- To perform trend analysis of these selected banks and make a projection of coming year.
- To suggest and recommend both the banks to improve their financial performance.

He has outlined his major finding as follow:

The mean ratio of total loans and Advances to total saving deposit ratio of EBL is greater than that of HBL and the coefficient of variation between the ratios of HBL is less than EBL. It means that the ratio of HBL is less than EBL is more uniform than EBL. According to analysis, it found that EBL is more employing its saving deposit in term of loans and advances than that of HBL. So, loans and advances to total saving deposit ratio appear better in EBL than HBL.

The mean total investment to total deposit ratio of EBL is significantly greater than that of HBL .The variability of the ratios of HBL is more consistent than that of EBL. According to analysis, it if found that EBL is more successful in utilizing its resources an investment.

However, he failed to give his overall conclusion regarding the superiority of the financial performance of these two banks during the period of the study (2000-2005). He has also put several recommendations out of which few important recommendation are outlined here.

The liquidity of a bank many of affected by external as well as internal factors such as the interest ratio, supply and demand position of loans, saving to investment situation, central bank requirements and the growth or slackening tending policies management capability. HBL has maintained the ratio of cash and bank balance to total deposit considerably lower than that of EBL. So, EBL is recommended to increase cash and balance to meet loan demand.

## **2.4 Research Gap**

The purpose of this research is to develop some expertise in one's area, to see what new contribution can be made and to gain some ideas, know ledges and suggestions in relation on lending practices of HBL and KBL. Thus, the previous studies can't be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. There is a certain gap between this present research and previous research. The gap between earlier studies and this study is that it deals with each variable that is related to lending. Therefore, to fulfill this gap, this research is selected. To complete this research work: many books, journals, articles and various published and unpublished dissertations are followed as guideline to make the research easier and smooth. Thus, present study may be valuable piece of research work. Therefore, this study is useful to the concerned bank as well as different persons: such as shareholders, investors, policy makers, stockbrokers, state of government etc.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Research methodology is the way to solve systematically about the research problem. It helps to analyze, examine and interpret various aspects of research work. Research methodology is the process of arriving at the solution of the problem through planned and systematic dealing with collection, analysis and interpretation of facts. Research methodology describes the method and process applied in the entire aspect of the study. It refers to the various sequential steps to be adopted by researcher in studying a problem with certain objects in view.

Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the developments of generalization principles or theories, resulting in prediction and possibly ultimate control of events (John W. Best, 1992).

Research is essentially a systematic inquiry seeking facts through objectives verifiable methods in order to discover the relationship among them and to deduce from them broad principles or laws. It is really a method of critical thinking by defining and redefining problems, formulating hypothesis.

Research in common parlance refers to a search for knowledge. The Webster International Dictionary gives a very inclusive definition of research as "a careful critical inquiry or examination in seeking facts and principles; diligent investigation in order to ascertain something."

Research Methodology depends on the various aspects of the research project. The size of the project, the objective of the project, importance of the project, period of the project, impact of the project in various aspects of the human life etc. are the variables that determine the research methodology of the particular project. In order to accomplish the targeted objective of the study, a definite course of research methodology has been followed. A systematic methodology is considered as inevitable for true, better, fair and

superior consequences. In fact, Research is scientific inquiry about certain phenomenon or object.

A research methodology helps us to find out accuracy, validity and suitability. The justification of present study cannot be obtained without help of proper research methodology. For achieving, the objectives of the study the applied methodology are used.

Research Methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with a certain objective in view. It is way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It includes the various steps that are generally adopted by a researcher in studying his/her research problem along with logic behind them (Kothari C R, 2001). However, the following steps provide a useful procedural guidance so far as research methodology is concerned:

1. Tentative selection of the problem [i.e. topic of research].
2. Initial survey of Literature
3. Defining or selection the research problem
4. Extensive literature survey
5. Design of research project
6. Sample design
7. Collection of data, construction of questionnaires
8. Analysis of data
9. Arriving at generalizations and
10. Preparation of report [i.e. starting or writing down the result] (Kothari,41)

The topic of the thesis has been selected as “Comparative Credit Analysis of HBL and KBL” with tentative objective of highlighting and analyzing the lending of HBL and KBL. The survey of literature has been conducted from various library and references and these have been mentioned in chapter-2. The problem of the study has been specified in the topic "statement of the problem" in chapter-1. The data has been collected in sources of data. The data have been mentioned in chapter-4. The major findings of the analysis

have been mentioned in chapter-4. The summary, conclusion and recommendation have been kept in chapter-5.

Research Methodology describes the methods of process applied in the entire studies. A research study can procedure the fruitful results if an appropriate methodology is taken under consideration to highlight and evaluate the different aspects of the study. To achieve the purpose of the research, the following methodology has been adopted.

### **3.2 Research Design**

The main objective of this research study is to analyze and compare lending practices of the concerned banks (HBL and KBL). It is a framework or plan for study that guides the collection and analysis of data. It is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

Research design is the plan, structure and strategy of investigation conceived to obtain answers to research objectives through analysis of data. The first step of the study is to collect necessary information and data techniques, which guides the study and the ways to do the study. These steps include the selection of a research problem, formulation of hypothesis, interpretation, presentation, report writing and bibliography.

To achieve the stated objective of the study, the study of books, booklets, financial act and other related acts, rules, directives, regulations have been carried out. For an empirical research, opinions from the various officers have been conducted. For this study, analytical and descriptive research design has been followed.

Descriptive research also know as statistical research, describes data and characteristics about the population or phenomenon being studied. Descriptive research answers the questions who, what, where, when and how. Similarly, analytical approach has been applied mainly to examine various related variables.

### **3.3 Period of the Study**

This study is based on six years financial data of HBL and KBL starting from 2061/2062 to 2066/2067 B.S. (2004/05 to 2009/2010).

### **3.4 Source and Use of Data**

Only secondary source of data have been collected in order to achieve the actual data as far as available.

#### **Secondary Data**

Secondary data are the information received from books, journals, newspapers, published reports, various articles and publications dealing in the subject method of the study. The major sources of secondary data are as follows:

1. Academic Books
2. NRB Directives
3. NRB Reports
4. Previous related studies
5. World Wide Web; the internet.

### **3.5 Population and Sample**

The population refers to the organization of the same nature on its services and product in general. There are all together 28 commercial banks functioning in our country at present. Due to the time and resource factor, it is not possible to study all of them regarding the study topic therefore sampling will be done from the population. For this study, only two banks (i.e. HBL and KBL) are taken as sample.

### **3.6 Data Collection Procedure**

The annual reports of respective banks are collected from their respective officers. NRB reports are collected from Research Department of NRB. The numerical data collected from different sources. Data also collected from interview method.

Like the same the internet also proved to be very good sources of data. The sites used are listed below in the bibliography.

### **3.7 Data Analysis Tools**

The following tools analyze the data presented in the study.

#### Financial Tools

Financial analysis is the starting point for making plans before using any sophisticated and budgeting procedure

Analysis and interpretation of financial statements is an attempt to determine the financial performance of any organization so that a forecast may be made of the prospects for future earnings, ability to pay interest, debt maturity and probability of sound dividend policy." Financial statement analysis is largely a study of relationship between among the various financial factors in a business as disclosed by a single set of statement and study of trends of these factors as shown in series of statement."

Through the application of analytical tools, profitability and financial health of a concern is evaluated in a proper, legal and scientific manner. Assets/Liabilities management policy of HBL and KBL has been analyzed by using different Assets/Liabilities ratios. Similarly, activity and profitability of HBL and KBL has been analyzed by using different activity and profitability ratios.

#### Ratio Analysis

This shows the relationship between current assets and current liabilities. Current assets include cash and bank balance, money at call or short notice, loans and advances, investments in govt. securities and other interest receivable and miscellaneous current assets. Similarly, current liabilities include deposits and short-term loan, bills payable, tax provision, staff bonus, dividend payables and miscellaneous current liabilities.

$$\text{CurrentRatio} = \frac{\text{CurrentAssets}}{\text{CurrentLiabilities}}$$

The widely accepted standard of current ratio 2:1 but accurate standard depends on circumstances in case of seasonal business ratio.

As for we concerned about the financial ratio, a ratio between two relevant figures which provide a certain relation, and have negative or positive correlation between then will only be studied. This section has been divided into the following sub-sections.

#### Assets\Liability Management Ratio

Assets\Liability Management Ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensure its effective utilization. The banking business converts the liability into assets by way of is lending and investment function. Assets and liability management ratio measures its efficiency is multiplying various liabilities in performing assets. The following are the various ratios relating to assets liability management used to determine the lending policy of the subjected joint venture banks.

- Loans and Advances to Total Deposit Ratio
- Loans and Advances to Total Assets Ratio
- Loans and Advances to Shareholders Equity Ratio

#### Activity Ratio

Activity ratio measures the performance efficiency of an organization from various angles of its operation. Activity ratio indicates the efficiency of activity of an enterprise to utilize available funds, particularly short-term funds. The following ratios are used in this study to determine the efficiency, quality and contribution of loans and advances in the total profitability.

- Loan Loss provision to Total Loans and Advances Ratio
- Non-performing Loans to Total Loans and Advances Ratio
- Interest Suspense to Total Interest Income from Loans and Advances Ratio
- Interest Income to Interest Expenses Ratio



## Profitability Ratio

Profit is the difference between the revenues and the expenditures over a period. Profit is the main element that makes an organization to survive. Without profit, a firm could not attract outside capital. Profitability includes the present and future earnings capacity. In other hand, the profit measures the management ability regarding how well they have utilized their funds to generate surplus. The given ratios are used to determine the efficiency of the lending its quality and contribution on total profitability.

- Net profit to Shareholders Equity Ratio
- Equity Per Share [EPS]

## Statistical Tools

Statistical methods are the mathematical technique used to facilitate the analysis and interpretation of numerical data secured from groups of individual or group of observation from a single individual. The figure provides detailed description and tabulate as well as analyze data without subjectivity, but only objectivity. The result can be presented in brief and precise languages and complex and complicated problems can be studies in very simple way. It becomes possible to convert abstract problem into figures and complex data on the form of tables.

The various statistical tools used in this study to analyze the collected data are as follows:

### 1. Correlation Analysis

Correlation is the measure of relationship between two or more characteristics of a population or a sample. It simply measures the change between the phenomenon. The correlation coefficient between two variables describes the degree of relationship between those two variables. It measures the increase or decreases in one variable due to increase or decrease in other variables. Simply stated, correlation is a statistical tools with the help of which we can determine whether two or more variables are correlated and if they are correlated, that is the degree and direction of correlation. Correlation analysis describes the relationship between variables i.e. positive and negative. It helps to determine the following:

- A positive or negative relationship exists
- The relationship is significant or insignificant
- Establish cause and effect relation if any

Karl Pearson's method, popularly known as Pearsonian coefficient of correlation is most widely used in practice. The Pearsonian coefficient of correlation is denoted by the symbol of 'r' and is calculated as follows:

$$r_{XY} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{X^2}{N}} \sqrt{Y^2 - \frac{Y^2}{N}}}$$

Where,

N = No. of observation of X and Y

X = Sum of the observation in series X

Y = Sum of the observation in series Y

X<sup>2</sup> = sum of the observation in series X<sup>2</sup>

Y<sup>2</sup> = Sum of the observation in series Y<sup>2</sup>

XY = Sum of the product of the observation in series X and Y

The Karl Pearson coefficient of correlation 'r' always falls between -1 to + 1. The value of correlation in minus denotes the negative correlation and in plus denotes the positive correlation. As the value of correlation coefficient reaches near to the value of zero, it is said that there is no significant relationship between the variables.

## 2. Probable Error

The probable error of the coefficient of correlation helps in interpreting its value. With the help of probable error it is possible to determine the reliability of the value of coefficient in so far it depends on the conditions of random sampling.

The probable error of the coefficient of correlation is obtained as follows:

$$P.E.r = 0.6745 \sqrt{\frac{1 - r^2}{N}}$$

Where

'r' is the coefficient of correlation and N the number of pairs of observation

If the value of r is less than the probable error there is no evidence of correlation, i.e. the value of r is not at all significant.

If the value of r is more than six times the probable error the coefficient of correlation is practically certain, i.e. the value of r is significant.

If the value of correlated coefficient is greater than six times the value of probable Error, the correlation of coefficient is as significant and reliable.

If the value of correlation coefficient is less than the probable error, the correlation coefficient is said to be insignificant and there is no evidence of correlation.

The statistical tool correlation analysis is used in the study to measure the relationship between variables in determining whether the relationship is significant or not.

For the purpose of decision-making interpretation are based on the following terms:

When,  $r=1$ , there is perfect positive correlation.

When,  $r= -1$ , there is perfect negative correlation.

When,  $r= 0$ , there is no correlation.

When, 'r' lies between 0.7 to 0.999(-0.7 to -0.999), there is high degree of positive (or negative) correlation.

When, 'r' lies between 0.5 to 0.6999 there is moderate degree of correlation.

When, 'r' is less than 0.5 there is low degree of correlation.

### 3. Coefficient of Determination ( $r^2$ )

It explains the variation percent derived in dependent variable due to the any one specified variable. It denotes the fact that the independent variable is good predictor of the behavior of the dependent variable. It is square of correlation coefficient.

## **CHAPTER-IV**

### **DATA PRESENTATION AND ANALYSIS**

This chapter deals with the presentation and analysis of data collected from various sources. The main objective of this chapter is to evaluate and analyze the main financial performance, which are mainly related to lending performance of the related banks. To obtain best result, the data have been analyzed according to the research methodology as mentioned in the third chapter.

#### **4.1 Assets\Liability Management Ratio**

It measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensure its effective utilization. The banking business converts the liabilities into assets by way of lending and investment function. Assets and liability management ratio measures its efficiency in multiplying various liabilities in performing assets. The following are the various ratios relating to asset liability management used to determine the lending policy of the commercial banks.

##### **4.1.1 Loans and Advances to Total Assets Ratio**

Loans and advances to total assets ratio reflects the extent to the bank is successful in mobilizing its total assets on loans and advances for income generating. Loans and advances includes total loans and advances and total assets include current assets and fixed assets, investment on shares, miscellaneous assets, loans etc. Unlike traditional “stock based” businesses, bank assets consist of financial assets which include cash and liquid assets, trading securities, investment securities, acceptances of customers and, by far the largest category, gross loans and advances. Note that assets are one side of the balance sheet of banks, the other is liabilities. Current Assets are assets that are considered to be liquidated easily. Cash is considered a current asset because of that reason, it is cash. Anything that can be turned into cash quickly is considered a current asset. Accounts receivable is also a current asset, while a Note Receivable is considered (non) or more appropriately, a "long-term" asset. Fixed assets refer to land and building, equipment, plant and machinery etc.

Table 4.1

Loans and Advances to Total Assets Ratio of HBL

(Rs. in millions)

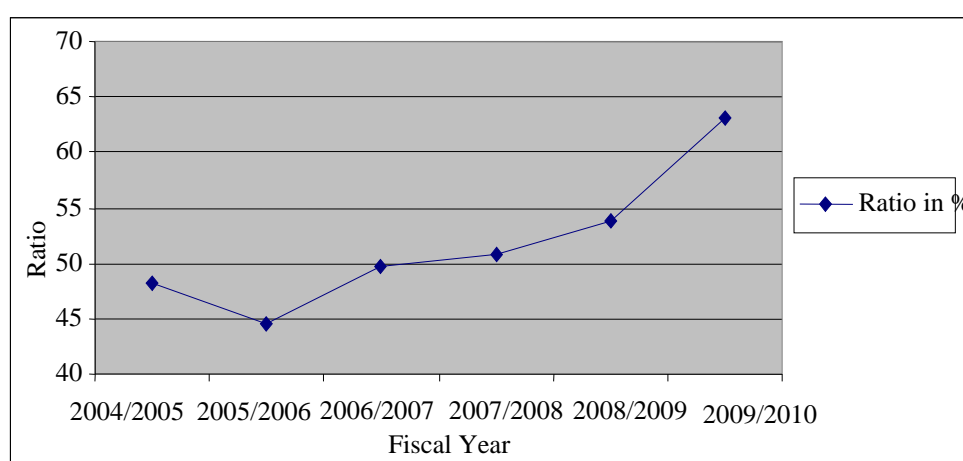
Fiscal Year	Loan and Advance	Total Assets	Ratio in %
2004/2005	11951	24762	48.26
2005/2006	12424	27844	44.62
2006/2007	14642	29460	49.70
2007/2008	16997	33519	50.71
2008/2009	19497	36175	53.90
2009/2010	24793	39320	63.05
Average			51.71

(Source: Annual Reports of HBL)

The above table shows loans and advances to total assets ratio of last six fiscal years of HBL. FY 2009/10 has highest contribution to loans and advances in total assets with 63.05% and lowest in FY 2005/06 with 44.62%. Average ratio of six fiscal years is 51.71%. While comparing it with each fiscal year, it shows that FY 2008/09 and 2009/10 has highest ratio and 2005/06, 2004/05, 2006/07 and 2007/08 has lowest ratio

Figure 4.1

Trend Analysis of Loans and Advances to Total Assets Ratio of HBL



The above trend analysis indicates loans and advances to total assets ratio of HBL for the last six years. It shows that the trend has been gradually increasing from FY 2005/06 to 2009/10 which can be considered as good performance of the bank.

Table 4.2

Loans and Advances to Total Assets Ratio of KBL

Rs. in million

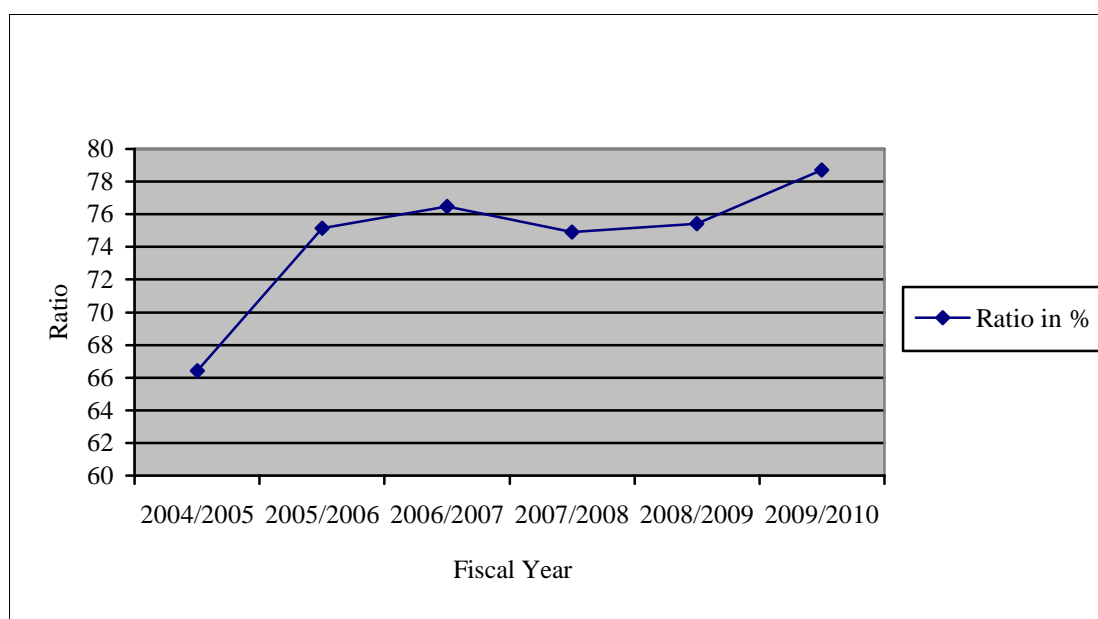
Fiscal Year	Loan and Advance	Total Assets	Ratio in %
2004/2005	3649	5494	66.42
2005/2006	5584	7431	75.14
2006/2007	6892	9010	76.49
2007/2008	8929	11918	74.92
2008/2009	11335	15027	75.43
2009/2010	14594	18539	78.72
Average			74.52

(Source: Annual Reports of KBL)

The above table shows loans and advances to total assets ratio of last six fiscal years of KBL. FY 2009/10 has highest contribution to loans and advances in total assets with 78.72% and lowest in FY 2004/05 with 66.42%. Average ratio of six fiscal years is 74.52%. While comparing it with each fiscal year, it shows that FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 has highest ratio and only 2004/05 lowest ratio.

Figure 4.2

Trend analysis of Loans and Advances to Total Assets Ratio of KBL



The above trend analysis indicates loans and advances to total assets ratio of KBL for the last six years. It shows that the trend was in increasing form.

By comparing the above two tables and diagrams it shows that average ratio of loans and advances to total assets of KBL is higher than HBL. That means KBL has good lending performance than HBL. Similarly, the ratio of HBL is maximum i.e. 63.05% FY 2009/10 and the ratio of KBL is maximum i.e. 78.72% in FY 2009/10.

#### 4.1.2 Loans and Advances to Total Deposits Ratio

This ratio measures the bank ability to mobilize the depositor's fund to earn profit by providing loans and advances. It also measures the extent to which the banks are successful in mobilizing deposits for profit generating. Loans and advances refer to total sum of loans, advances, credit, overdraft local and foreign bills purchased and discounted. Total deposit includes total outside fund or all kind of deposits. A high ratio indicates high efficiency to utilize depositor's fund and low ratio indicates banks in ability to efficiency utilized the depositor's fund.

Table 4.3  
Loans and Advances to Total Deposits Ratio of HBL

Rs. in million

Fiscal Year	Loan and Advance	Total Deposit	Ratio in %
2004/2005	11951	22010	54.30
2005/2006	12424	24814	50.07
2006/2007	14642	26490	55.27
2007/2008	16997	30048	56.57
2008/2009	19497	31842	61.23
2009/2010	24793	34681	71.49
Average			58.15

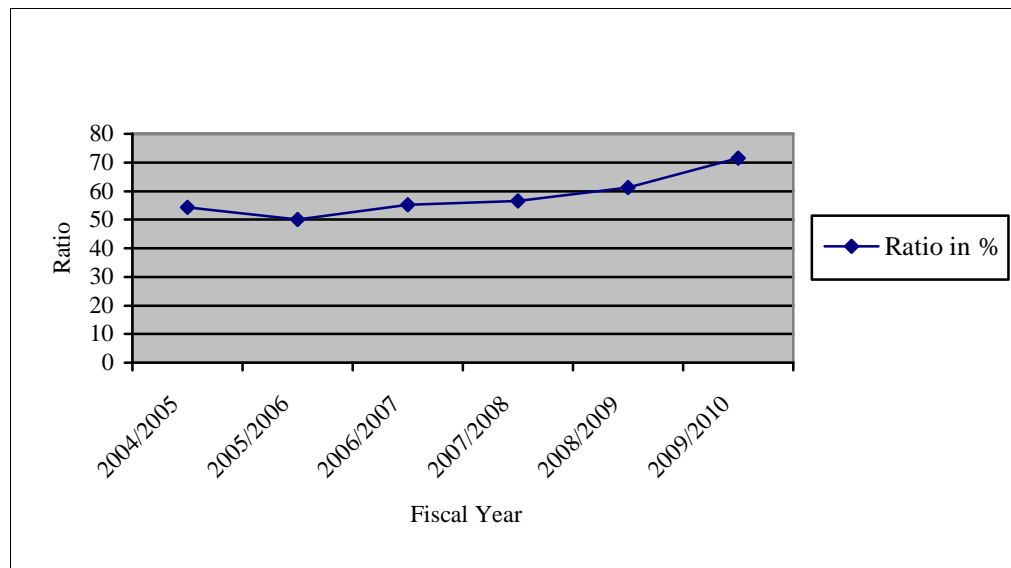
Source: Annual Reports of HBL)

The above table shows loans and advances to total deposits ratio of last six fiscal years of HBL. FY 2009/10 has highest contribution in loans and advances from total deposits with 71.49% and lowest in FY 2005/06 with 50.07%. Average ratio of six fiscal years is

58.15%. While comparing it with each fiscal year, it shows that FY 2009/10 and 2008/09 has highest ratio and 2004/05, 2005/06, 2006/07 and 2007/08 has lowest ratio

Figure 4.3

Trend analysis of Loans and Advances to Total Deposits Ratio of HBL



The above trend analysis indicates loans and advances to total deposits ratio of HBL for the last six years. It shows that the trend was in fluctuating then in increasing trend.

Table 4.4

Loans and Advances to Total Deposit Ratio of KBL

(Rs. in millions)

Fiscal Year	Loan and Advance	Total Deposit	Ratio in %
2004/2005	3649	4807	75.91
2005/2006	5584	6268	89.09
2006/2007	6892	7768	88.72
2007/2008	8929	10557	84.58
2008/2009	11335	12774	88.73
2009/2010	14594	15711	92.89
Average			86.65

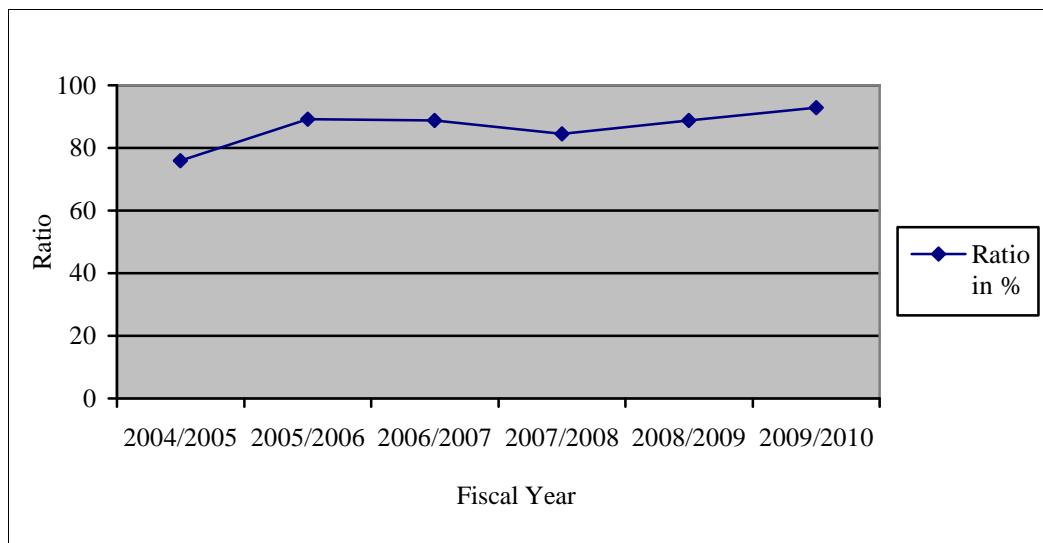
(Source: Annual Reports of KBL)



The above table shows loans and advances to total deposits ratio of last six fiscal years of KBL. FY 2009/10 has highest contribution in loans and advances from total deposits with 92.89% and lowest in FY 2004/05 with 75.917%. Average ratio of six fiscal years is 86.65%. While comparing it with each fiscal year, it shows that FY 2005/06, 2006/07, 2008/09 and 2009/10 has highest ratio and 2004/05 and 2007/08 has lowest ratio

Figure 4.4

Trend analysis of Loans and Advances to Total Deposits Ratio of KBL



The above trend analysis indicates loans and advances to total deposits ratio of KBL for the last six years. It shows that the trend was in fluctuating then in increasing trend.

By comparing above tables and diagrams, it shows that HBL increased its loans and advances with increasing total deposits from FY 2005/06 onward, which is a favorable scenario for the organization. Similarly, KBL was fluctuating in loans and advances with increasing total deposits. Each bank should increase its loans and advances to an optimal level in order to generate income to meet expenses.

#### 4.1.3 Loans and Advances to Shareholder's Equity Ratio

Shareholder's equity consists of paid up capital, undistributed profits, reserves, and retained earnings. The ratio between loans and advances to shareholder's equity shows how far the shareholder's equity has been able to generate assets to multiply its wealth. It

also measures the success of converting liability into assets and measures size of the business as well as how effective fully equity is mobilized in loans and advances.

Table 4.5

Loans and Advances to Shareholder's Equity Ratio of HBL

(Rs in millions)

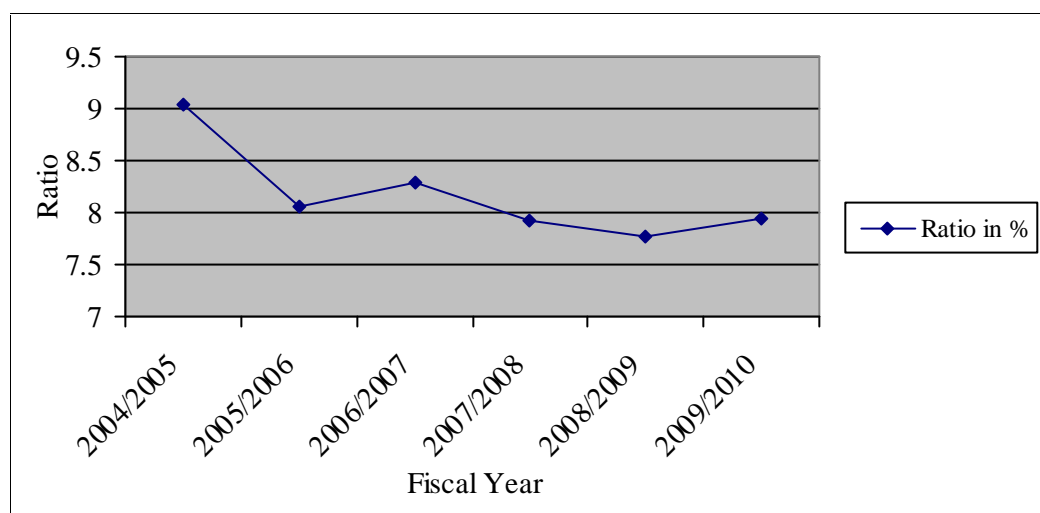
Fiscal Year	Loan and Advance	Shareholder's Equity	Ratio
2004/2005	11951	1324.16	9.03
2005/2006	12424	1541.75	8.06
2006/2007	14642	1766.18	8.29
2007/2008	16997	2146.50	7.92
2008/2009	19497	2513.00	7.76
2009/2010	24793	3119.89	7.95
Average			8.17

(Source: Annual Reports of HBL)

The above table shows loans and advances to shareholder's equity ratio of last six fiscal years of HBL. FY 2004/05 has highest contribution in loans and advances from shareholder equity with 9.03 ratio and lowest in FY 2009/10 with 7.95 ratio. Average ratio of six fiscal years is 8.17. While comparing it with each fiscal year, it shows that FY 2004/05 and 2006/07 has highest ratio and 2005/06, 2007/08 and 2008/09 and 2009/10 has lowest ratio

Figure 4.5

Trend analysis of Loans and Advance to Shareholder's Equity Ratio of HBL



The above trend analysis indicates loans and advances to shareholder's equity of HBL for the last six years. It shows trend is in decreasing form.

Table 4.6  
Loans and Advance to Shareholder's Equity Ratio of KBL

(Rs in millions)

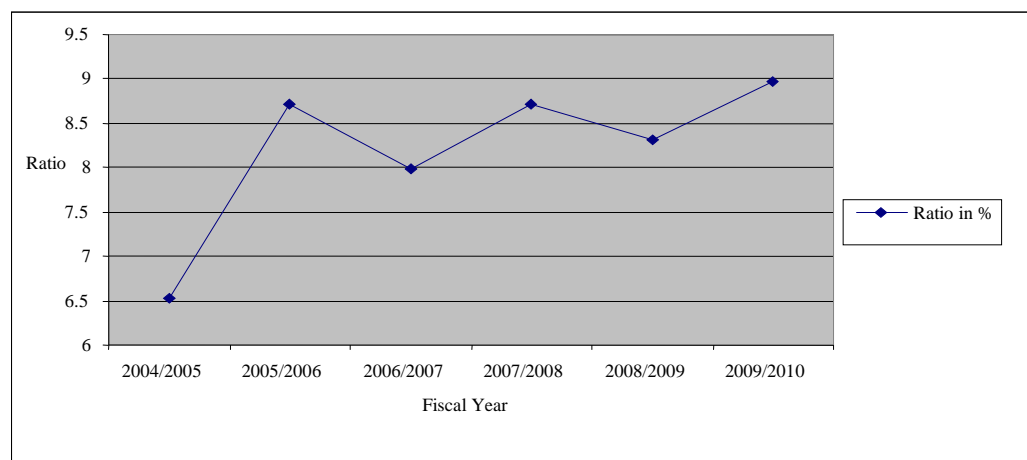
Fiscal Year	Loan and Advance	Shareholder's Equity	Ratio in %
2004/2005	3649	559	6.53
2005/2006	5584	641	8.71
2006/2007	6892	863	7.99
2007/2008	8929	1025	8.71
2008/2009	11335	1364	8.31
2009/2010	14594	1625	8.98
Average			8.20

(Source: Annual Reports of KBL)

The above table shows loans and advances to shareholder's equity ratio of last six fiscal years of KBL. FY 2009/10 has highest contribution in loans and advances from shareholder equity with 8.98 ratio and lowest in FY 2004/05 with 6.53 ratio. Average ratio of six fiscal years is 8.20. While comparing it with each fiscal year, it shows that FY 2005/06, 2007/08, 2008/09 and 2009/10 has highest ratio and 2004/05, and 2006/07 has lowest ratio

Figure 4.6

Trend analysis of Loans and Advance to Shareholder's Equity Ratio of KBL



The above trend analysis indicates loans and advances to shareholder's equity of KBL for the last six years. It shows the fluctuating trend.

The above two tables and diagrams show the ratio of loans and advances to shareholder's equity of HBL and KBL. Average mean of KBL is higher than HBL (i.e.  $8.20 > 8.17$ ) which indicates that KBL is able to invest more in loans and advances from its owner's fund than HBL. By comparing both banks' trends it shows that KBL is slightly in a fluctuating trend whereas HBL is in a decreasing trend. If the ratios are below the combined mean, it can be concluded that they have not succeeded in increasing loans and advances in proportion to the size of their capital.

## **4.2 Activity Ratio**

Activity ratio also referred to as asset management ratio or turnover ratio, are employed to evaluate the efficiency with which the firm manages and utilizes its assets. This ratio is based on the relationship between the levels of activity, represented by sales or cost of goods sold and level of various assets. The following ratios are used in this study to determine the efficiency, quality and contribution of loans and advances in the total profitability.

### **4.2.1 Loan Loss provision to Loans and Advances**

The ratio of loan loss provision to total loans and advances describes the quality of asset in form of loan is bank holding. Loan loss provision, in fact the cushion against future contingency created by the default of the borrowers. Loan loss provision indicates the figure that is the summation of provision made against all type of loans as per the NRB directives. According to the NRB directives, it directs to make the provision of 1%, 25%, 50% and 100% for good loans, sub-standard loans, doubtful loans and bad loans respectively. Loan loss provision occupies the large share in the total provision. Presented in the profit and loss account and definitely decrease the profit of the company. Since, according to the NRB directives 1% provision to be provided for all good loans, it does get a large portion of the total loan loss provision.

Table 4.7  
Loan Loss Provision to Loans and Advances of HBL

(Rs in millions)

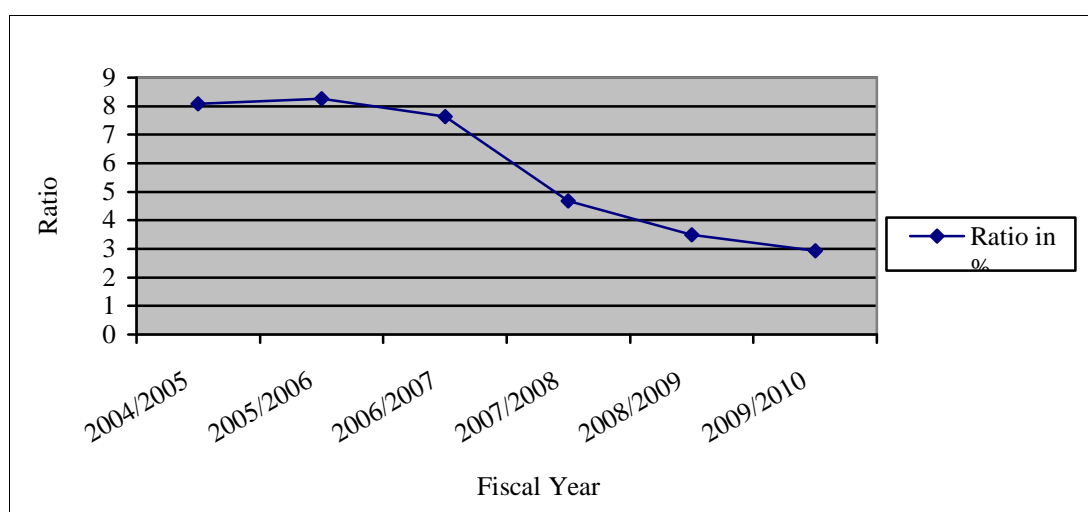
Fiscal Year	Loan Loss Provision	Loans and Advances	Ratio in %
2004/2005	967	11951	8.09
2005/2006	1026	12424	8.26
2006/2007	1119	14642	7.64
2007/2008	795	16997	4.68
2008/2009	682	19497	3.50
2009/2010	726	24793	2.93
Average			5.85

(Source: Annual Reports of HBL)

The above table shows loan loss provision to total loans and advances ratio of last six fiscal years of HBL. FY 2005/06 has highest ratio with 8.26% and lowest in FY 2009/10 with 2.93%. Average ratio of six fiscal years is 5.85%. While comparing it with each fiscal year, it shows that FY 2005/06, 2004/05 and 2006/07 has highest ratio and 2007/08, 2008/09 and 2009/10 has lowest ratio

Figure 4.7

Trend analysis of Loan Loss Provision to Loans and Advances of HBL



The above trend analysis indicates loan loss provision to total loans and advances of HBL for the last six years. It shows that the trend has been gradually decreasing moving on following fiscal year which can be considered as healthy for the bank.

Table 4.8

Loan Loss Provision to Loans and Advances of KBL

Rs. in million

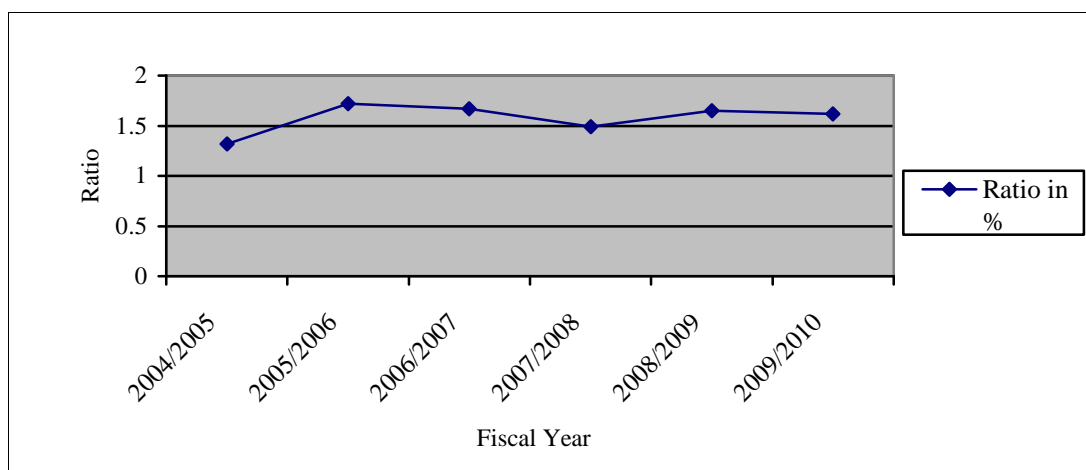
Fiscal Year	Loan Loss Provision	Loan and Advance	Ratio
2004/2005	48	3649	1.32
2005/2006	96	5584	1.72
2006/2007	115	6892	1.67
2007/2008	133	8929	1.49
2008/2009	187	11335	1.65
2009/2010	237	14594	1.62
Average			1.58

Source: Annual Reports of KBL)

The above table shows loan loss provision to total loans and advances ratio of last six fiscal years of KBL FY 2005/06 has highest ratio with 1.72% and lowest in FY 2004/05 with 1.32%. Average ratio of six fiscal years is 1.58%. While comparing it with each fiscal year, it shows that 2005/06, 2006/07, 2008/09 and 2009/10 has highest ratio and FY 2004/05 and 2007/08 has lowest ratio.

Figure 4.8

Trend analysis of Loan Loss Provision to Loans and Advances of KBL



The above trend analysis indicates loan loss provision to total loan and advance of KBL for the last six years. It shows that the trend is in fluctuating form.

By comparing above two tables and diagrams, it shows that KBL has the lowest average ratio to HBL (i.e. 1.58 % < 5.85%). It shows that KBL perform good lending performance than HBL. The ratio of HBL is in decreasing trend but the ratio of KBL is in fluctuating trend. The low ratio indicates the good quality of assets (loans and advances) in the total volume of loans and advances where as high ratio indicates more risky assets (loans and advances having chances of default) in the volume of loans and advances.

#### 4.2.2 Non-Performing Loan to Loans and Advances Ratio

As per NRB directives, sub-standard, doubtful and bad loans are categorized under non-performing loans. Increasing in non-performing loans increase loan loss provision and interest suspense too, which ultimately results in profit deduction. The banking sector is severely affected by the non-performing loans problems. It is estimated that the non-performing loans of the Nepalese banking system are around 16%. Therefore, there is no doubt that it has a serious implication on economic performance of the country.

Table 4.9  
Non-Performing Loan to Loans and Advances Ratio of HBL  
Rs. in million

Fiscal Year	Non Performing Loan	Loan and Advance	Ratio in %
2004/2005	1147	11951	9.60
2005/2006	1001	12424	8.06
2006/2007	1040	14642	7.10
2007/2008	641	16997	3.77
2008/2009	477	19497	2.45
2009/2010	536	24793	2.16
Average			5.52

(Source: Annual Report of HBL)

The above table shows non-performing loan to total loans and advances ratio of last six fiscal years of HBL. In order words, total non-performing loan in total loans and

advances. FY 2004/05 has highest ratio with 9.60% and lowest in FY 2009/10 with 2.16%. Average ratio of six fiscal years is 5.52%. While comparing it with each fiscal year, it shows that 2004/05, 2005/06 and 2006/07 has highest ratio and FY 2007/08, 2008/09 and 2009/10 has lowest ratio

Figure 4.9  
Trend analysis of Non-Performing Loan to Loans and Advances Ratio of HBL

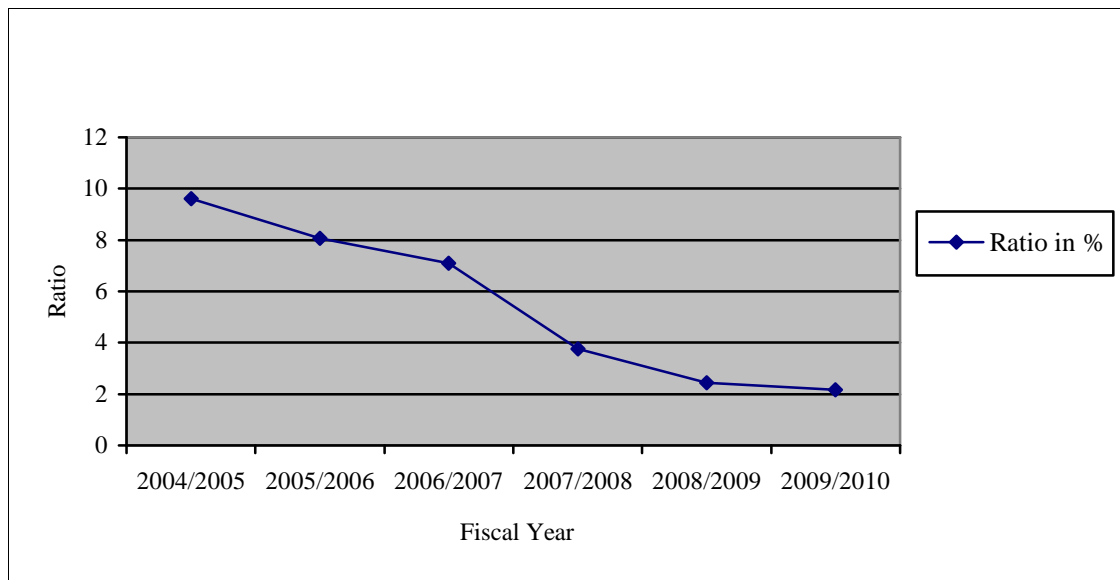


Table 4.10  
Non-Performing Loans to Loans and Advances Ratio of KBL

Rs. in million

Fiscal Year	Non-Performing Loan	Loan and Advance	Ratio in %
2004/2005	28	3649	0.77
2005/2006	53	5584	0.95
2006/2007	64	6892	0.93
2007/2008	66	8929	0.74
2008/2009	152	11335	1.34
2009/2010	193	14594	1.32
Average			1.01

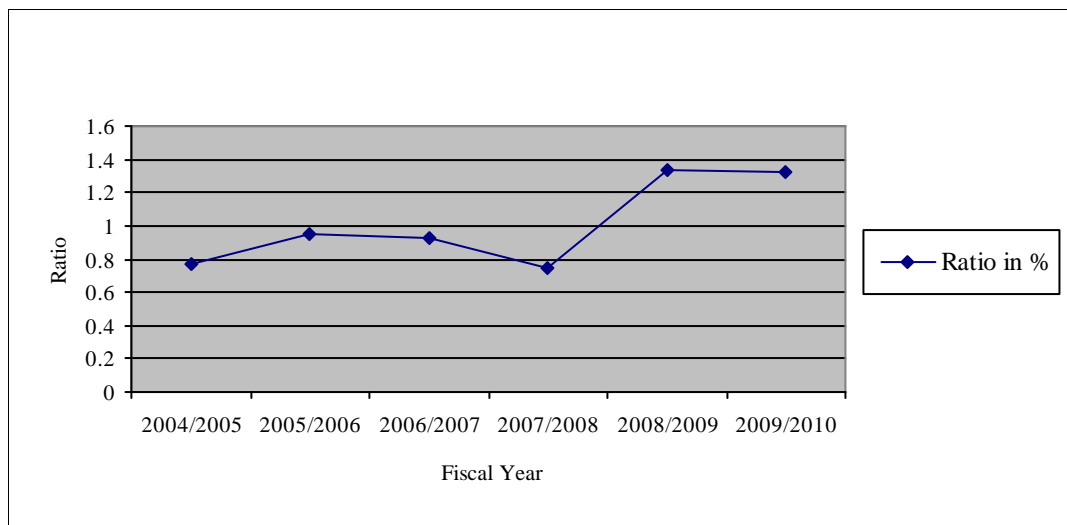
(Source: Annual Reports of KBL)



The above table shows non-performing loan to total loans and advances ratio of last six fiscal years of KBL. FY 2009/10 has highest ratio with 1.32% and lowest in FY 2004/05 with 0.77%. Average ratio of six fiscal years is 1.01%. While comparing it with each fiscal, it shows that 2008/09 and 2009/10 has highest ratio and FY 2004/05, 2005/06 2006/07 and 2007/08 has lowest ratio.

Figure 4.10

Trend analysis of Non-Performing Loans to Loans and Advances Ratio of KBL



The above trend analysis indicates non-performing loan to total loan and advance of KBL for the last six years. It shows fluctuating trend.

By comparing above two tables and diagrams HBL has reduced its non-performing loans by large percentages during the six years of period from 9.60% to 2.12%. It shows consistent performance of HBL. In FY 2005/06 non-performing loan was in highest point in comparison to other FYs. Like wise, highest non-performing loan of KBL was in FY 2009/10 and lowest in FY 2005/06. However, average mean of HBL is higher than KBL (i.e. 5.52% >1.01%). It indicates that KBL is in better position than KBL in non-performing loan. Furthermore, KBL lending position is in strength position comparison to HBL.

#### 4.2.3 Interest Suspense to Interest Income from Loans and Advances Ratio

Interest suspense means the interest due but not collected. NRB directive do not allow the commercial banks to book due but unpaid interest into income. The increase in the

interest suspense decreases the profit of the company. Such interest is shown in liability side of balance sheet under the heading “other liability”. The high degree of this ratio indicates to low interest turn over and low degree of this ratio indicates high turn over.

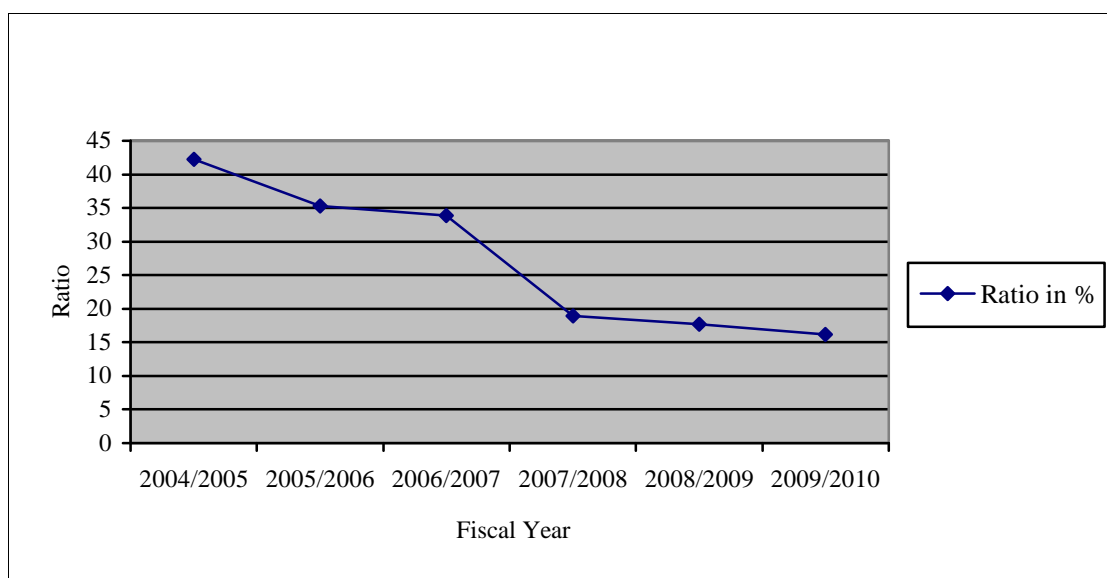
Table 4.11  
Interest Suspense to Interest Income ratio of HBL  
(Rs. in million)

Fiscal Year	Interest Suspense	Interest Income	Ratio in %
2004/2005	526	1245	42.25
2005/2006	511	1446	35.34
2006/2007	550	1626	33.83
2007/2008	336	1775	18.93
2008/2009	348	1963	17.73
2009/2010	378	2343	16.13
Average			27.37

(Source: Annual Reports of HBL)

The above table shows interest suspense to interest income ratio of last six fiscal years of HBL. FY 2004/05 has highest ratio with 42.25% and lowest in FY 2009/10 with 16.13%. Average ratio of six fiscal years is 27.37%. While comparing it with each fiscal, it shows that 2004/05, 2005/06 and 2006/07 has highest ratio and FY 2007/08, 2008/09 and 2009/10 has lowest ratio. ‘

Figure 4.11  
Trend analysis of Interest Suspense to Interest Income Ratio of HBL



The above trend analysis indicates interest suspense to interest income of HBL for the last six years. It show decreasing trend.

Table 4.12  
Interest Suspense to Interest Income Ratio of KBL

Rs. in million

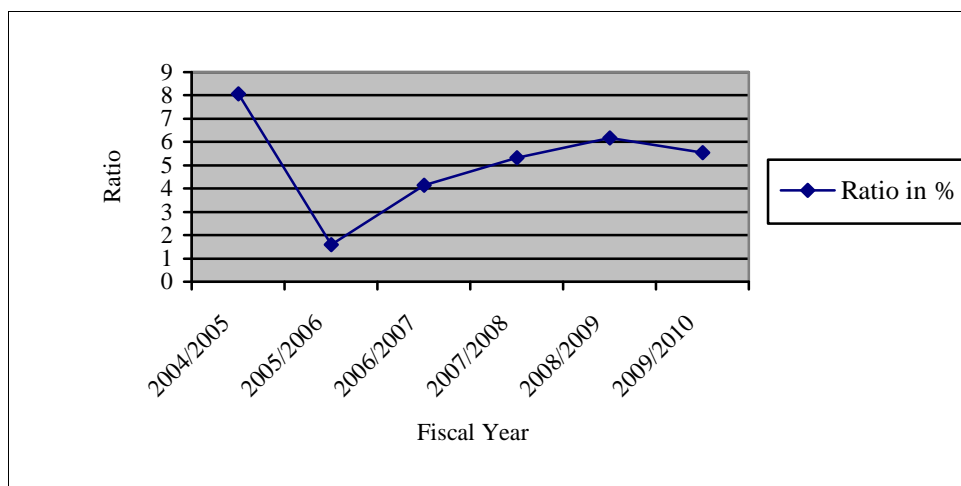
Fiscal Year	Interest Suspense	Interest Income	Ratio in %
2004/2005	25	310	8.06
2005/2006	8	499	1.60
2006/2007	25	605	4.13
2007/2008	42	791	5.31
2008/2009	59	957	6.17
2009/2010	75	1357	5.53
Average			5.13

(Source: Annual Reports of KBL)

The above table shows interest suspense to interest income ratio of last six fiscal years of KBL. FY 2004/05 has highest ratio with 8.06% and lowest in FY 2005/06 with 1.60%. Average ratio of six fiscal years is 5.13%. While comparing it with each fiscal, it shows that 2004/05, 2009/10, 2007/08 and 2008/09 has highest ratio and FY 2005/06 and 2005/06 has lowest ratio.

Figure 4.12

Trend analysis of Interest Suspense to Interest Income Ratio of KBL



The above trend analysis indicates interest suspense to interest income ratio of KBL for the last six years. It shows fluctuating trend.

By comparing above tables and diagrams, HBL occupied highest total interest suspense to total interest income from loans and advances comparison to KBL. HBL stood highest at 42.25% in FY 2004/05 and KBL was in FY 2004/05 with ratio of 8.06%. Higher the ratio lowers the income and vice versa. However, HBL able to decrease its interest suspense gradually on moving toward next fiscal year. Average mean ratio of HBL is higher than KBL (i.e. 27.37% > 5.13) which indicates that overall KBL is in better position in interest suspense than HBL.

#### 4.2.4 Interest Income to Interest Expenses Ratio

The ratio of interest income to interest expenses ratio measures the difference between interest rates offered and interest rate charged. The spread between the interest income and interest expenses is the main foundation for the profit of the bank. NRB had restrictions on the interest rate spread of the banks. The interest offered and the interest charged should not be more than 5%. The banks are free to fix interest rate on deposits and loans. Interest rates on all type of deposits and loans should be published in the local news papers and communicated to Nepal Rastra Bank on quarterly basis and immediately when revised. Deviation of 0.050 percent from the published rate is allowed on all type of loans and deposits. However in rate fixation but is does not specify the conditions that would oblige NRB to do so.

Table 4.13

#### Interest Income to Interest Expenses Ratio of HBL

(Rs. in million)

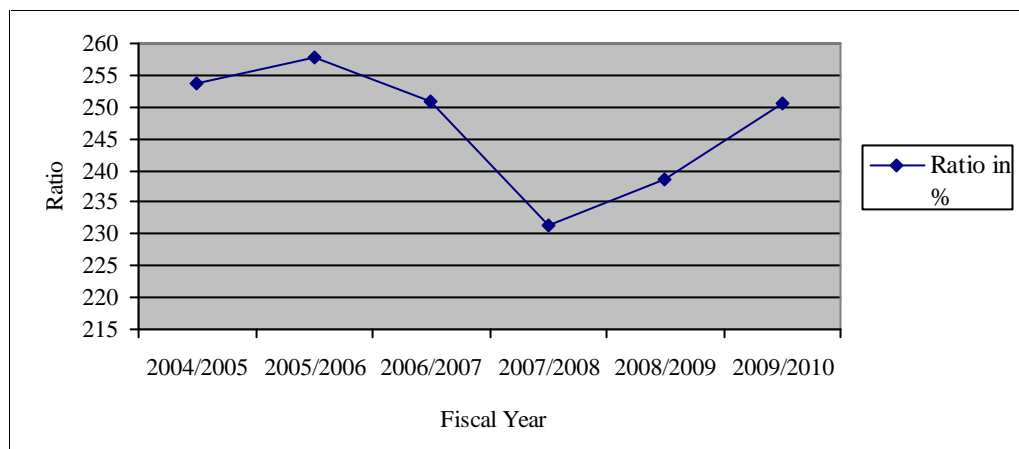
Fiscal Year	Interest Income	Interest Expenses	Ratio in %
2004/2005	1245	491	253.56
2005/2006	1446	561	257.75
2006/2007	1626	648	250.93
2007/2008	1775	767	231.42
2008/2009	1963	823	238.52
2009/2010	2343	935	250.59
Average			247.13

(Source: Annual Report of HBL)

The above table shows interest income to interest expenses ratio of last six fiscal years of HBL. FY 2005/06 has the highest ratio with 257.75% and lowest in FY 2007/08 with ratio of 231.42%. Average ratio of six fiscal years is 247.13%. When it compared with each fiscal year, it shows that FY 2004/05, 2005/06, 2006/07 and 2009/10 has highest ratio and 2007/08 and 2008/09 has lowest ratio.

Figure 4.13

Trend analysis of Interest Income to Interest Expenses Ratio of HBL



The above trend analysis indicates interest income to interest expenses ratio of HBL for the last six years. It shows fluctuating trend.

Table 4.14

Interest Income to Interest Expenses Ratio of KBL

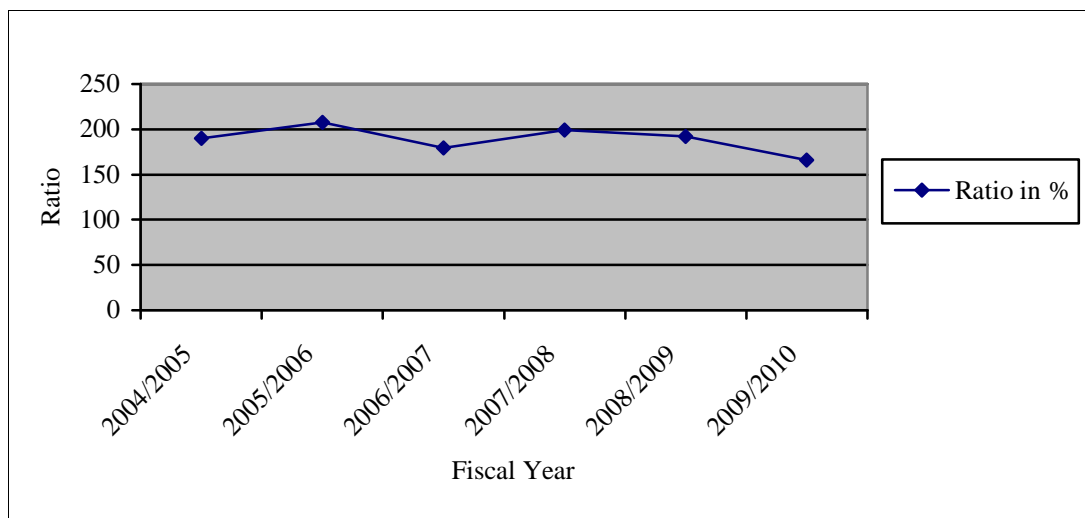
(Rs. in million)

Fiscal Year	Interest Income	Interest Expenses	Ratio in %
2004/2005	310	163	190.18
2005/2006	499	240	207.92
2006/2007	605	337	179.53
2007/2008	791	397	199.24
2008/2009	957	498	192.17
2009/2010	1357	816	166.30
Average			189.22

(Source: Annual Reports of KBL)

The above table shows interest income to interest expenses ratio of six fiscal years of KBL. FY 2005/06 has the highest ratio with 207.92% and lowest in FY 2009/10 with ratio of 166.30%. Average ratio of six fiscal years is 189.22%. When it compared with each fiscal year, it shows that FY 2005/06, 2007/08, 2008/09 and 2004/05 has highest ratio and 2006/07, 2009/10 has the lowest ratio.

Figure 4.14  
Trend analysis of Interest Income to Interest Expenses



The above trend analysis indicates total income to total interest to total expenses ratio of KBL for the last six years. It shows fluctuating trend.

By comparing above tables and diagrams, it shows that interest income to interest expenses ratio. The average ratio of HBL is 247.13%, which mean that a rupee of expenses in deposits generates 241.19% of interest income in an average where as KBL stand for 189.22%. HBL has the highest ratio i.e. 257.75% in the FY 2005/06, which mean that one rupee of interest expenses has been able to earn 257.75%. KBL has the high ratio with 207.92% in the FY 2005/06. HBL is charging high interest rate in average than KBL i.e. 247.19% >189.22.

### 4.3 Profitability Ratio

Profitability is the net result of a number of policies and decisions. It is another tool to measure the financial position of the bank. Profitability ratios are calculated to measure

the operating efficiency of the company or it measures how effectively the bank has managed their funds to earn profit. Profit is the differences between total revenues and expenses over a period (usually one year). Profit is the ultimate out of a commercial bank, and it will have no future if it fails to make sufficient amount of profit. Profitability ratios show the combined efficiency of the firm in term of profit and financial performance of any institutions.

### 4.3.1 Return on Equity (ROE)

Net worth or shareholder's equity refers to owners claim on the assets of the bank. ROE measure how profit ability the owners fund has been utilized by the banks. To measure the return earned by shareholder's, return on shareholder's equity is used or this ratio is calculated to find out the profit ability on the owners capital or investment. The earning of satisfactory return is the most desirable objective of business as common or ordinary share holders are entitled to the residual profits. If the rate of dividend is not fixed, the earnings may be distributed to shareholder's or retained in the business. Nevertheless, the net profit after tax represents their return. Higher ratio indicates sound management and efficiency for earning a satisfactory return to its equity shareholder's.

Table 4.15  
Return on Equity of HBL

Fiscal Year	Net Profit	Shareholder's Equity	(Rs. in million)
			Ratio in %
2004/2005	263	1323	19.88
2005/2006	308	1541	19.99
2006/2007	457	1765	25.89
2007/2008	491	2145	22.89
2008/2009	635	2512	25.28
2009/2010	753	3120	24.13
Average			23.01

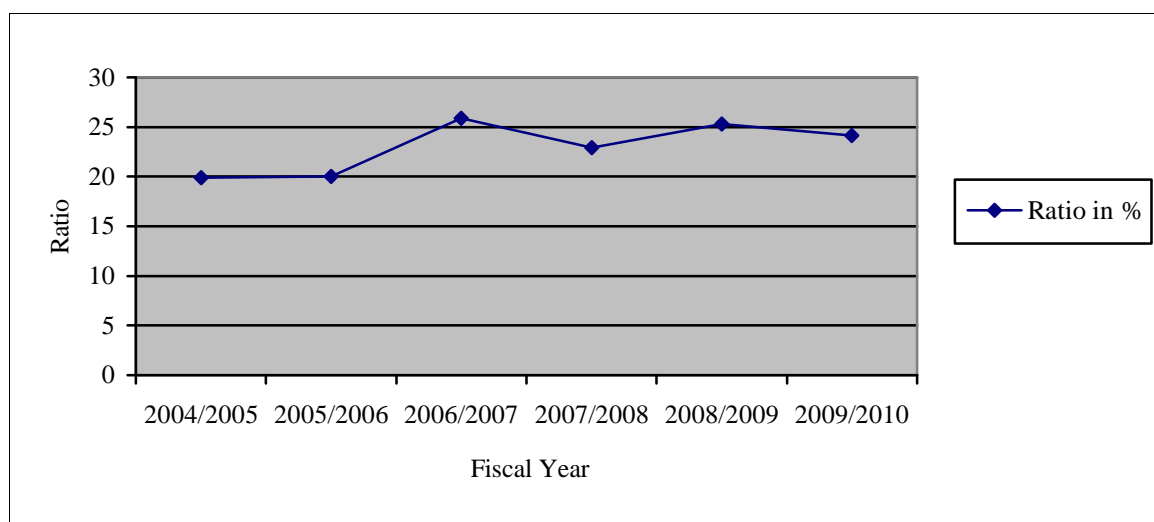
(Source: Annual Reports of HBL)

The above table depicts the ROE ratio of six fiscal years of HBL. The ratio is in a fluctuating situation as in FY 2004/2005, the ratio was 19.88%, in the next year 2005/06,

it was 19.99% followed by 25.89% in FY 2006/07 and 22.89% in FY 2007/08, in FY 2009/10 and 2008/2009 it decreased to 24.13% from 25.28% respectively. Average ratio of six fiscal years is 23.01%. While comparing it with each fiscal year it shows that FY 2004/05, 2005/06 and 2007/08 has lowest ratio and 2006/07, 2008/2009 and 2009/10 has highest ratio.

Figure 4.15

Trend analysis of Return on Equity of HBL



The above trend analysis indicates return on equity of HBL for last six fiscal years. It shows the fluctuating trend.

Table 4.16

Return on Equity of KBL

(Rs in million)

Fiscal Year	Net Profit	Shareholder's Equity	Ratio in %
2004/2005	48	559	8.59
2005/2006	84	641	13.10
2006/2007	103	863	11.94
2007/2008	170	1025	16.59
2008/2009	174	1364	12.76
2009/2010	262	1624	16.13
Average			13.18

(Source: Annual Report of KBL)

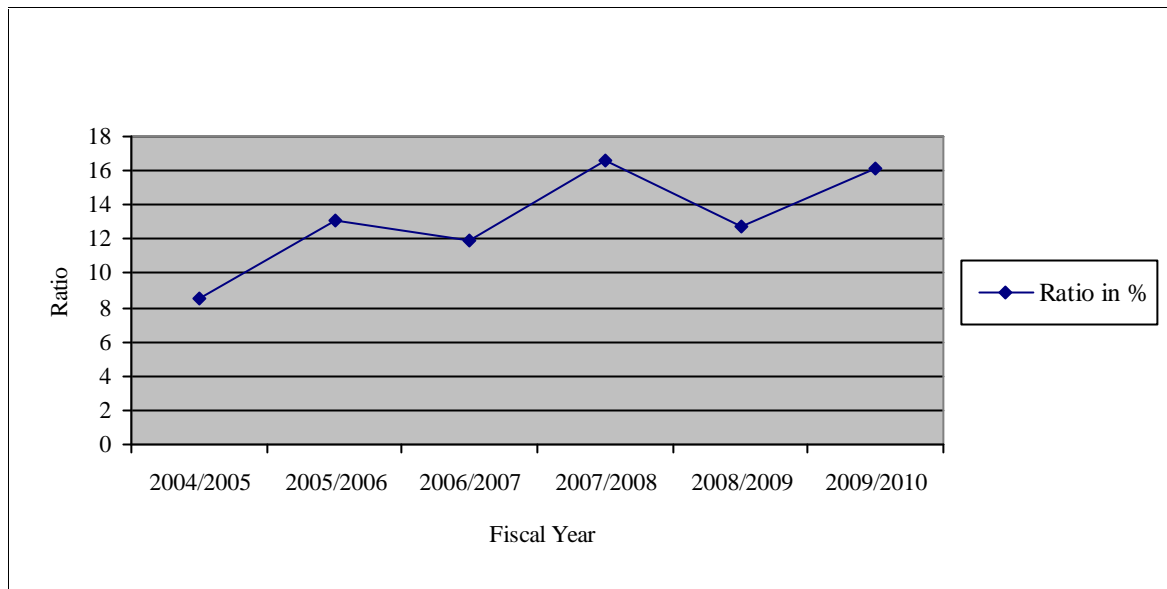
The above table depicts the ROE ratio of six fiscal years of KBL. The ratio is in a fluctuating situation as in FY 2004/2005, the ratio was 8.59%, in the next year 2005/06, it



was 13.10% followed by 11.94% in FY 2006/07 and 16.59% in FY 2007/08, in FY 2009/10 and 2008/2009 it increased to 16.13% from 12.76%. Average ratio of six fiscal years is 13.18%,. While comparing it with each fiscal year it shows that FY 2004/05, 2006/07 and 2008/09 has lowest ratio and 2005/06 and 2007/08 and 2009/10 has highest ratio.

Figure 4.16

Trend analysis of Return on Equity of KBL



The above trend analysis indicates return on equity of last six fiscal years. It shows the fluctuating trend.

By comparing above tables and diagrams, ROE of both banks is in fluctuating trend. ROE of HBL was highest in FY 2006/07 with 25.89% and lowest in FY 2004/05 with 19.88% and ROE of KBL was highest in FY 2007/08 with 16.59% and lowest in FY 2004/05 with 8.59%. However, average mean ratio of HBL is higher than KBL (i.e. 23.01% > 13.18%) which indicates that HBL able to generate high return on its owner investment. Both banks must concentrate on increasing ROE for wealth maximization of shareholders and for good health of organization.

### 4.3.2 Earning Per Share (EPS)

EPS simply shows the profit ability of the firm on a per share basis. It does not reflect how much is paid as dividend and how much is retain in the business. EPS measures profitability of the common shareholder's investment. EPS represents the amount earns on the behalf of each outstanding share of common stock. EPS refer to net profit divided by the total number of share outstanding. This figure is the indicative of the overall good or bad performance of an organization. How far an organization is able to use its resources to generate profit is determine by the profit it has earned. Thus, EPS determines the market value of a share, determines the attitude of outsiders.

Table 4.17

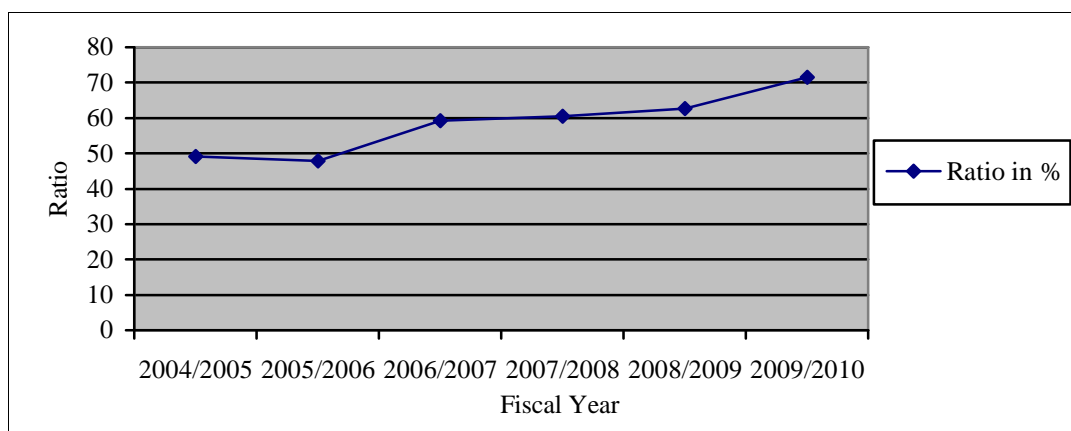
#### Earning Per Share of HBL

Rs in millions			
Fiscal Year	Net Profit	Total no. of Share	EPS
2004/2005	263	5.3625	49.04
2005/2006	308	6.435	47.86
2006/2007	457	7.722	59.18
2007/2008	491	8.1081	60.56
2008/2009	635	10.1352	62.65
2009/2010	753	12.1622	61.91
Average			56.67

(Source: Annual Reports of HBL)

The above table depicts EPS of last six fiscal year of HBL. FY 2009/10 has highest EPS with 62.65% and lowest in FY 2005/06 with 47.86%. Average EPS of six fiscal years is 56.67%. While comparing it with each fiscal year, it shows that FY 2005/06, 2006/07, 2007/08 and 2008/09 has highest ratio and 2005/06 and 2005/06 has lowest ratio.

Figure 4.17  
Trend analysis of Earning per Share of HBL



The above trend analysis indicates EPS of last six fiscal years of HBL. It shows that the trend was in decreasing from FY 2004/05 to 2005/06 and increasing trend from FY 2006/07 to 2009/10.

Table 4.18  
Earning Per Share of KBL

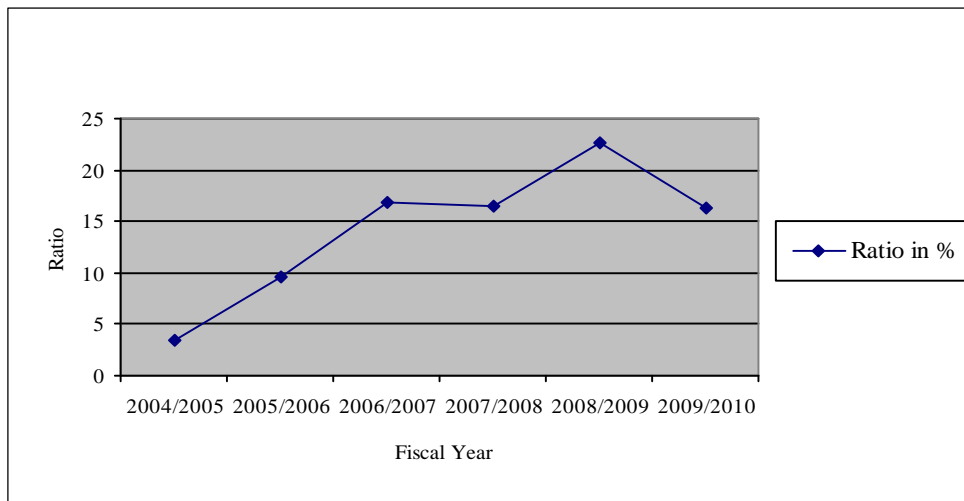
Fiscal Year	Net Profit	Total no. of Share	Ratio in %
2004/2005	48	5	3.42
2005/2006	84	5	9.6
2006/2007	103	6.25	16.80
2007/2008	170	7.5	16.48
2008/2009	174	10.7	22.67
2009/2010	262	11.86	16.26
Average			14.21

(Source: Annual Reports of KBL)

The above table depicts EPS of last six fiscal year of KBL. FY 2008/09 has highest EPS with 22.67% and lowest in FY 2004/05 with 3.42%. Average EPS of six fiscal years is 14.21%. While comparing it with each fiscal year, it shows that FY 2006/07, 2007/08, 2008/09 and 2009/10 has highest ratio and 2004/05 and 2005/06 has lowest ratio

Figure 4.18

Trend analysis of Earning Per Share of KBL



The above trend analysis indicates EPS of last six fiscal years of KBL.

By comparing above tables and diagrams, EPS of both banks is in fluctuating trend. EPS of HBL was highest in FY 2008/09 with 62.65% and lowest in FY 2005/06 with 47.86% and EPS of KBL was highest in FY 2008/09 with 22.67% and lowest in FY 2004/05 with 3.42%. However, average mean ratio of HBL is higher than KBL (i.e. 56.67% > 14.21%) which indicates that HBL is in a better position to earn profit per share than KBL. Increase in EPS indicates an increase in wealth maximization of shareholders.

#### 4.4 Measuring Correlation Coefficient between different variables

Correlation is a statistical tool that can be used to describe the degree of linear relationship of one variable to other variables. Correlation analysis is another important tool in statistics. It describes the relationship between variables and shows the degree of dependency of one variable with another variable. Two variables are said to be correlated when the change in one variable results in a change in other variables. Different models for correlation analysis have been formulated and we have to use Karl Pearson coefficient of correlation to determine the relationship between variables studied.

Karl Pearson method, popularly known as Pearsonian coefficient of correlation, is most widely used in practice. The Pearsonian coefficient of correlation is denoted by the symbol of 'r'

#### 4.4.1 Correlation between Loans and Advances and Total Deposits

The coefficient of correlation between loan and advances and deposit is to measure the degree of relationship between these two variables. Accepting deposit and granting loan are the main function of commercial banks. The main objectives of computing between two variables are to find out whether deposits are significantly used as loan and advances in a proper manner or not. The relationship of deposit and loan and advances should always be perfect positive

Table 4.19

Correlation between Loans and Advances and Total Deposits

Banks	r	r <sup>2</sup>	P.E.	6P.E.
HBL	0.98	0.9604	0.011	0.066
KBL	0.99	0.9801	0.005	0.03

(Source: Appendix- 1&2)

The above table shows the co-efficient of correlation between loan and advances and deposit of HBL and KBL. In case of HBL, the co-efficient of correlation between loan and advances and deposit is 0.98, which indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9604, which means 96.04%. KBL has high degree of positive correlation of 0.99 than HBL i.e. 0.98, which indicates that deposit follows the pattern of loan and advances which means if deposit increase loan and advances also increase in the same ratio and vice versa. Likewise, value of P.E. is 0.011 of HBL and 0.005 of KBL. The value of 'r' is higher than the six time of its P.E., which shows the value of co-efficient of correlation is significant. There is significant relationship between deposit and loan and advances and the bank is mobilizing its deposited as loan and advances successfully.

#### 4.4.2 Correlation between Loan Loss Provision and Loans and Advances

The relationship shows the likely pattern of loan loss provision if loan changes. In other words, correlation of loan loss provision and loan and advances indicates the degree of

liner relationship between these two variables, which helps to take decision regarding loan and advances.

Table 4.20  
Correlation between Loan Loss Provision and Loans and Advances

Banks	r	r <sup>2</sup>	P.E.	6P.E.
HBL	-0.52	0.2704	0.20	1.20
KBL	0.99	0.9801	0.005	0.03

(Source: Appendix-3&4)

The above table shows the co-efficient of correlation between loan loss provision and loan and advances of HBL and KBL. It shows that the value of 'r' is not significant. HBL has negative relation with -0.52 as the value of 'r'. The value of P.E. is 0.20 and 6P.E. is 1.20. The value of r is less than the value of 6 P.E., which shows that the value of 'r' is insignificant. KBL has positive correlation between loan loss provision and loan and advances. The value of 'r' is 0.99 for KBL and the coefficient of determination 'r<sup>2</sup>' is more than the value of 6P.E. i.e.  $0.99 > 0.03$  which shows that the value of 'r' is significant for KBL.

#### 4.4.3 Correlation between Total Income and Loans and Advances

The correlation between total income and loan and advances measures the degree of relationship between these two variables. The value of 'r' explains weather a percentages of changes in loan and advances contribute to increase the same percentage of income or not. Loan and Advances is independent variables and total income is dependent variables.

Table 4.21  
Correlation between Total Income and Loan and Advances

Banks	r	r <sup>2</sup>	P.E.	6P.E.
HBL	0.96	0.9216	0.022	0.132
KBL	0.99	0.9801	0.005	0.03

(Source: Appendix 5 & 6)

The above table shows that the coefficient and correlation between total income and loan and advances of HBL and KBL. It shows positive relationship between these two variables of HBL and KBL. In case of HBL, the co-efficient of correlation between total income and Loan and Advances is 0.96 indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9612, which means 96.12%. Further the value of P.E. is 0.022 and 6 P.E is 0.132 which shows that the co-efficient of correlation 'r' is higher than the value of 6 P.E. i.e. ( 0.96 > 0.132). Therefore, the value of 'r' is significant. Similarly, in case of KBL, the co-efficient of correlation between total income and loan and advances is 0.99, which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination  $r^2$  is 0.9801, which means 98.01%. Further the value of -P.E. is 0.005 and 6.P.E. is 0.030, which shows that the co-efficient of correlation 'r' is higher than the value of 6.P.E. i.e. (0.99>0.030). Therefore, the value of 'r' is significant.

#### 4.4.4 Correlation between Shareholder's Equity and Loans and Advances

The correlation between shareholder's equity and loan and advances shows the degree of impact of increase in loan and advances by change in shareholder's equity. Coefficient of correlation between shareholders equity and loan and advances measures the degree of relationship between their two variables. Here loan and advances ate the independent variable and shareholder equity is dependent variable.

Table 4.22

Correlation between Shareholder's Equity and Loan and Advances

Banks	r	$r^2$	P.E.	6P.E.
HBL	0.99	0.9801	0.005	0.03
KBL	0.99	0.9801	0.005	0.03

(Source: Appendix- 7&8)

The above table shows that there is high degree of positive correlation between shareholders equity and loan and advances in HBL and KBL banks. It shows good fund mobilization. The value of 'r' is significant for both HBL and KBL. In case of HBL, the

co-efficient of correlation between shareholder's equity and loan and advances is 0.99 that indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9801 that mean 98.01% Further the value of P.E is 0.005 and 6P.E. is 0.030, which shows that the coefficient of correlation 'r' is higher than the value of 6P.E. i.e.(0.99>0.030). Therefore, the value of 'r' is significant. In case of KBL, the co-efficient of correlation between shareholder's equity and loan and advances is 0.99 that indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9801 that means 98.01%. Further the value of P.E. is 0.005 and 6P.E. is 0.03, which shows that the co-efficient of correlation 'r' is higher that the Value of 6P.E. i.e. (0.99>0.03). Therefore, the value of 'r' is significant.

#### **4.5 Major Findings of the Study**

The major findings of the study are summarized below-

- Loans and Advances to Total Assets Ratio of KBL is higher than HBL i.e. (74.52%>51.71%). It means KBL has good lending performance.
- Loans and Advances to Total Deposits ratio of KBL is higher than HBL i.e. (86.65%>58.15%). It shows that KBL mobilizing its total deposits more to loans and advances than HBL. This ratio also depicts about the success of commercial banks to convert their liabilities into assets.
- Loans and Advances to shareholder's Equity ratio have gained the significant important in measuring the capital fund. Average ratio of Loans and Advances to shareholder's equity of KBL is higher than HBL (i.e. 8.17%>8.20).It shows that KBL invested more in loans and advances from shareholder's equity than HBL. In other words which show that KBL is able to mobilize its owner's fund more in loans and advances than HBL.
- NRB has issued directives for loan loss provision and non-performing loan. The measurement of efficiency in lending has revealed that loan loss Provision to loans and advances ratio is satisfactory according to NRB directives. Loan loss provision indicates provision against performing and non- performing loans. Average ratio of loan loss provision and non- performing loan of HBL is higher than KBL (i.e. 5.85%>1.01% & 5.52%>1.07) which generalized that KBL is in



better position in loan loss provision and non-performing loan. HBL need to control over its loans and advances in order to perform and sustain in the industry.

- As a whole HBL has reduced its loan loss provision and non-performing loan by large percentage during the last six years .Furthermore, loan loss provision and non-performing loan of KBL is in fluctuating.
- Ratio of interest suspense of HBL is in decreasing trend which is good and healthy for organization where as interest suspense of KBL is in fluctuating trend which need to be control and should accelerate to move on decreasing trend. But average ratio of interest suspense to interest income from loans and advances of HBL is higher than KBL (i.e. 27.37%>.5.13%).
- Interest income to interest expenses indicates that how much efficient in generating income to meet expenses. Average ratio of HBL is higher than KBL (i.e. 247.13%>189.22%).
- ROE and EPS of HBL is higher than KBL (i.e. 23.01%>13.18% & 56.67 >14.21). Increased in ROE and EPS maximized the wealth of shareholders. HBL succeed in maximization wealth of its shareholders than KBL which depicts healthy financial performance of the organization.
- The correlation analysis has shown high degree of correlation between deposits and loans and advances of HBL and KBL. There is significant relationship between deposits and loans and advances and the bank is mobilizing its deposits as loans and advances successfully. This means mobilization of loans and advances is in high degree in respect to the deposits collected. This is indicative of availability of good lending opportunities.
- The correlation analysis between loan loss provision and loans and advances shows KBL has high degree of positive correlation and HBL have negative correlation.
- There is high degree of positive correlation between shareholder's equity and loan and advances of HBL and KBL. It shows owner's fund have positive relation with loans and advances. The value of 'r' is significant for both banks.

## **CHAPTER-V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter highlights the result of the study derived from the analysis of concerned banks. The analysis of the data is carried out with the help of various financial and statistical tools. It is divided into summary, conclusion and recommendations.

#### **5.1 Summary**

Banking plays an indispensable role in the processes of development. They not only influence the structure of the economy but also its development process. Commercial bank plays an important role in directing the affairs of the economy in various ways. The operations of the commercial banks record the economic pulse of the economy.

Banking sector is the most essential and crucial sector of any economy. The economic developments of any nation depend on heavily on how well it has been able to mobilize economic resources. That is where the banking sector comes into play. Our daily business demands for continuous assistance from the banking sector. Bank has not just evolved as an institution where we can deposit money or acquire loan. The concept of banking has been changing into newer version. It has evolved to be an institution, which also provides other utility services such as agency services, safe keeping of variables, financial consultancy etc. However, the threshold purpose of banking remains the same and that is fund mobilization. The contribution of banking sector in capital creation, fund transfer, boosting of trade, providing employment has been very essential for the economic growth of a nation.

Commercial banks collect scattered saving from the people and provide resources as loan and advances to the people who need them. This activity build industrial environment in the country, create employment and investment opportunity for the people and consequently economy of the country secures people growth. Banking institution are inevitable for the resource mobilization and the all around development of the country. They have resources for economic development and they maintain economic confidence of various segments and credit to people

Financial intermediaries are those institutions, which mediate between the savers in the community and the users of the savings. Commercial bank is also one of the financial intermediaries. Commercial bank plays an important role in directing the affairs of the economy in various ways. The operations of commercial banks record the economic pulse of the economy.

Loan is the core area of the commercial banking; it plays the significance impact on the commercial bank's liquidity and profitability. However, the most worry factor in banking industry is the total management of loan. Due to the excessive amount of non- performing assets in commercial banks, there is the wide spread on the performance on the commercial banks

Lending is one of the important function of commercial bank and the composition of loan and advances directly affect the performance and profitability of the bank. There is more competition in banking business with limited market and less investment opportunities available. Every bank is facing the problem of default loan and there is always possibility of a certain portion of the loan and advances turning in non-performing loan. A study of loan and advances, profitability, deposits position of the commercial banks are analyzed and the bank lending strength, lending efficiency and its contribution in total profitability has been measured.

In this study, the financial tools, ratio analysis and profitability ratios are calculated to find out the lending strength of the commercial banks. Also statistical tools like, coefficient of correlation is calculated. The data used in this research is primary as well as secondary nature and extracted from the annual reports of the concerned banks and websites of Nepal stock exchange. The financial statements of six years (2003-2009) were selected for the study purpose.

## **5.2 Conclusion**

After analyzing and comparing HBL and KBL from both financial and statistical aspects, based on the main finding, following conclusion have been drawn:

The average ratio of last six fiscal years of loans and advances to total assets (i.e. 74.52%>51.71%) and loans and advances to total deposits (i.e. 86.65%>58.15%) of KBL

is higher than HBL. That means KBL has good lending performance. KBL was able to mobilize its collected deposits to loans and advances than HBL which depicts good performance and healthy for the organization. Loans and advances is a medium to generate incomes in order to meet expenses.

Loans and advances to shareholder's equity ratio of KBL is higher than HBL i.e. (8.20>8.17). KBL was able to invest more in loans and advances from its owner's fund. In case of loan loss provision and non-performing loan the average mean of HBL is higher than KBL i.e. (5.85%>1.58% & 5.52%>1.01%). It means it has collected the highest amount in provision for loan loss in comparison to KBL. Higher the loan loss provision and non-performing loan lower will be profit and vice versa. To control loan loss provision and non-performing loan bank should adopt proper credit guidelines and 7C.

HBL has highest average mean ratio of interest suspense than KBL i.e. (27.37%>5.13%). Interest suspense is that income which is incurred but not collected. The high degree of this ratio indicates to low interest turnover. In the context of interest income to interest expenses ratio, the average mean ratio of HBL is higher than KBL i.e. (247.13%>189.22%). HBL is charging high interest rate than KBL in order to meet expenses.

In the context of ROE, it is found that net profit and shareholder's equity of both concerned bank i.e. HBL and KBL are in increasing trend. The average mean ratio of HBL is higher than KBL i.e. (23.01%>13.18%). In case of EPS, the average mean ratio of HBL is higher than KBL i.e. (56.67>14.21). Higher percentage of EPS is preferable. Higher the ROE and EPS maximize the wealth of shareholders.

In case of HBL, the co-efficient of correlation between loans and advances and deposits is 0.98, which indicates positive correlation between these two variables. KBL has high degree of positive correlation of 0.99 than HBL i.e. 0.98, which indicates that deposit follows the pattern of loan and advances which means if deposits increase loans and advances also increase in the same ratio and vice versa. There is significant relationship between deposit and loans and advances and the bank is mobilizing its deposits as loans and advances successfully. This is indicative of good lending opportunities.

Co-efficient correlation between loan loss provision and loans and advances, it is found that the value of 'r' is not significant for HBL. HBL has negative relation with -0.52 as the value of 'r'. The value of P.E is 0.20 and 6P.E. is 1.20. the value of 'r' is less than the value of 6P.E, which shows the value of 'r' is insignificant. KBL has positive correlation between loan loss provision and loan and advances. The value of 'r' is more than the value of 6P.E. i.e.  $0.99 > 0.03$  which shows that the value of 'r' is significant for KBL. There was no relation between loan loss provision and loans and advances for HBL. Increasing and decreasing in loans and advances does not have any relation with loan loss provision.

In case of HBL, the co-efficient of correlation between total income and loans and advances is 0.96 that indicates positive correlation between these two variables. Similarly incase of KBL, the co-efficient of correlation between total income and loans and advances is 0.99, which indicates positive correlation between these two variables. Further, the value of r is more than 6.P.E, which shows that the co-efficient of correlation 'r' is higher than value of 6.P.E Therefore; the value of 'r' is significant.

HBL and KBL have positive correlation between shareholder's equity and loans and advances. The value of r for both concerned banks is 0.99 & 0.99 respectively which indicates there are positive relations between these two variables. It shows good fund mobilization. The value of 'r' is significant for both HBL and KBL. It indicates increased in share holder's equity increase in loans and advances and vice versa.

### **5.3 Recommendations**

The following recommendation and suggestions have been made to improve the related commercial banks based on present situation.

- Need to Diversify its lending

Banks should take steps to diversify its lending so that risk can be minimized and small borrowers are promoted. Also bank should develop the concept of micro financing. In addition bank is recommended to the group financing thereby diversifying it's lending by identifying new avenues rather than focusing merely in one sector.

➤ Need to Expand the Branches

All the banks are concentrated in the urban area. Not concentrating only in big cities and large groups, banks should expand new branches in rural areas so that people of all sector and area could be benefited with banking services and for the development of the country and to fulfill the government objectives of people in the economic development.

➤ Proper Guidelines to loan officers

In interaction with top management, Credit Quality Control (CQC) department should design a work guideline for the loan officers. These guidelines would contain tips on how to perform their duties with at most efficiency and credibility. For example, a guideline could be prepared mentioning monitoring tips, tips on how to tactfully handle problematic situations etc. These guidelines should be provided to the loan offices, right from their entry in the organization and also whenever required. These guidelines should be timely reviewed and modified as per situation.

➤ Arrange Weekly Corporate Meetings

Weekly corporate meeting should be conducted among the corporate officers and top management whereby proposals could be discussed and approvals could be done faster. This would add to the efficiency of the lending process.

➤ Prepare a watch list for clients under examination

Before granting a loan to a new client, the bank should first place him/ her in probation. During this period, the clients should be strictly and closely examined.

➤ Need to Reduce the Interest Rate on Loan

The interest rate can be minimized the appropriate management of the operating expenses and thereby spread rate (i.e. difference between rate of deposit and lending). It does mean that the bank should make lower the interest rates. The rate should be minimized with the scientific management of the fund and operating expenses.

➤ Need to invest the small Entrepreneur development program

Loan should provide to those who are economically backward and uplifting the condition of those people so bank should be come to forward to increase the number of clients, develop entrepreneurs diversify its business with large number of small investors according with investing to small entrepreneur development programmed.

➤ Need to invest to productive area that utilize the natural resources

Nepal is full of nature resources but these are not used properly due to lack of financial support as well as technical assistant. So, bank should grant the loan to this area for fruitful development to the country. Mainly, Nepalese Economy bases on agriculture and

major proportion of population depends upon this sector. Therefore, bank should promote these areas focusing its lending.

➤ Need to adopt the conservative lending policies

Banks should adopt the conservative lending policies to minimize the risk hereby ensuring its term sustainability. On the other hand, bank should modernize itself by providing the quality of service and satisfying the consumers. So, the bank should maintain the balance in its loan.

➤ Preference to the short term lending

It is justified that the risk can be minimized through short term lending than loan term. Therefore, preference to be given for short term trade financing and discouraging long-term loan and also focusing multiple returnable loan.

➤ Pricing of loan

It should be based on risk based pricing where the rate should be compensating the risk of the loan. It means loan pricing should be prime rate convention in which borrowers are priced on a prime rate plus or minus basis. However, it should be bear in mind that high pricing not always compensates the risk associated with it.

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Appendix -1

Calculation of correlation coefficient between loans and advances and total deposits of HBL

FY	Loans and Advances (X)	X <sup>2</sup>	Total Deposits(Y)	Y <sup>2</sup>	XY
2004/05	11951	142826401	22010	484440100	263041510
2005/06	12424	154355776	24814	615734596	308289136
2006/07	14642	214388164	26490	701720100	387866580
2007/08	16997	28889809	30048	902882304	510725856
2008/09	19497	380133009	31842	1013912964	620823474
2009/10	24793	614692849	39320	1546062400	9748460760
Total	X=85512	X <sup>2</sup> =1280621360	Y=156211	Y <sup>2</sup> =4159984113	XY=2300837563

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x \bar{X}^2}{N}} \sqrt{Y^2 - \frac{f_y \bar{Y}^2}{N}}}$$

$$= \frac{2300837563 - \frac{85512 \cdot 156211}{6}}{\sqrt{1280621360 - \frac{85512^2}{6}} \sqrt{4159984113 - \frac{156211^2}{6}}}$$

$$= \frac{2300837563 - 2226319172}{7867.93 \cdot 9643.89}$$

$$= \frac{74518391}{75877451.54}$$

$$= 0.98$$

$$r^2_{xy} = 0.9604$$

$$P.E. = 0.6745 \cdot \frac{1}{\sqrt{N}} = 0.6745 \cdot \frac{1}{\sqrt{6}} = 0.011$$

$$6P.E. = 6 \times 0.011 = 0.066$$

Appendix -2

Calculation of correlation coefficient between loans and advances and total deposit of  
KBL

FY	Loans and Advances (X)	X <sup>2</sup>	Total Deposits (Y)	Y <sup>2</sup>	XY
2004/05	3649	13315201	4807	23107249	17540743
2005/06	5584	31181056	6268	39287824	35000512
2006/07	6892	47499664	7768	60341824	53537056
2007/08	8929	79727041	10557	111450249	94263453
2008/09	11335	128482225	12774	163175076	144793290
2009/10	14594	212984836	18539	343694521	270558166
Total	X=38494	X <sup>2</sup> = 304636212	Y=44687	Y <sup>2</sup> =403677391	XY=350424919

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x^2}{N}}} \sqrt{Y^2 - \frac{f_y^2}{N}}$$

$$= \frac{350424919 - \frac{38494 \cdot 44687}{6}}{\sqrt{304636212 - \frac{38494^2}{6}}} \sqrt{403677391 - \frac{44687^2}{6}}$$

$$= \frac{63728022.67}{63924769.57}$$

$$= 0.99$$

$$r^2_{xy} = 0.9801$$

$$P.E. = \frac{1}{\sqrt{N}} \left( X \cdot 0.6745 \cdot \frac{1}{\sqrt{N}} \right) = \frac{1}{\sqrt{6}} \left( X \cdot 0.6745 \cdot \frac{1}{\sqrt{6}} \right) = 0.005$$

$$6P.E = 6 \times 0.005 = 0.03$$

Appendix -3

Calculation of correlation coefficient between loan loss provision and loans and advances of HBL

FY	Loans Loss Provision (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2004/05	967	935089	11951	142826401	11556617
2005/06	1026	1052676	12424	154355776	12747024
2006/07	1119	1252161	14642	214388164	16384398
2007/08	795	632025	16997	28889809	13512615
2008/09	682	478864	19497	380133009	13491924
2009/10	726	527076	24793	614692849	17999718
Total	X=5442	X <sup>2</sup> =5061464	Y=85512	Y <sup>2</sup> =1280621360	XY=76123421

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x \bar{X}^2}{N}} \sqrt{Y^2 - \frac{f_y \bar{Y}^2}{N}}}$$

$$= \frac{76123421 - \frac{5442 \cdot 85512}{6}}{\sqrt{5061464 - \frac{5442^2}{6}} \sqrt{1280621360 - \frac{85512^2}{6}}}$$

$$= \frac{1435963}{354.36 \cdot 7876.93}$$

$$= -0.52$$

$$r^2_{xy} = 0.2704$$

$$P.E. = \frac{1}{\sqrt{N}} \cdot \frac{Z r^2}{\sqrt{6}} = \frac{1}{\sqrt{6}} \cdot \frac{0.2704}{\sqrt{6}} = 0.20$$

$$6P.E. = 6 \times 0.20 = 1.20$$

Appendix -4

Calculation of correlation coefficient between loan loss provision and loans and advances  
of KBL

FY	Loans Loss Provision (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2004/05	48	2304	11951	142826401	175152
2005/06	96	9216	12424	154355776	536064
2006/07	115	13225	14642	214388164	792580
2007/08	133	17689	16997	28889809	1187557
2008/09	187	34969	19497	380133009	2119645
2009/10	237	56169	24793	614692849	3458778
Total	X=611	X <sup>2</sup> =78427	Y=38494	Y <sup>2</sup> =304636212	XY=4878358

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x^2}{N}} \sqrt{Y^2 - \frac{f_y^2}{N}}}$$

$$= \frac{4878358 - \frac{611 \times 38494}{6}}{\sqrt{78427 - \frac{611^2}{6}} \sqrt{304636212 - \frac{38494^2}{6}}}$$

$$= \frac{958385.6667}{127.31 \times 7594.18}$$

$$= 0.99$$

$$r^2_{xy} = 0.9801$$

$$P.E. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}} = 0.6745 \times \frac{0.9801}{\sqrt{6}} = 0.005$$

$$6P.E = 6 \times 0.005 = 0.03$$

Appendix-5

Calculation of correlation coefficient between total income and loans and advances of HBL

FY	Total Income (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2004/05	1245	810000	11951	100020001	9000900
2005/06	1446	1056784	12424	142826401	12285628
2006/07	1626	1428025	14642	154355776	14646680
2007/08	1775	1940449	16997	214388164	203963306
2008/09	1963	1940449	19497	28889809	23676821
2009/10	2343	2550409	24793	380133009	31136709
Total	X=7506	X <sup>2</sup> =9726116	Y=85512	Y <sup>2</sup> =1280621360	XY=111343044

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x^2}{N}} \sqrt{Y^2 - \frac{f_y^2}{N}}}$$

$$= \frac{111343044 - \frac{7506 \times 85512}{6}}{\sqrt{9726116 - \frac{7506^2}{6}} \sqrt{1280621360 - \frac{85512^2}{6}}}$$

$$= \frac{4367532}{579.75 \times 7867.93}$$

$$= 0.96$$

$$r^2_{xy} = 0.9216$$

$$P.E. = \frac{1}{\sqrt{N}} \times \frac{1}{\sqrt{6}} \times 0.9216 \times 0.022$$

$$6P.E = 6 \times 0.022 = 0.132$$

Appendix-6

Calculation of correlation coefficient between total income and loans and advances of  
KBL

FY	Total Income (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2004/05	310	11881	11951	142826401	4431025
2005/06	499	32041	12424	154355776	13315201
2006/07	605	90000	14642	214388164	31181056
2007/08	791	109561	16997	28889809	47499664
2008/09	957	220900	19497	380133009	79727041
2009/10	1357	320356	24793	614692849	128482225
Total	X=1955	X <sup>2</sup> =784739	Y=38494	Y <sup>2</sup> =304636212	XY=15451308

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x^2}{N}} \sqrt{Y^2 - \frac{f_y^2}{N}}}$$

$$= \frac{15451308 - \frac{1955 \times 38494}{6}}{\sqrt{784739 - \frac{1955^2}{6}} \sqrt{304636212 - \frac{38494^2}{6}}}$$

$$= \frac{2908679.667}{384.36 \times 7594.18}$$

$$= 0.99$$

$$r^2_{xy} = 0.9801$$

$$P.E. = \frac{1}{\sqrt{N}} \sqrt{1 - r^2} = \frac{1}{\sqrt{6}} \sqrt{1 - 0.9801} = 0.005$$

$$6P.E. = 6 \times 0.005 = 0.030$$



Appendix-7

Calculation of correlation coefficient between shareholder's equity and loans and advances of HBL

FY	S/E (X)	X <sup>2</sup>	Loans and Advances(Y)	Y <sup>2</sup>	XY
2004/05	1323	1129969	11951	100020001	10631063
2005/06	1541	1750329	12424	142826401	15811173
2006/07	1765	2374681	14642	154355776	19145384
2007/08	2145	3115225	16997	214388164	25843130
2008/09	2512	4601025	19497	28889809	36458565
2009/10	3120	6310144	24793	380133009	48976464
Total	X=10349	X <sup>2</sup> =19281373	Y=85512	Y <sup>2</sup> =1280621360	XY=156865779

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x \bar{X}^2}{N}} \sqrt{Y^2 - \frac{f_y \bar{Y}^2}{N}}}$$

$$= \frac{156865779 - \frac{10349 \cdot 85512}{6}}{\sqrt{19281373 - \frac{10349^2}{6}} \sqrt{1280621360 - \frac{85512^2}{6}}}$$

$$= \frac{9371831}{1196.27 \cdot 7867.93}$$

$$= 0.99$$

$$r^2_{xy} = 0.9801$$

$$P.E. = 0.6745 \cdot \frac{1 - r^2}{\sqrt{N}} = 0.6745 \cdot \frac{1 - 0.9801}{\sqrt{6}} = 0.005$$

$$6P.E. = 6 \times 0.005 = 0.030$$

Appendix-8

Calculation of correlation coefficient between shareholder's equity and loans and advances of KBL

FY	S/E (X)	X <sup>2</sup>	Loans and Advances(Y)	Y <sup>2</sup>	XY
2004/05	559	130321	11951	142826401	759905
2005/06	641	312481	12424	154355776	2039791
2006/07	863	410881	14642	214388164	3579344
2007/08	1025	744769	16997	28889809	5947796
2008/09	1364	1050625	19497	380133009	9152225
2009/10	1624	1860496	24793	614692849	15460940
Total	X=4813	X <sup>2</sup> =4509573	Y=38494	Y <sup>2</sup> =304636212	XY=36940001

$$r_{xy} = \frac{XY - \frac{X \cdot Y}{N}}{\sqrt{X^2 - \frac{f_x^2}{N}} \sqrt{Y^2 - \frac{f_y^2}{N}}}$$

$$= \frac{36940001 - \frac{4813 \times 38494}{6}}{\sqrt{4509573 - \frac{4813^2}{6}} \sqrt{304636212 - \frac{38494^2}{6}}}$$

$$= \frac{6061397.33}{805.45 \times 7594.18}$$

$$= 0.99$$

$$r^2_{xy} = 0.9801$$

$$P.E. = 0.6745 \times \frac{1 - 0.9801}{\sqrt{6}} = 0.6745 \times \frac{0.0201}{\sqrt{6}} = 0.005$$

$$6P.E. = 6 \times 0.005$$