

# **CHAPTER-I**

## **INTRODUCTION**

### **1.1 Background of the Study**

The world business scenario has been changing very fast. Most countries around the globe have effectively eliminated the state of monopolies of business. The volume of international trade has been increasing year after year. 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 institutions face significant change in a time of new alignments in domestic market and increase international competition.

With the development of communication economic progress and spread of science, and the growth of economic and political institutes, the use of money also expanded. To meet the expanded form of money finance became a powerful instrument for any change. Due to innovation of transport & communication, development of energy and manufacturing has resulted in innovation in the sphere of banking. So, Bank became the most convenient method of exchanging money.

The fundamental economic objective of the state shall be to transform the national economy into an independent and self-reliant system by preventing the available means and resources of the country from being concentrated within a limited section of society, by making arrangement for the suitable distribution of economic gains on the basis of social justice, by making such provision as will prevent economic exploitation of any class or individual, and by giving preferential treatment and encouragement to national enterprises, both private and public.

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. The size of their transaction actions 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 developments over time by financing the requirements of trade and industry in the country.

The central bank and the commercial bank play 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 monitors the spread rate 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. Main stream 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 means joint stock company. In most simple form, banking is as old as authentic history. The early bankers, the Jews in Lambardy, 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 loans and buy securities. Bank operates as financial intermediaries standing between the ultimate lenders (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 wants 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 life blood of commerce.

### ➤ **History of Banking in Nepal**

Banking services is the oldest service industry in Nepal. It has gone through various stages of evolution and development since the Vedic times (2000 to 1400 B.C.) though 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 shakadhar, 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 Katmandu valley.

In the 11<sup>th</sup> century, during Malla regime, there was an evidence of professional money-lenders and bankers. It is further believed that money-lending business, particularly for financing the foreign trade with Tibet, became quite popular. However, in the absence of any regulatory measures, the unscrupulous money lenders were known to have charged exorbitant rates of interest and other extras dues on loans advanced. These inconveniences let the prime minister Ranodip (1877-1885) to establish 'Tejarath' in Katmandu, which was a government financial institution supplying credit to the people at 5% rate of interest against security of gold, silver, and ornaments. The government servants were also entitled to take loans from 'Tejarath', repayable from their salary at the source. During the time of Chandra Shamser (1901-1929), credit facilities of 'Tejarath' were extended to some other parts of the country by opening its braches. It is believed that the so-called well-to-do

persons used to take loans from private money-lenders 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 approach by this types of clients, the professional money-lenders used to raise loans in their own names from Tejarathat 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 'Terajath' 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 especial type of clients just playing the role of middlemen between their clients and the governments institutions.

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

The need to regulate financial and monetary system increased immensely resulting in the establishment of central bank. Nepal bank 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 Ltd. 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 acts 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 or two, Nepal has gone through tremendous changes in the banking sector.

### ➤ **Meaning and Nature of Bank**

A bank is an institution, which deals with money and credit. It accepts deposits from the public and mobilizes the fund to productive sectors. Generally, bank accepts deposits from business institutions and individuals which are mobilized into productive sectors mainly business and consumer lending. Therefore, Bank is known as a dealer of money. A bank may be engaged in different types of functions such as remittance, exchange currency, joint venture guarantee, discounting bills etc. Banks are essential financial Institution in an economy. They are the principle source of credit that provide most important source of short term working capital for business and is increasing active in recent years in making long-term business loans for new plants and equipment.

The main objective of commercial bank is to mobilize ideal resources for productive use after collecting those scattered resources. Its role in economic development is so immense; it brings about grater mobility of resources to meet the emerging necessity of the economy. The essence of the commercial bank is the financial intermediate between the ultimate saver and borrowers. In other words, a bank's main function is to act as middle-man between the surplus and deficit units in the economy and as a bank like any firm is in business to make profit for its shareholders. Joint venture banks have become the heart of financial system as they hold the deposits of millions of people, government and business units, and make fund available through their lending and investing activities to individuals, business firms and government. So, the commercial banks are the most important institution for capital formation. The major problem in almost all undeveloped countries like Nepal is lack of capital formation and their proper mobilization. The importance of bank in economic life is greater .The banks accumulate scattered savings in term of deposit grant long term as well as short term loan in the several sectors. Because of these industries can be run better way and reduces import of foreign goods and increase exports. This helps the increase of foreign currency reserve. Thus, bank can be rightly interpreted as the king of business world and promoter of economic development.

➤ **Definition of Bank**

Bank is a financial intermediary accepting deposits and granting loans but a modern bank performs such a variety of functions that it is difficult to give a precise and general definition of a bank. Some definitions are as follows:

“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, 1998:4).

“A banker or bank is a person or company carrying on the business of receiving money and collecting drafts, for customers subject to the obligation of honouring cheques drawn upon them from time to time to time by the customers to the extent of the amount available on their customer” (Shekher, 1999:4).

Bank is a financial institution, which plays a significant role in the development of the country. It facilitates the growth of trade and industry and other sector of the national economy. It is a resource for economic development, which maintains the self-confidence of segments of society and extends to the people.

“A bank is a 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, 1984:49).

“The business in banking is one of the collecting funds from the community and extending credit to people for useful purpose. Banks have played a pivotal role in moving money from lenders to borrowers. Banking is a profit seeking business not a community charity. As a profit seeker, it is expected to pay dividends and other wise add to the wealth it's of shareholders” (Edmister, 1980:42).

In this way we can say that bank is an institution which accepts deposits from the public and in turn advance loan to business and personal customers. 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, banks play a vital role in developing the economy of any country. The level of overall development of a country is the level of economic growth characterizes its social, cultural, political or economical and the crux of the economic growth lies in the development of well- managed banking system. Hence banks can be considered are extremely necessary for the healthy and perennial – progress of our country. By creating and mobilizing the capital and rendering various financial service banks are contributing to the establishment and development of so many small and large- scale industries and domestic as well as international trade and commerce. Through bank refers to transaction of money, modern banks are established with which facilitates the channelling of fund 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. Beside this they discharge, various function on behalf of their customer and in turn they are paid for their services. Commercial banks undertake the payment of subscriptions, insurance premium, rent etc, in addition they purchase and discount bill of exchange, promissory note and exchange foreign currency. Furthermore commercial banks also arrange to remit money from one place to another at very low price by means of cheques, draft, swift etc. They buy and sell share and securities on behalf of customer. Banks are very important to individually business and for 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 sources from savers to users.

Commercial Bank Act,2031 has defined 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, 2031B.S.).

The important distinction that distinguishes commercial banks from all other kinds of financial institution is that it alone can hold deposit to be drawn upon by cheque. It has the power to create money and destroy money, within limits, through the use of

loans and demand deposits. Commercial banks lend money by creating demand deposit and retire loans by cancelling demand deposit.

They perform not just on but many types of function which are stated below:

1. Accepting deposits and advancing loans,
2. Making short term as well as loan term advances,
3. Underwriting shares and debentures,
4. Holding custody of valuables,
5. Operating safe deposits vaults,
6. Acting as brokers, and so on.

### **1.1.1 Profile of Subjected Banks**

#### **Himalayan Bank Limited**

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

Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings 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 our lead by introducing similar products and services. Therefore, we stand for the innovations that we 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, we believe we obviously lead the banking sector of Nepal. The most recent rating of HBL by Bankers' Almanac as country's number 1 Bank easily confirms our claim.

All Branches of HBL are integrated into Globus (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 stakeholders 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 workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- HimalRemitTM. By deputing our own staff with technical tie-ups with local exchange houses 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' needs and wants stand first. The Bank's business philosophy is "The Power to Lead".

### **Kumari Bank Limited**

Kumari Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 750 million, of which 70 % is contributed from promoters and remaining from public.

Kumari Bank Ltd has been providing wide - range of modern banking services through 9 points of representations located in various urban and semi urban part of the country, 5 outside and 4 inside the valley. The bank is pioneer in providing some of the latest / lucrative banking services like E-Banking and SMS banking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions 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 11 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also 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 door step. The bank always prioritizes the priorities of the valued customers. The Bank's business philosophy is "We do it".

## **1.2 Statement of the Problems**

Due to globalization and liberalization of economy, the number of commercial banks is increasing in Nepal. In 1990's the development of banking in both quality and quantity was satisfactory. However, subsequent development of commercial banks in quality has not satisfactory. The commercial banks are not interested in granting loan to the priority sector and deprived sector of the economy. Banking is not being easy accessibility of public in remote and village areas. Commercial banks have concentrated their operation mainly in town and capital of the country.

The main function of commercial bank is loan disbursement and 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 sectors. So, unsecured loan

and investment to unproductive sectors increases the risk of bank collapse and may cause the liquidation of the banks.

Due to cut throat competition in the country, lending is divided into various sectors. Banks are switching over from project financing to consumer financing such as housing loan, education loan, vehicle loan, professional loan, personal loan etc. Consumer financing may result in high profit for bank but quantitatively the loans are disbursed in low amount. So, the bank should not largely depend upon the consumer financing. Banking industries are facing the problem from the component of external environment such as political, legal, economics and social. The unstable politics is the main cause, which is hampering for the growth of banking sector. The corruptions made by the top-level management negligence, over staffing are the some reasons that are facing by the banks. The other common problems of both joint venture banks and state owned commercial bank is the cut through completion. Most people of Nepal are illiterate and people are unaware about the banking system. Due to the lack of effective human resources and trained manpower, growing brain is the serious problem for the existing healthy competition.

The banks are not interested in granting loan to primary and deprived sector of the economy. Banks are active only in urban sector because they see great opportunities for the minimization of profit. Rural areas are being neglected. There are only few rural development banks active in Nepal while Nepal is full of rural areas.

The problems faced by the banks can be pointed as follows:

- Liquidity is maximum
- Credit providing as the basis of particular banks policy
- Due to lack of investment sectors, banks are competing unfairly
- Due to poor credit administration, the credit recovery is ineffective
- Non performing loan is increasing highly
- The legal process of credit recovery is lengthy and ineffective

The research work intends to explore the following questions:

- What is the relationship of loan and advances, investment to total deposit and with loan loss provisioning?

- Does commercial bank follow NRB (Nepal Rastra Bank) Directive in terms of lending?
- What is the proportion of non- performing loan in total lending?

### **1.3 Objectives of the Study**

1. To measure the commercial banks lending strength.
2. To determine the impact of deposit in lending procedures.
3. To analyze the different credit facilities.
4. To recommend some measures on the basis of findings of the study to the concerned bank to improve on lending procedures.

### **1.4 Scope of the Study**

There are 25 commercial banks functioning in our country at present. But there are only few researches in lending procedures of commercial bank. Lending is one of the main functions of commercial bank where the whole banking business is rested upon. Thus the study on two commercial bank and specially in their lending procedures carry a great significance to the shareholder of the banks, to the banking professional, to the student who want to know about lending procedures of commercial bank. The proposed bank namely HBL and KBL are significantly similar in many aspects of their volume and quality of operation. This study has proposed to measure the efficiency of both banks in their lending procedures. This study adds new idea and findings about concerned commercial bank.

This study will be useful to them for acquiring the answer to the following questions:

- How funds are utilized as loans and advances?
- To what extent they are gaining?
- Is the productivity of their limited satisfactory?

### **1.5 Limitation of the Study**

This study is done for the partial fulfillment for M.B.S. degree in management. So this study has certain limitation and constraints that are given below: -

- This study is concentrates only on those factors that are related with lending procedures.
- The study is based on the available data and report is based on secondary data.
- This study has covered only recent five fiscal years starting from 2003/04 to 2007/08.
- The study has taken only concerned bank. (Himalayan Bank Ltd. and Kumari Bank Ltd.)
- Some of the statistical as well as financial tools of comparison and analysis shall be used in the study. Hence, the drawbacks and weakness of those tools may adversely affect the outcomes of the study.

## **1.6 Organization of the Study**

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

### **Chapter – I 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, scope of the study, limitation of the study and finally organization of the study.

### **Chapter – II Review of Literature**

The second chapter focuses on review of literature. It contains the conceptual framework and past research literature on lending procedures of 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. Bibliography and other annexes are also included in this chapter.

## **CHAPTER- II**

### **REVIEW OF LITERATURE**

Lots of researchers have conducted their research on the field of banking especially on their financial performance, lending procedures, lending policy, investment policy, etc. Besides this there are some books, journals, articles and dissertations regarding lending and investment. Some of these relevant studies have been reviewed below.

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

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

"Early banking system served mainly as depositories for funds, while the more modern system has considered the supply of credit for their purpose. A bank not only accepts money on deposits, but it also lends money and creates and lends its own credit. Crowther has defined a bank as "a dealer in debts-his own and of other people." Sayers states "we can define a bank as an institution whose debts (bank deposits) are widely accepted in settlement of other people's debt to each other." (Crowther, 2001:72)

Commercial Bank Act 2013 B.S. has defined that "Commercial bank means a bank which operates currency exchange transactions, accept deposits, provides loan, and performs dealing relating to commerce except banks which have specified for the co-operative, agricultural, industry of similar other specific objective." Basic sources of funds for commercial banks are capital, reserve and various types of deposits. Basic uses of funds are loans and advances and investments.

The class of financial institution 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 through the use of loans and demand deposit. Commercial banks lend money by creating demand deposits and retire loans by cancelling demand deposits.

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

Deposits may be received on current account whereby the banker incurs the obligation of paying legal tender after the expiry period or on deposit account whereby the banker undertakes to pay the customer an agreed rate of interest on it in return for withdraws. Thus a commercial banker, whether it be through current account or fixed deposit loans or by discharging this function efficiently, a commercial banker renders very valuable services to the community by increasing the productive capacity of the country of and thereby accelerating the place of economic development. He gathers the small savings of people, thus reducing to the lowest limits idle money. Then he combines their smallholdings in amounts large enough to be profitably employed in those enterprises where they are most called for and most needed. Here, he makes capital effective and gives industry the benefits of capital, both of which otherwise would have remained idle. Take for instance, the practice of discounting bills. By converting future claims into present money, the commercial banker bridges the time element between the sale and actual payment of money. This enables the seller to carry on his business without actual payment of money. This enables the seller to carry on his business without any hindrance and the buyer will get enough time to realize the money. Thus, we have seen that a banker receives deposits, which he has to repay according to his promise, and makes them available to those people who are really in need of them. He is actually distributing his deposits between the borrower and his own vaults. Herein lies the most delicate of the function of a commercial banker.” (K.C. 1974:6-7)

“Of course, one of the primary functions of development in banking is deposit 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 credit operation always go together and each is interconnected. Unless there are advances, deposits cannot rise” (Rao B. 1984:4).

“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” (Swamy & Vasudevan, 1979:527).

“The main business of banking consists of providing credit to manufactures, traders engaged in inland business and export and import business, in the 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 methods of banking whereas heart is more important in the modern social banking” (Vaidya, 2001:102).

The term "Commercial" Bank is a hold-over 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's 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 (Sethi, 2001:173).

“The Commercial Bank pool together the savings of the community and arrange for their productive use. They supply the financial needs of modern businesses. They accept deposits from the public, which are repayable on demand or on short notice. They cannot afford to invest their funds in long-term securities or loans. Their business is restricted to financing the short-term needs of trade and industry. In their day-to-day transactions they cannot afford to supply the block capital required for the purchase of fixed assets. They grant loans in the form of cash credit and overdrafts. They also render a number of subsidiary services such as collection of bills and cheques, safe keeping of valuables of their customers etc. They provide short-term accommodation by discounting the bills of exchange. Commercial banks in general advance loan for short periods to industry and agricultural” (Radhaswamy, 1979:495).

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 intentions of immediate spending on goods beyond the range of their own current receipts (Sayers, 1967:17).

Commercial banks are organized on a joint stock company system, primarily for the purpose of earning a profit. They can be either of the branches banking type with a large network of branches or have the unit banking type. Although the commercial banks attract deposits of all kind current, savings and fixed their resources 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 the purpose of 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 are created in two ways: - either by converting cash into a deposit with the bank or by borrowing from the bank and lodging 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 accounts of those selling or transferring these assets to them. And when banks reduce their holdings of such assets (i.e. sell them) demand deposits are decreased to that extent. Hence, banks are generally responsible for most of the functions 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. The longer the period of deposit, the more attractive the rate of interest. Fixed deposits are also known as time liabilities of the bank. The depositors by means of cheques, on the other hand, withdraw deposits accepted on current accounts, able any time. These are demand liabilities of the bank. As a rule, the banks do not pay any interest on these deposits. Saving bank deposits are lower rate of interest. A bank collects its funds mainly through its deposits. It pools the scattered savings of the community and thus serves as the reservoir of the community's savings.
- Making Loans and advances - The other major function of commercial bank is to make loans and advances to businessman, traders and others against documents of title to goods, collaterals and marketable securities. Loans are also made against the personal security of the borrower without a surety. 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 are allowed to the bank's customer to overdraw their current accounts up to an agreed limit, to tide over temporary financial difficulties. Cash credit granted to a customer is drawn by him as and when needed and need all at once. 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 and producers and businessmen 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 (a) issuing of bank drafts and travellers cheques etc. (b) issuing of letters of credit to its customers (c) serving as referee to the financial standing and creditworthiness of its customer (d) dealing in foreign trade by accepting or collecting foreign bills of exchange (e) providing safety vaults or lockers for the safer custody of valuables and securities of the customers (f) underwriting loans to be raised by public bodies and corporations (g) acting as a

trustee and executing the will of the deceased and (h) computing statistics and information relating to trade, commerce and industry.

- Agency services - A Commercial Bank performs certain functions as an agent for and behalf of its customers. Some of these functions relate to (a) Collection and payment of promissory notes, cheques, bills and other commercial instrument, interest, dividends, subscriptions, rents or other periodical receipts and payments like insurance premium (b) remitting of funds on behalf of customers by drafts or mail or telegraphic transfers (c) buying and selling of shares, bonds, securities, etc. on behalf of its customers and (e) acting as correspondent, agent or representative of its clients. All these function are described as agency services.

Thus, commercial banks render valuable services to the community. A country with a developed banking system has a secure foundation of industrial and economic progress. It constitutes the very life-blood of an advanced economic society. In developing economics like ours the commercial banks have undertaken what may be described as development banking. They have been called upon to play a critical developmental role in making their funds available to the priority sectors.

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

Loan is defined as a thing that is lent, especially a sum of money. Like-wise debt means a sum of money owed to somebody. However in financial terms loans or debt means principal or interest availed to he borrowers against the security. Debt means that bank owes or will lend to individual or person.

Likewise the term loan is defined as a lending. Delivery by one party and receipt by another party, a sum of money upon agreement expressed or implied, to repay it with or without interest. Any thing furnished for temporary use to a person at his request, on that condition it shall be returned or it's equivalent in kind, with or without compensation for its use.

Loan includes: -

- The creation of debt by the lender's payment of or agreement to pay money to the debtor or to a third party for him account of the debtor.

- The creation of debt by a credit to an account with the lender upon which the debtor is entitled to draw immediately.
- The creation of debt pursuant to a lender credit card or similar arrangement.
- The forbearance of debt arising from a loan: Uniform Consumer Credit Code: 3-106.

Further debt means 'principal and interest' provided to debtor by banks or 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 (Ghimire, 2005:132).

The supreme court of India has 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 (Gupta, 2002:93).

Lending is the essence of commercial banking; consequently the formulation and implementation of sound lending policies are 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 of 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 the main sources of revenue to the bank. It plays an intermediary in channelling 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.

The age old 3 Cs criteria, viz., character, capacity and capital, still hold good for today's credit appraisal. There is no mathematical formula prescribing the inputs for these 3Cs, but the mixture of 3 Cs can be on past experience, plus and minus points in the proposal and the day's national perspectives and objectives.

- Character - It is the most important consideration in loans and advances and for which there is no alternative. Post dealing of the customer reveals the character in case of existing parties. Character is not judged by the social or philanthropic work one does or the exemplary literary or cultural achievements one has to his credit, but it is that respected one commands in the business world. Good character is indicated by the honesty of the borrower. Borrower should consider the banker as a financial partner or financial doctor to counsel for which he has to present all business information to the banker without any hesitation. Trust is important in credit. If anything is hidden and later it comes to the notice to the banker, the credibility of the borrower is lost or suspected. On the other hand, there are some social stigmas, e.g. drinking which have nothing to do with business character.
- Capacity - Capacity of borrower means his business acumen and managerial ability to deal with men and matters so that he would be make effective and profitable use of funds, thereby able to repay the dues. Qualification, experience,

manoeuvring skill, past dealings of the part in bank and enquires reveal a great deal about the capacity of borrowers. The loan officer must be sure that the customer requesting credit has the authority to request a loan and the legal standing to sign a binding loan agreement. This customer characteristic is known as the capacity to borrow money. For example, in most states a minor cannot legally be held responsible for a credit agreement; thus, the bank would have great difficulty collecting on such a loan. Similarly, the loan officer must be sure that the representative from a corporation asking for a credit has proper authority from the company's board of directors to negotiate a loan and sign a credit agreement binding the corporation. Usually this can be determined by obtaining a copy of the resolution passed by a corporate customer's board of directors, authorizing the company to borrow money. Where a business partnership is involved, the loan officer must ask to see the firm's partnership agreement to determine which individuals are authorized to borrow for the firm. A loan agreement signed by unauthorized person could prove to be uncollectible and, therefore, results in substantial losses for the bank.

- Capital - Capital represents the funds invested in the business by the owners. The extent of funds provided represents their stake or involvement. More of the capital means more of their stake. Loans given to such concerns are safe where the capital provided is considerable. Where the capital is negligible and the business is mostly carried on with borrowed funds there is likelihood of owners not so committed to efficient management, since any loss would wipe off the borrowed funds and does not affect those acquired from own funds. Thus the security of assets taken for advances provides a lot of margin. In other words, capital represents margin for security. Adequate capital therefore, a must for a banker to make sound loans and advances.

## **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 any loans. Below given are the factors whereupon any prospect loan should be analyzed.

The bank should insure that the money lent by them goes to the right type of borrower and is utilized in such a way that it will not only be safe 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.

Besides safety factor it is also necessary that the money lent 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 or 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 foregoing 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 position and status of joint venture are read via Loans and Advances it has mobilized. But a profound thought highlight that only giving out Loans and Advances to the maximum extent is not only important thing. The more crucial part is the recovery of such invested funds.

All the invested time and money 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 from 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's a failure of the bank. Thus, banks pay special attention in the recovery part.

The commercial bank should regularly watch the repayment of each and every 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 instalments, 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 while giving out loans and advances to be in safe side. Loan to be supplied only against security. The bank must not supply loans 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 purpose of advancing loans and

leased assets are that of public. Banks collect deposits from public and it is very same fund that banks use to make profit and give back to the public. Thus, to prevent this public fund being misutilized and to protect the savings of public, NRB has given directives to perform all other jobs 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 heavily regulated than its non-bank competitors in the financial service industry. They are 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 credit that are issued by the Nepal Rastra Bank, The regulating 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**

Loan and advance 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 advance 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 the Nepal Rastra Bank.

### **Additional arrangement in respect of loss loan**

Even if the loan is not past due loans 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 bills 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
- ) Loans provided to the borrowers included in the backlist and where the credit information bureau blacklists 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
Pass	Loans not past due and past due up to 3 months	Loans not past due and past due up to 3 months	Loans not past due and past due up to 3 months	Loans not past due and past due up to 3 months
Sub-standard	Loans and advance 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 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 advances past due for a period of over 1 year to 3 years	Loans and advances past due for a period of over 9 months to 2years	Loans and advances past due for a period of over 6 months to 1 years
Loss	Loans and advances past due for a period of over 3 years	Loans and advances past due for a period of over 3 years	Loans and advances past due for a period of over 2 years	Loans and advances past due for a period of over 1 years

Sources: Nepal Rastra Bank

**Loan Loss Provision**

On the basis of outstanding loans and advances and bills 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

Sources: Nepal Rastra Bank

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 or misutilization of loan or whose loan has run away are also treated as bad loan and classified as non- performing loan even if they are within the due dates. For the general out look on loan policy of banks are given below:

1. If any instalment 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 long 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 restructuring loan if non- performing loan receiver submit 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 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**

Loan and advances	2001/2002	2002/2003
Fund based	40% of core capital	25% of core capital
Non- fund based	75% of core capital	50% of core capital

Banks should not maintain above limit, when loan provided under guarantees of fixed receipts, bank deposits, government securities, NRB debentures and A+ 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. “Banking Sector’s NPA alarming”. 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 stands 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” (Rawal, 2003:9).

“Central bank tightens blacklisting procedures”. NRB has issued directives to all commercial banks and financial institution ensuring greater transparency during loan disbursement. As per new provisions, all commercial the financial institutions are now required to disclose the name of loan defaulters in every six months. Until now there was no such legal system of disclosing the loan defaulter’s name. The new directives have also barred the financial institutions from lending any amount to the blacklisted defaulter and his family members. The Credit Information Bureau (CIB) can blacklist the firm, company or clear the debt within the stipulated period. As per the set criteria for blacklisting, the CIB would monitor those individuals and companies that have the principle loans of above Rs. 1 million. If the creditor fails to clear the amount within time, or is found missing the loans among others, the creditor can be blacklisted” (Kathmandu Post, 2003:9).

Due to slowdown in the world economy and deteriorating law and order situation of the country, many sectors of the economy are already sick. When any sector of economy catches cold, bank starts sneezing. From this perspective, the banking industry as a whole is not robust.

“In case of investors having lower income, portfolio management may be limited to small saving income. But on the other hand, portfolio management means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Therefore portfolio management becomes very important both for an individuals as well as institutional investors. Large investors would like to select a best mix of investment assets” (Shrestha, 2055: 13).

“A study of deposits and credits of commercial bank in Nepal” the credit deposit ratio would be 51:30 percent, other things remaining the same, in 2004 AD, which was the lowest under the period of review. So the commercial bank should try to give more credit entering new field as far as possible. Otherwise they might not able to absorb even its total expenses" (Shrestha, 2045: 12).

“Investment Planning of Commercial Banks in Nepal.” Portfolio (loan and investments) of commercial banks has been influenced by the variable securities rates. Investments planning of commercial banks in Nepal are directly traced to fiscal policy of government and heavy regulatory procedure of the central bank (NRB) so the investments are not made in professional manners. Investment planning and operation of commercial banks in Nepal has not been found satisfactory in term of profitability. To overcome this problem, she has suggested, commercial banks should take their investment function with proper business attitude and should perform lending and investment operation efficiently with the proper analyze of the project" (Shrestha, 1993: Investment planning of commercial Banks in Nepal).

Citi's corporate structure exacerbated problem. Three signatures were to get most loans approved. But if one loan officer turned you down, you would simply find another. With upper management, publishing for higher profits the credit committee rarely asked hard questions. Increasingly, procedures were treated as superfluous. Many managers believed they needed simply to check off enough items on a Risk Asset

Acceptance Criteria checklist to make a loan look good. Risk asset review teams "gave you (advance) notice, so people often wrote up memos (justifying loan) for deal after they were done" Says one banker. More and more junior banker were assigned to perform due diligence of course, changing the credit policy mechanism when the bank is not making many loans is not the hardest thing in the world to do. What will happen when the environment improves and loan demand picks up again? (Milligan/ Picker, 1992: 198).

The Asiaweek, Asia's leading English weekly published from Hong Kong, has rated Nepal's Himalayan Bank Limited, Nepal Grindlays Bank Ltd (Standard Chartered Bank Nepal Ltd) and Nepal Arab Bank Ltd among the Asia Pacific region's 500 largest banks, says an HBL press release. The list ranked the region's largest banks by assets, deposits, loans and profits. It is said that Himalayan Bank Limited has the largest share in deposits and lending among the joint venture and private commercial banks operating in Nepal. The Asiaweek states that Himalayan Bank's return on equity is the 13th highest in the whole Asia Pacific region with 37.9 percent return. Similarly, Nepal Grindlays Bank stands at 11 and Nabil Bank at 17, the release adds. ([www.nepalnews.com](http://www.nepalnews.com))

Kumari Bank Ltd, which began operations from April this year, was officially inaugurated. According to the bank, it has already realised a profit amounting to some Rs 4.9 million. The bank also claims to have mobilised deposits worth Rs 600 million even as loan investment has been put at Rs 580 million during the five month period. According to Noor Pratap Rana, Chairman of the bank, Kumari Bank aims at not only making profits but also to contribute to the interests of depositors, the national economy and the target group as defined by the government and Nepal Rastra Bank ([www.nepalnews.com](http://www.nepalnews.com))

"Project Financing Apart of Business" the investor or whether banks, financial institutions, individuals, private or government sector, most not took the proposal by making decision without having adequate judgment because sometimes they perform out of norms, related studies, policies and techniques. A project appraisal will best viable only if it has accessed through conscious analysis as well as through investment



decisions to make its macro and micro level viability effective" (Lamichhane, 46th anniversary of NRB: 145).

“When government decided to establish banks with joint ventures, two benefits were expected. First that competition would force domestic banks, such as Nepal Bank Limited and Rastriya Baniya Bank to improve their services and efficiency, second that introduction of new banking procedure methods and technology would occur” (Maldin, 1998:4).

“There has been substantial growth in the number of Joint Venture Banks in Nepal since 1990s. The basic reason behind this is the government’s deliberate policy of allowing foreign joint venture banks to operate in Nepal .Government’s liberalization policy also encourages the traditionally run domestic commercial banks to enhance their efficiency and competitiveness through modernization, mechanization, and computerization and prompt customers’ services by setting them to the exposure of the joint venture banks”(Shrestha, 1990:31).

“The existence of foreign joint venture banks has presented an environment of healthy competition among the existing commercial banks. The main beneficiary of this is the bank client. The increased competition forces the existing banks to improve their quality and extend services by simplifying procedures and by training, motivation own staff to respond to the new challenges”(Chopra, 1990).

“The joint venture banks are in a better position than local commercial banks in profit making. In an average, no foreign banks have suffered loss till now, but local banks owned negative profits”(Pradhan, 1991:13).

“Despite the increase in number, the joint venture banks are concentrated in urban centers, especially in major cities, which all their headquarters in Kathmandu alone except that of Nepal Sri-Lanka bank, which is based in Rupandehi. The trend has result in two-way effects on the operation of the government owned commercial banks in Nepal. First the comparatively attractive interest rates and services promptness of these private banks have drawn the public deposit to their side thereby reducing financial liabilities of the former. Second, as a result of reduction in the financial

liabilities the government-corporate commercial banks have been force to shut down some of their branches in the remote areas of the country. Never the less a look at activities of these joint venture banks provide a fill up in to the tremendous aid they provide to the national economy. They have been instrumental in mobilizing capital more effectively and to a large extend. Especially they have been more helpful in founding the private sector”(Facts about Nepalese Economy, 1998).

The directives asked the financial institutions to provision 100 percent on collateral that the banks accept themselves after they fail to action. As per the directive, the banks cannot place such assets in their income account until such collateral is converted into cash. Prior to directive, banks used to provision for losses on non- banking assets only if amount recovered from auctioning of collator is not to cover the principal and interest.

“Why does the loan become defaulter?” This study finds out the causes that makes loan default. “When the due date is over then the loans become default. But why do the due dates be over? Generally increase in interest rates; decreases in economic actives cause decrease in the capacity of debtor and sometimes the debtor knowingly do not pay back the loan. Other than these reasons in the context of Nepal lack of credit policy, lack of information about the loan holder (Three C's = Capacity, Character and Capital), unhealthy competition and small market area, the cause's loan defaults. Default loans increases the resources mobilization cost and reduces the profit earning capacity of a bank. Therefore increases in default loans are the indicator of problematic situations to the banks” (Neupane, NRB 46th Anniversary: 142).

#### **2.3.4 Review of the Previous Studies**

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

Ojha (2005),on “Lending Practices” study on Nabil Bank Limited, Standard Chartered and Himalayan Bank Limited” has found out that the measurement of lending strength in relative term has revealed that the total liability to total assets of Nabil has the highest ratio. However, the performance of other two banks has not deviated far from

the mean ratio of Nabil and the combined average. Nabil tendency to invest in government securities have resulted with the lowest ratio loans and advances to total assets ratio. The steady and high volume of loans and advances throughout the year. The ratio of loans and advances and investment to deposits ratio has measured the portion of total deposits that is used to increase the income of the banks irrespective of the portfolios of its application. Nabil has deployed the highest proportion of its total deposits in earning activities and this ratio is significantly above the ratio of other two banks. The combined ration is highly deviated from the mean ratio of Nabil and Himalayan. This is the indicative of that in fund mobilizing activities Nabil is significantly better than Himalayan.

Similarly the absolute measures of lending strength have revealed that the mean volume of net assets and deposit is highest in SCBL with moderate variation. The volume of net assets of HBL is the least due to the low share capital, reserves and surplus in its capital mix. But the volume contributed by HBL in case of loans and advances is highly appreciable as compared to its net assets. The volume of loans and advances contributed by Nabil is the greatest in the study period. Nabil has the best contribution in productive as well as industrial sector of economy.

He has further concluded that the overall liquidity strength of Nabil can be considered the best among the banks. However the liquidity risk arising from interest rate in Nabil is the most likely. Since the market is highly sensitive towards the interest rate and Nabil has generally been offering low interest rate as compare to other banks. The analysis of lending strength of HBL in loans and advances is the best. However loans and advances, investments to deposits ratio have upgraded the performance of Nabil. If HBL succeeded in collecting the less cheaper sources of fund in future, the lending strength of HBL would push the performance of Nabil and SCBL far behind in the coming future. Also the contribution made by HBL in the productive sector of economy is highly appreciable and the best among these three commercial banks.

He has used different statistical tools like standard deviation, correlation, trend analysis and financial tools for the data analysis and presentation. Only secondary data has been used for the study, the overview of the theoretical aspect of the lending

practice of the banks has not been analyzed. He has taken five years data from 1997 to 2005 for study of lending practices of NBL, SCBL and HBL.

Gautam (2006), 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 preferences 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.

Deeja (2005), conducted a study "A comparative study of the financial performance between NSBL and NBBL" has figured out the findings, conclusion and recommendations as follows.

He has concluded that NB bank has better turnover than NSBL in terms of loans and advances to total deposits ratio, loans and advance to fixed deposit ratio. NB bank has better utilized the resources in income generating activity than NSBL. He has recommended following the liberal lending policy, developing for seeking new profitable investment and granting midterm loans. He has further recommended bank to become more market oriented and carefully follow the safety principle to avoid risk.

Dhungana (2006), conducted a study "A Comparative Study on investment Policy Of Nepal Bangladesh Bank Limited and Other Joint Venture Banks" concluded that NBBL has not good deposit collection. It has not made enough cash and negligible amount of investment in government securities. NBBL has highest loan and advances to total deposits ratio, loan and advances to total working fund ratio, lowest loan loss ratio and higher investment on share and debenture to total working fund ratio. NBBL has followed stable policy. NBBL is not in better position on regarding its on balance transaction. Lending position, investment position and net profit position of NBBL is

not better in compare to HBL. But it has better position in comparison to NSBL. He suggested increasing the liquidity of NBBL, to invest in government securities instead of keeping idle fund. He also suggested providing project-oriented approach. He suggested NBBL for developing effective portfolio management. He also suggested developing innovative approach for bank marketing upgrades the banking facility, liberal lending policy and effective cost management strategy.

Lamshal (2005), on “A Comparative Financial Statement Analysis of Himalayan Bank Limited and Nepal Grindlays Bank Limited” has concluded that liquidity ratios of both the banks are fluctuating and are not satisfactory. So, the banks are suggested to keep the reasonable amount of liquidity. The banks maintain their short-term solvency position. HBL is not able to maintaining proper capital adequacy position. HBL is suggested to involve social activities. NGB has been involved for social activities.

Prashad (2003), had conducted on “A Comparative Study in the Financial Performance of Nepal Indo-Suez Bank Ltd and Nepal Grindlays Bank Ltd”, NGBL has been able to gain a higher market share in case of deposits or compare to NISBL. NISBL has better utilization of resources. NISBL has maintained the ratio of cash and bank balance to total deposit considerably higher than that of NGBL. NISBL and NGBL are not seen to be successful in aspect of foreign investment in Nepal, by means of their wide international banking networks. NGBL is maintaining more amount as money at call or at short notice than of NISBL. Supplementary capital of NISBL and NGBL seems insufficient and comparatively NGBL profitability position is better then that of NISBL. So, NISBL should utilize its risks assets and share holders found to gain highest profit margin and reduce its expenses for being more profitable.

Khadka(2006),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 Indosuez 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 loans and advances to get success in competitive banking environment. The largest item of the bank in the asset side is loans and advances. . Negligence in administrating this asset 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.

Khadka (2007), in her thesis on "A Comparative Study on Investment Policy of Commercial Banks" in which she has taken Nabil, Everest and SBI banks as CBs and taken as average industry to compare with the NBL has found out that there is not much difference between the mean ratio of loan and advances to current assets of NBL and other CBs. The mean ratio of NBL is slightly higher than that of other CBS.

Shrestha (2005), in her thesis paper "Impact and implementation of NRB guidelines "(directives on commercial banks- a study of Nabil Bank and Nepal SBI Bank Limited) found out that both the Nabil Bank and Nepal SBI Bank have been fully implementing the NRB'S directives. Capital adequacy ratio of Nabil Bank and SBI Bank are 13.40% and 12.86% respectively. Banks are following the directives but in some cases like supplementary capital and balances at NRB there is shortfalls. The

excess amount of core capital in supplementary capital and 1% excess amount of total deposits in balance at NRB can compensate this shortfall. The banks have categorized the loan amount into four different categories as per NRB's directives. The increasing loan loss-provisioning amount decreases the profit of the banks. The change in the single borrower limit has brought down the limits of the fund based and non-fund based loans which have resulted to reduce loan exposure to banks.

In her study she has recommended that both NBL and SBI Banks to increase its supplementary capital as it has shortfall in comparison with NRB guideline and to meet the supplementary capital adequacy ration even though it can be compensated by the excess amount of core capital. The supplementary capital needs to be increased by Rs. 122.74 million in Nabil Bank and Rs. 125.57 Million in Nepal SBI Bank .She says liquidity and profitability are like two wheels of one cart so banks cannot run in the absence of any one of them. One can be achieved only at the cost of the others. Only liquid banks can attract lower core deposits, which help in reducing interest expenses and give loan to good customer at lower rate, which results in requirement of less provision and high net profit. So banks should increase their primary reserve now to maintain the liquidity risk due to scrap out the secondary reserves. On the basis of finding, Nabil Bank has a shortfall of Rs. 140.74 Million thus Nabil has to increase its balance at NRB by such amount for better performance even after adding 1% excess amount of cash of total deposit.

Bajracharya(2007), reveals in his thesis "Evaluation of Financial Patterns of Nepalese Commercial Banks" that the trend of deposit is increasing, the percentage change in each year is decreasing, commercial banks are contributing to enlarge the gap between collection and utilization of resources. Commercial banks are liquid oriented to benefit the national development. In proper utilization of resources in creating shortfall in economic up liftment.

Dhital (2008), in his thesis "A comparative study on investment policy of Standard Chartered Bank Ltd. 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 asst 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 ratios of SCBNL are 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.

Karki (2006), has mentioned the causes of increasing trend of non- performing loan. She identified the major causes such as “Poor loan analysis, guarantee loan system, depreciation on valued assets, misuse of loan, lack of regular supervision of loan.”

Nepal Rastra Bank (NRB) has issued directives to all commercial banks and financial institution ensuring transparency during loan disbursement. As per provision, all commercial banks as well as financial institutions are now required to disclose the name of loan defaulters in every six months. Until now there was no such legal system of disclosing the loan defaulter’s name. The new directives have also barred the financial institutions from lending any amount to the blacklisted defaulter and his family members.

## **2.4 Research Gap**

There is a certain gap between the present research and past research. Previous research conducted generally on lending procedures of joint venture banks. The gap between earlier studies and this study is that, this study analysis the lending procedures of HBL and KBL. One is joint venture bank i.e. HBL and other is not i.e., KBL. Previous researches analyzed the lending procedures by using secondary source of information in terms of lending or credit procedures. But actually speaking, lending procedures can be determined by various factors. In this study efficiency of lending is measuring by



lending procedures, trend analysis and various statistical tool used in analyzing questionnaire. Among of them, primary analysis in terms for lending may be the strong determinant for lending in banks. In present context, these are the heart issue in Nepalese Commercial banks. The previous researchers could not submit the present fact. Present study tries to define lending procedures by applying those various facts. It can be very useful or important in this area. Thus, present study may be valuable piece of research work.

## **CHAPTER- III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

“Research methodology is the way to solve systematically about the research problem” (Kothari, 1990:13). 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 and figures. Research methodology describes the methods 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, 1992:149)

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 is 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, time frame 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 a 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 the purpose of 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, 2001:39).

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 selecting the research problem
4. Extensive literature survey
5. Design of the 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 project has been selected as “Lending Procedures of HBL and KBL” with a tentative objective of highlighting and analyzing the lending procedures 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 recommendations have been kept in chapter-5.

Research methodology describes the methods and process applied in the entire studies. A research study can produce 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 examine and evaluate the financial performance 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 task of defining the research problem” (Ibid). In other words, “A research design is the arrangement of conditions and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure”(Claire, 1967:50).

Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research objectives through analysis of data. The first step of the study is to collect necessary information and data concerning the, study. Therefore, research design means the definite procedure and techniques, which guides the study and the ways to do the study. Infact, it is the specific presentation of the various steps in research process. These steps include the selection of a research problem, presentation of the 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.

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

This study is based on five years financial data of HBL and KBL starting from 2003/04 to 2007/08 B.S.

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

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 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 25 commercial banks functioning in our country at present. For this study only two banks are taken as sample on the basis of good financial performance from joint venture bank (HBL) and Nepalese promoters banks (KBL).

1. Himalayan Bank Limited(HBL)
2. Kumari Bank Limited(KBL)

### **3.6. Data Collection Procedure**

The annual reports of respective banks were collected from their respective officers. NRB reports were 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 in the bibliography.

### **3.7 Data Analysis Tools**

The data presented in the study are analyzed by the following tools.

#### **❖ Financial tools**

“Financial analysis is the starting point for making plans before using any sophisticated and budgeting procedures”(Pandey, 1999:108).

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 a 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”.

#### **Ratio Analysis**

“A ratio is a quotient of two mathematical expressions. Establishment of quantitative relation of data furnished by the financial statement is called ratio analysis. In other words, a financial ratio is the mathematical expression of relationship of two accounting figures. It helps in taking decision since it helps to establish relationship among various ratios and interpretation thereon. Analysis and interpretation of various ratios should give experienced, skilled analysis better understanding of financial condition and performance of the firm than they would obtain from analysis of the financial data alone”(Vanhorne, 1997:759).

“A ratio is simply one number expressed in terms of another and as such it expressed the quantitative relationship between any two numbers. Ratio can be expressed in terms of

percentage, proportion and as a coefficient In other words, a financial ratio is the mathematically expression of relationship of two accounting figures.” A single ratio in itself does not indicate favourable or unfavorable conditions. It should be compared with some standard” in other words, a financial ratio is the mathematical expression of relationship of two accounting figures. It helps in taking decision since it helps to establish relationship among various ratios and interpretation thereon.” The technique of ratio analysis is a part of the whole process or analysis of financial statements of any business of Industrial concern specially to take varied facts of a business unit. Just as the blood pressure, pulse and temperatures are the measures of the health of an individual, so that ratio analysis measures the economic of financial health of business concern. Thus the technique of ratio analysis is of a considerable significance in studying the financial stability, liquidity, profitability and the quality of the management of the business and industrial concerns” (Roy, 1979:97).

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 them 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 in 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 and Investment to Total Deposit Ratio
- Loans and Advances to Total assets Ratio
- Investment to Loans and Advances and Investment 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 Loan and Advances Ratio
- Non-Performing Loans to Total Loans and Advances Ratio
- Interest Income from Loans and Advances to Total Income Ratio
- Interest Suspense to Total Interest Income from Loans and Advances Ratio
- Loans and Advances to Total Deposit 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. With out 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 techniques used to facilitate the analysis and interpretation of numerical data secured form 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 phenomenons. The correlation coefficient between two variables describes the degree of relationship between those two variables. It measures the increase or decrease in one variable due to increase or decrease in other variables .Simply stated, correlation is a statistical tool with the help of which we can determine whether or not 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:

$$r_{xy} = \frac{XYZ - \frac{X \cdot Y}{N}}{\sqrt{X^2Z - \frac{X^2 \cdot N}{N}} \sqrt{Y^2Z - \frac{Y^2 \cdot N}{N}}}$$

Where,

N = No. of observation of X and Y

X = Sum of the observations in series X

Y = Sum of the observations in series Y

X<sup>2</sup> = Sum of the observations in series X

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

XY = Sum of the product of the observations 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:

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

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 6 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 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 behaviour of the dependent variable. It is square of correlation coefficient.

### **4. Regression Analysis**

The meaning of the word "regression" is stepping or returning back to the average value. The term was first developed by Sir Francis Galton in 1877. These days there is growing tendency of the modern writers to use the term estimating line instead of regression line because the expression estimating line is more clarificatory in character. We can explain the few definitions of the term regression:

"Regression is the measure of the average relationship between two or more variables in terms of the original units of the data." -Blair.

"The term regression analysis refers to the methods by which estimates are made of the values of variables from knowledge of the values of one or more other variables and to the measurement of the errors involved in the estimation process." -Morris Hamburg.

Regression analysis is used as a tool of determining the strength of relationship between two variables. Thus, it is a statistical device, with the help of which we can predict the value of one variable when the value of other variable is known the unknown variable, which we have to predict, is called dependent variable and the variable which value is known is called independent variable (Shrestha & Silwal, 2057:249-250).

The regression equation of y on x is expressed as:

$$Y_c = a + bx$$

Where,

$Y_c$ =value of y computed from the relationship for a given x.

“a” and “b” are constants and also known as the parameters of the line. The value of “a” determines the distance of the line directly above or below the origin, while the value of the line i.e. the change in x. X is an independent variable.

## **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 liability into assets by way of its 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 assets liability management used to determine the lending policy of the commercial banks.

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

Loan and advance to total assets ratio reflects the extent to the bank is successful in mobilizing its total assets on loan and advance for the purpose of income generating. Loan and advance includes total loan and advance and total assets includes current assets and fixed assets, investment on shares, miscellaneous assets, loan and advances etc.

It is calculated by dividing loan and advances by total assets.

$$\text{Loan and Advance to Total Assets Ratio} = \frac{\text{Loan and Advance}}{\text{Total Assets}} \times 100$$

**Table 4.1**

**Loan and Advance to Total Assets Ratio of HBL**

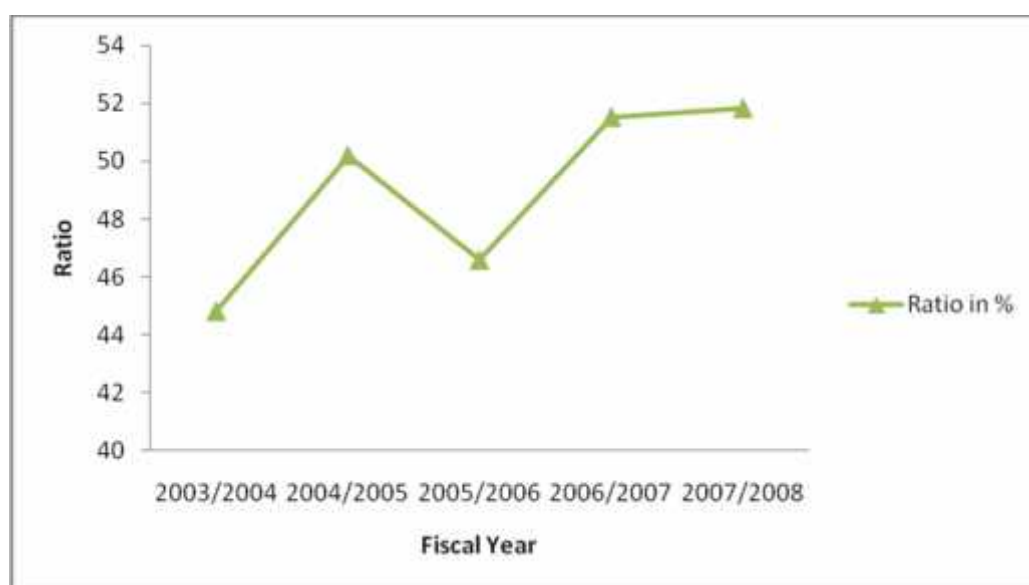
(Rs. in millions)

<b>Fiscal Year</b>	<b>Loan and Advance</b>	<b>Total Assets</b>	<b>Ratio in %</b>
2003/2004	10844	24198	44.81
2004/2005	12919	25729	50.21
2005/2006	13451	28871	46.59
2006/2007	15761	30579	51.54
2007/2008	17793	34314	51.85
Average			49.02

Source: Annual Reports of HBL

**Figure 4.1**

**Loan and Advance to Total Assets Ratio of HBL**



From the table 4.1, it is clear that FY 2007/08 has the highest contribution to loan and advances in total assets with (51.85%). The lowest is in FY& 2003/04 with the ratio of (44.81%). Average ratio is 49.02% when compared its average ratio the ratio is below average for the year 2003/04, 2005/06 and above average for the year 2004/05, 2006/07 and 2007/08.

**Table 4.2**

**Loan and Advance to Total Assets Ratio of KBL**

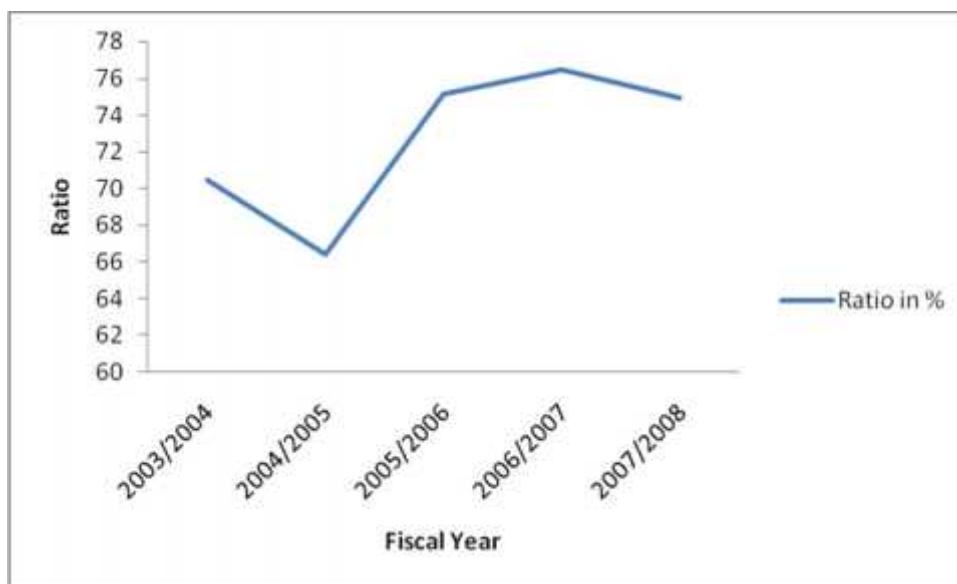
(Rs in millions)

<b>Fiscal Year</b>	<b>Loan and Advance</b>	<b>Total Assets</b>	<b>Ratio in %</b>
2003/2004	2105	2986	70.50
2004/2005	3649	5494	66.42
2005/2006	5590	7437	75.16
2006/2007	6892	9010	76.49
2007/2008	8929	11918	74.92
Average			72.69

Source: Annual Reports of KBL

**Figure 4.2**

**Loan and Advance to Total Assets Ratio of KBL**



From the table 4.2, it is clear that FY 2006/07 has the highest contribution to loan and advances in total assets with (76.49%). The lowest is in FY& 2004/05 with the ratio of (66.42%). Average ratio is 72.69% when compared its average ratio the ratio is below average for the year 2003/04, 2004/05 and above average for the year 2005/06, 2006/07 and 2007/08.

By comparing the above two table it shows the loans and advance to total assets of KBL is higher than HBL. That means KBL has good lending performance. Similarly, the ratio of HBL is maximum i.e.51.85% in the year 2007/08 and the ratio of KBL is maximum i.e. 76.49% in the year 2006/07.

#### **4.1.2 Loans and Advance and Investment to Total Deposit Ratio**

Loans and advances and investments are the major area of fund mobilization. This is the major area where the funds collected as deposits are channelled. The first part loans and advances is more crucial and also bears more risk than investments but also gives the higher return where as the second half investment has lesser risk and gives the lower return in compared to loans and advances. Loans and advances and investments to total deposits ratio indicates the firm's funds mobilizing power in gross. Any idle deposit means loss to the company. Thus, this ratio measures how well the deposits have been mobilized. In other words, we can say that this ratio measures what part of deposits are generating income for the company to give out interest to the deposits and also make profit.

**Table 4.3**

#### **Loan and Advance and Investment to Total Deposit Ratio of HBL**

(Rs in millions)

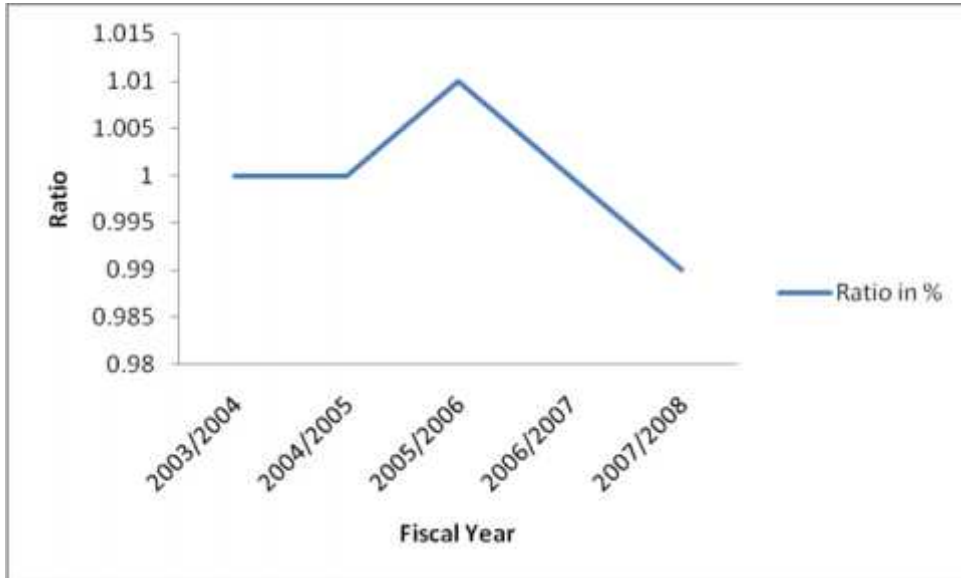
<b>Fiscal Year</b>	<b>Loan and Advance And Investment</b>	<b>Total Deposit</b>	<b>Ratio</b>
2003/2004	21020	21007	1.00
2004/2005	22211	22010	1.00
2005/2006	25143	24814	1.01
2006/2007	26651	26490	1.00
2007/2008	29615	30048	0.99
Average			1

Source: Annual Reports of HBL



**Figure 4.3**

**Loan and Advance and Investment to Total Deposit Ratio of HBL**



**Table 4.4**

**Loan and Advance and Investment to Total Deposit Ratio of KBL**

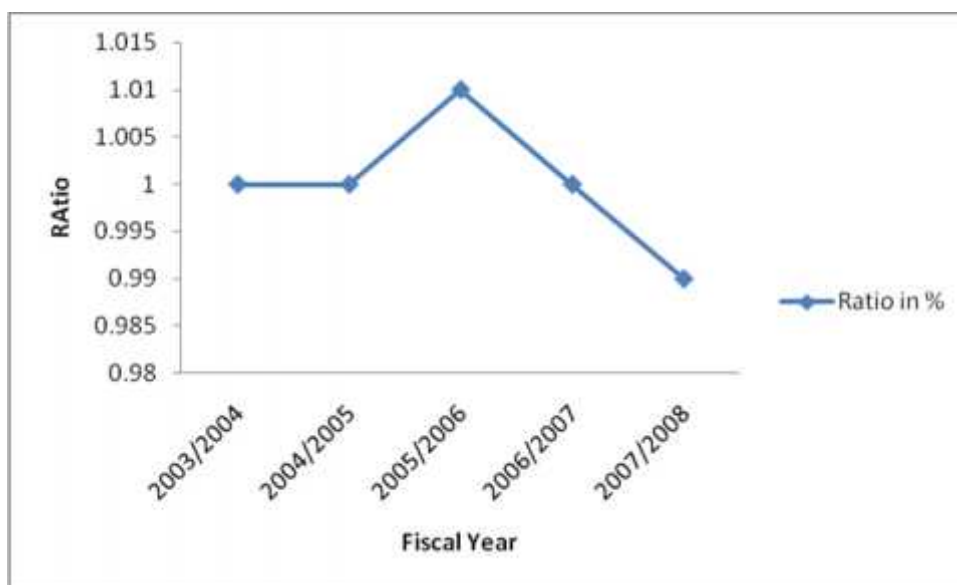
(Rs in millions)

<b>Fiscal Year</b>	<b>Loan and Advance And Investment</b>	<b>Total Deposit</b>	<b>Ratio</b>
2003/2004	2528	2513	1.00
2004/2005	4632	4807	0.96
2005/2006	6780	6268	1.08
2006/2007	8286	7768	1.06
2007/2008	10607	10557	1.00
Average			1.02

Source: Annual Reports of KBL

**Figure 4.4**

**Loan and Advance and Investment to Total Deposit Ratio of KBL**



The above table shows the ratio of Loans and Advances and investments to total deposits. This means the portion of deposit being mobilized to generate income. The above table shows the loans and advance and investment to total deposit of KBL is higher than HBL. That means KBL has good lending performance. Similarly, the ratio of HBL is maximum i.e.1.01 in the year 2005/06 and the ratio of KBL is maximum i.e. 1.08 in the year 2005/06. And since the ratio is above 1, it refers that none of the deposit is idle. There is maximum utilization of the collected funds.

**4.1.3 Investment to Loan and Advances and Investment Ratio**

This ratio measure the contribution made by investment in total amount of loan and advances and investments. The proportion between investment and loans and advances depicts the management attitude towards risk assets and safety assets. This also measures the risk to the certain banks. The high ratio indicates the mobilization of funds in safe area and vice versa. However, safety does not provide with satisfactory return, or we can say that “no risk no gain”. Thus, a compromising ratio between risk and profit should be maintained.

**Table 4.5**

**Investment to Loan and Advances and Investment Ratio of HBL**

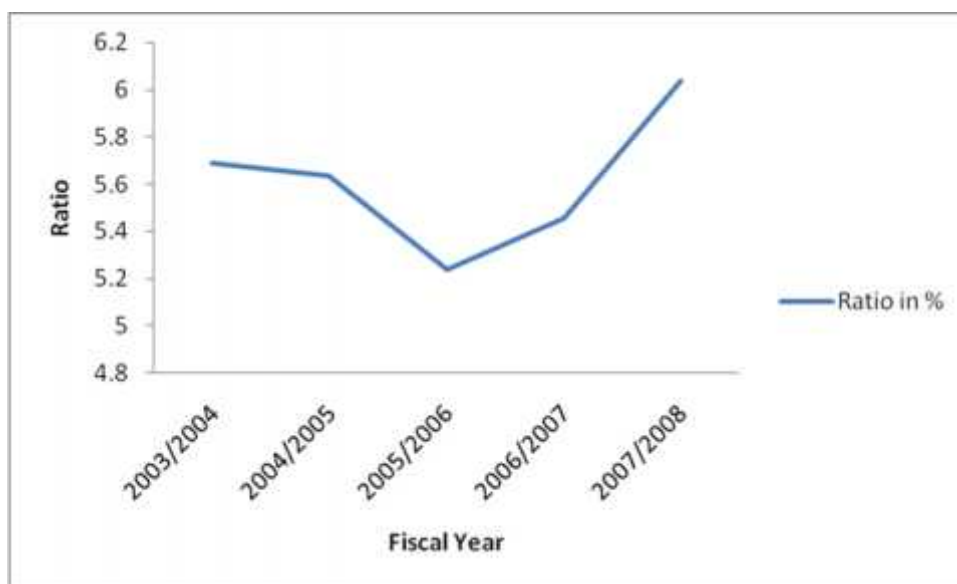
(Rs. in millions)

<b>Fiscal Year</b>	<b>Investment</b>	<b>Loan and Advance And Investment</b>	<b>Ratio</b>
2003/2004	10175	21020	0.48
2004/2005	9292	22211	0.42
2005/2006	11692	25143	0.46
2006/2007	10889	26651	0.41
2007/2008	11822	29615	0.40
Average			0.43

Source: Annual Reports of HBL

**Figure 4.5**

**Investment to Loan and Advances and Investment Ratio of HBL**



**Table 4.6**

**Investment to Loan and Advances and Investment Ratio of KBL**

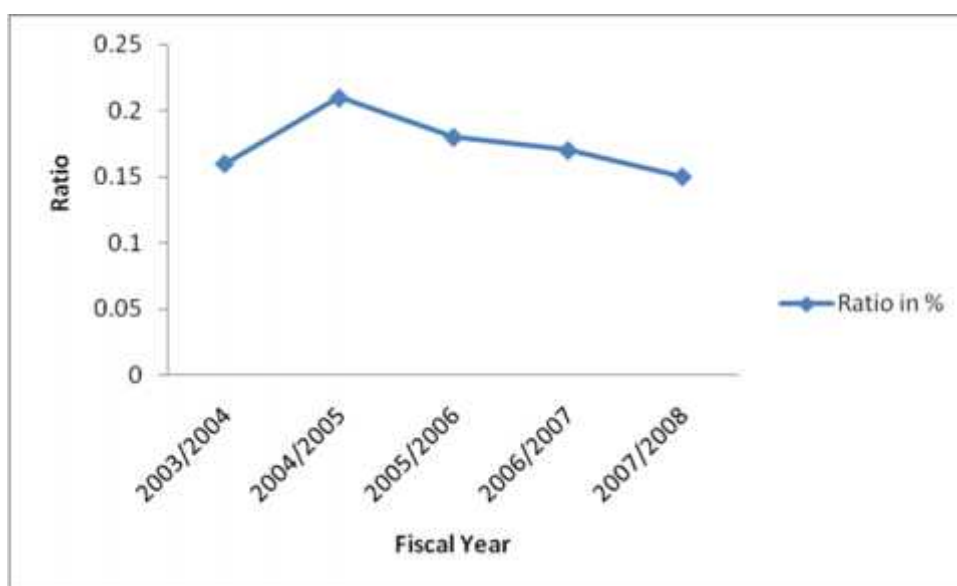
Rs. in millions

<b>Fiscal Year</b>	<b>Investment</b>	<b>Loan and Advance And Investment</b>	<b>Ratio</b>
2003/2004	423	2528	0.16
2004/2005	983	4632	0.21
2005/2006	1190	6780	0.18
2006/2007	1394	8286	0.17
2007/2008	1678	10607	0.15
Average			0.17

Source: Annual Reports of KBL

**Figure 4.6**

**Investment to Loan and Advances and Investment Ratio of KBL**



The above table shows the ratios of investment to loan and advances and investments. The ratios of HBL are the highest throughout the study period. The average mean ratio of HBL is 0.43 and KBL is 0.17. HBL has registered the higher ratio in the F/Y 2003/04 i.e. 0.48 and KBL has registered the higher ratio in the F/Y 2004/05 i.e. 0.21. This indicates it has lowest degree of investment in risk assets.

#### 4.1.4 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 shareholders equity shows how far the shareholder's equity has been able to generate assets to multiply its wealth. This also measures the success of converting liability into assets and measures size of the business.

**Table 4.7**

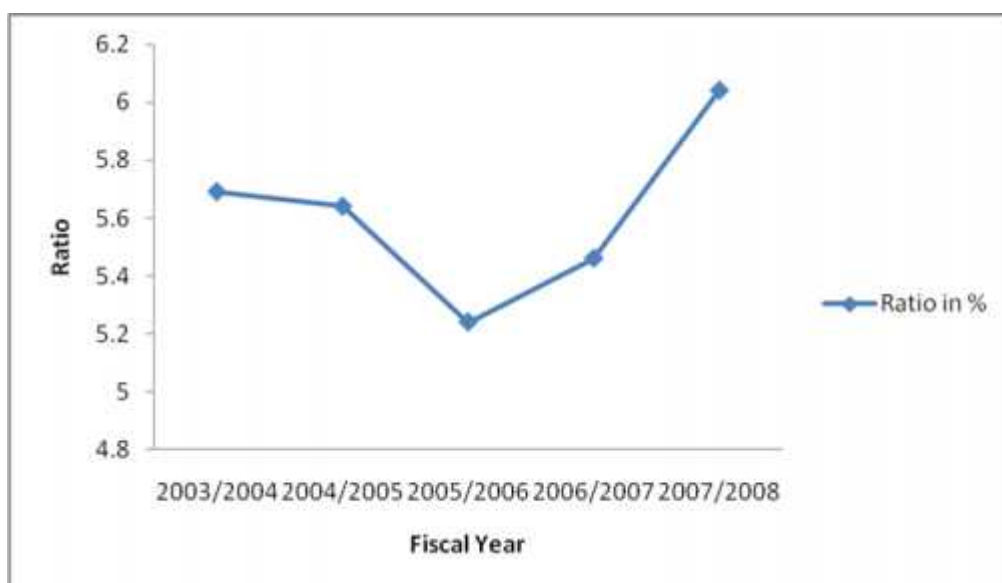
**Loans and advance to Shareholder's Equity Ratio of HBL**

Fiscal Year	Loan and Advance	Shareholder's Equity	Ratio in%
2003/2004	10844	1905	5.69
2004/2005	12919	2291	5.64
2005/2006	13451	2568	5.24
2006/2007	15761	2885	5.46
2007/2008	17793	2942	6.04
Average			5.61

Source: Annual Reports of HBL

**Figure 4.7**

**Loans and advance to Shareholder's Equity Ratio of HBL**



**Table 4.8**

**Loans and advance to Shareholder's Equity Ratio of KBL**

(Rs. in millions)

Fiscal Year	Loan and Advance	Shareholder's Equity	Ratio in %
2003/2004	2105	361	5.83
2004/2005	3649	559	6.53
2005/2006	5590	645	8.67
2006/2007	6891	863	7.98
2007/2008	8929	1025	8.71
Average			7.54

Source: Annual Reports of KBL

**Figure 4.8**

**Loans and advance to Shareholder's Equity Ratio of KBL**

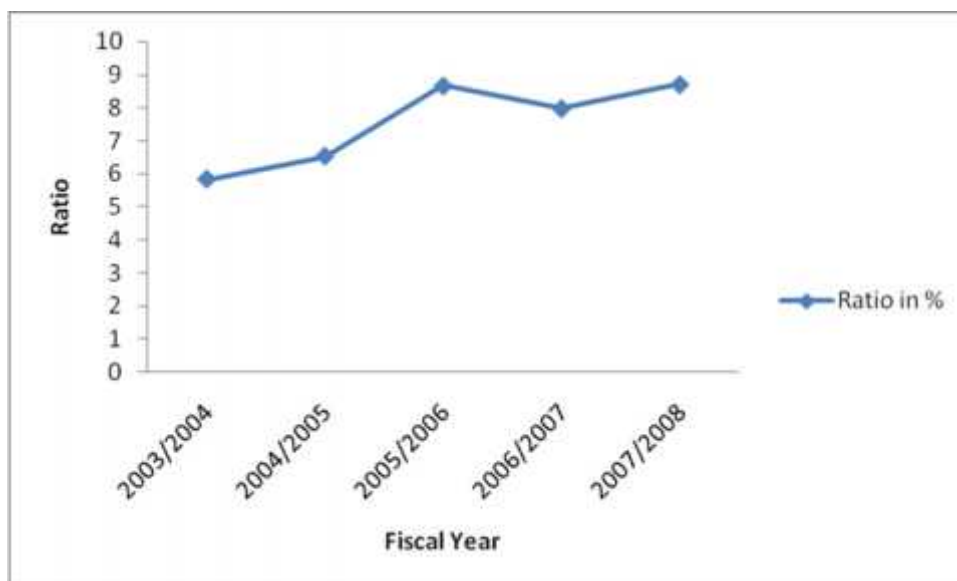


Table 4.7 and 4.8 shows the ratios of loans and advances to shareholder's equity of HBL and KBL. The ratios are increasing trend in KBL. KBL has higher average mean than HBL (7.54%>5.61%). KBL has been able to generate high volume of loan and advances than HBL. If the ratios are below the combined mean, 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 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

### 4.2.1 Loan Loss Provision to Total Loan and Advance

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 is 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 types 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- loans, doubtful loans and bad loans respectively. Loan loss provision occupies the large share in the total provision. Presented in the profit & loss account and definitely decrease the profit of the company. Since according to the NRB directives 1% provision is to be provided for all good loans, it does get a large portion of the total loan loss provision.

**Table 4.9**

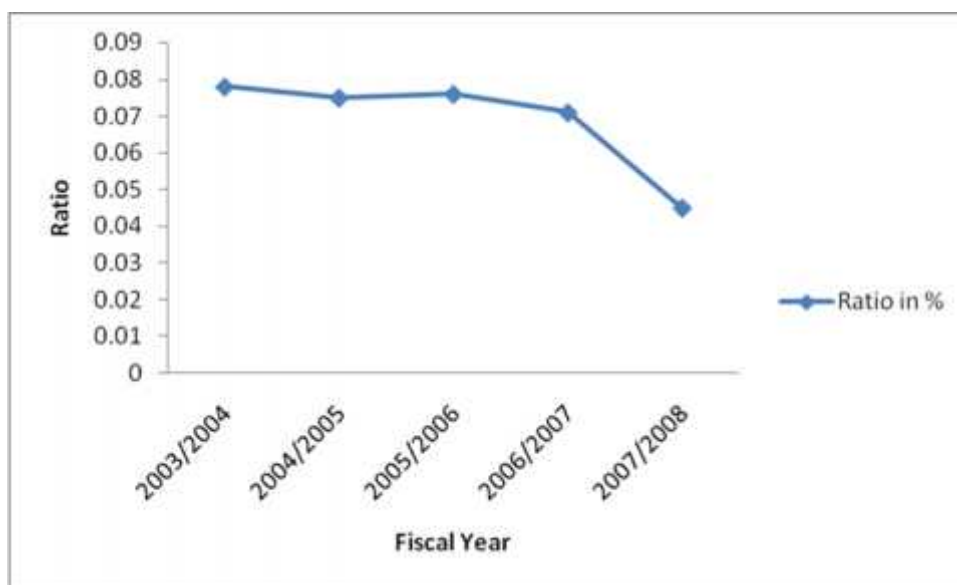
**Loan Loss Provision to Total Loan and Advance of HBL**

<b>Fiscal Year</b>	<b>Loan Loss Provision</b>	<b>Loan and Advance</b>	<b>Ratio</b>
2003/2004	843	10844	0.078
2004/2005	967	12919	0.075
2005/2006	1026	13451	0.076
2006/2007	1119	15761	0.071
2007/2008	795	17793	0.045
Average			0.069

Source: Annual Reports of HBL

**Figure 4.9**

**Loan Loss Provision to Total Loan and Advance of HBL**



**Table 4.10**

**Loan Loss Provision to Total Loan and Advance of KBL**

(Rs. in millions)

<b>Fiscal Year</b>	<b>Loan Loss Provision</b>	<b>Loan and Advance</b>	<b>Ratio</b>
2003/2004	32	2105	0.015
2004/2005	48	3649	0.013
2005/2006	96	5590	0.017
2006/2007	115	6891	0.016
2007/2008	133	8929	0.015
Average			0.015

Source: Annual Reports of KBL



**Figure 4.10**

**Loan Loss Provision to Total Loan and Advance of KBL**

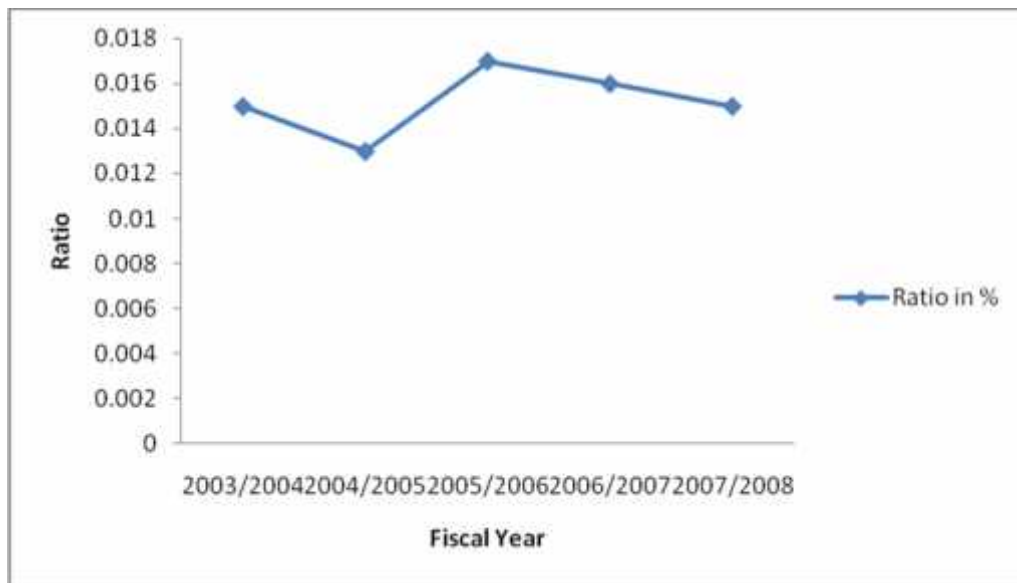


Table 4.10 shows that KBL has the lowest average mean ratio of loan loss provision to HBL. KBL has the lowest mean ratio of loan loss provision to total loan i.e. 0.015. All the commercial banks have not consistency in their mean ratio in different years. The ratio of HBL is in decreasing trend but the ratio of KBL is in fluctuating trend. The low ratio indicates the good quality of assets (loans) in the total volume of loans and advances whereas high ratio indicates more risky assets (loans having chances of default) in the total volume of loans and advances.

**4.2.2 Non-Performing Loans to Total Loans and Advances Ratio**

As the NRB directives given to the joint venture banks, sub-standard, doubtful and bad loans are categorized under non- performing loans. Increase 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 is around 16%. Therefore, there is no doubt that it has a serious implication on economic performance of the country” (Dhungana, 2058:13).

**Table 4.11**

**Non-Performing Loans to Total Loans and Advances Ratio of HBL**

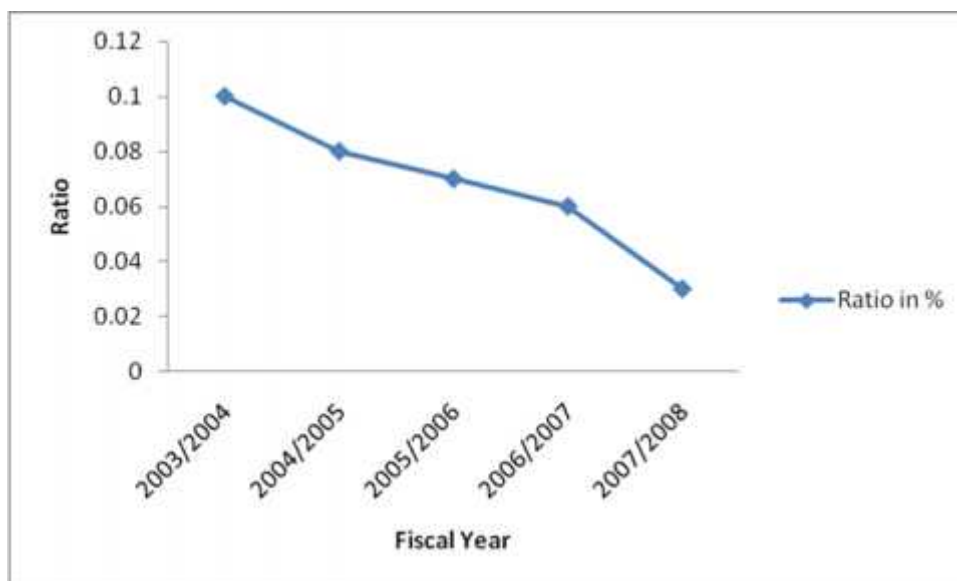
(Rs. in millions)

<b>Fiscal Year</b>	<b>Non-Performing Loan</b>	<b>Loan and Advance</b>	<b>Ratio</b>
2003/2004	1093	10844	0.10
2004/2005	1147	12919	0.08
2005/2006	1001	13451	0.07
2006/2007	1040	15761	0.06
2007/2008	641	17793	0.03
Average			0.068

Source: Annual Reports of HBL

**Figure 4.11**

**Non-Performing Loans to Total Loans and Advances Ratio of HBL**



**Table 4.12**

**Non-Performing Loans to Total Loans and Advances Ratio of KBL**

<b>Fiscal Year</b>	<b>Non-Performing Loan</b>	<b>Loan and Advance</b>	<b>Ratio</b>
2003/2004	36	2105	0.017
2004/2005	28	3649	0.007
2005/2006	53	5590	0.009
2006/2007	64	6891	0.009
2007/2008	66	8929	0.007
Average			0.009

Source: Annual Reports of KBL

**Figure 4.12**

**Non-Performing Loans to Total Loans and Advances Ratio of KBL**

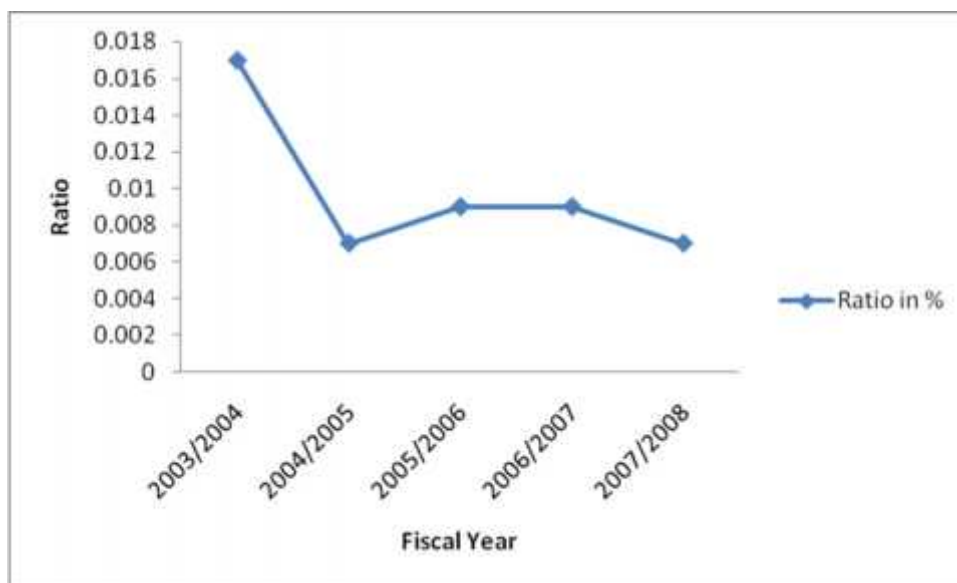


Table 4.12 exhibits that the non- performing loan to total loans and advances ratio of the concerned banks. The average mean ratio of HBL is high i.e. 0.068 than KBL i.e. 0.009. HBL has maintained a low ratio of 0.003 in the F/Y 2007/08 than KBL i.e. 0.007 in the F/Y 2007/08. HBL has reduced its non performing loans by large percentages during the five years of period from 10% to 3%.

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

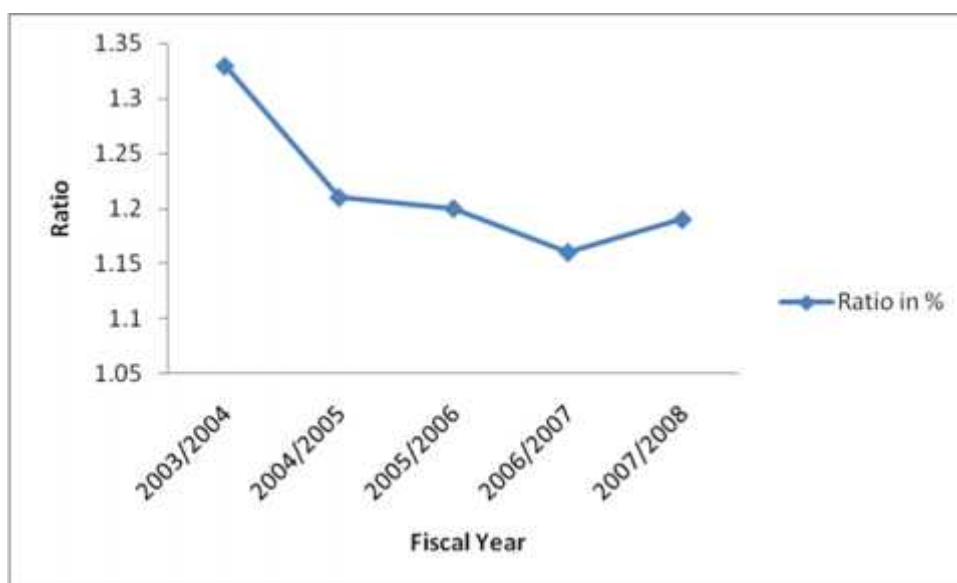
Income is one of the most important parts of any business organization. Interest income occupies a greater portion of the total income in a banking business. This ratio measures the volume of interest income in total income. It helps to measure the banks performance on other fee-based activities also. The high ratio indicates the high contribution made by lending and investment and high contribution by other fee based activities in total income.

**Table 4.13**  
**Interest Income to Total Income Ratio of HBL**

Fiscal Year	Interest Income	Total Income	Ratio
2003/2004	1201	900	1.33
2004/2005	1245	1028	1.21
2005/2006	1446	1198	1.20
2006/2007	1626	1395	1.16
2007/2008	1775	1493	1.19
Average			1.22

Source: Annual Reports of HBL

**Figure 4.13**  
**Interest Income to Total Income Ratio of HBL**



**Table 4.14**

**Interest Income to Total Income Ratio of KBL**

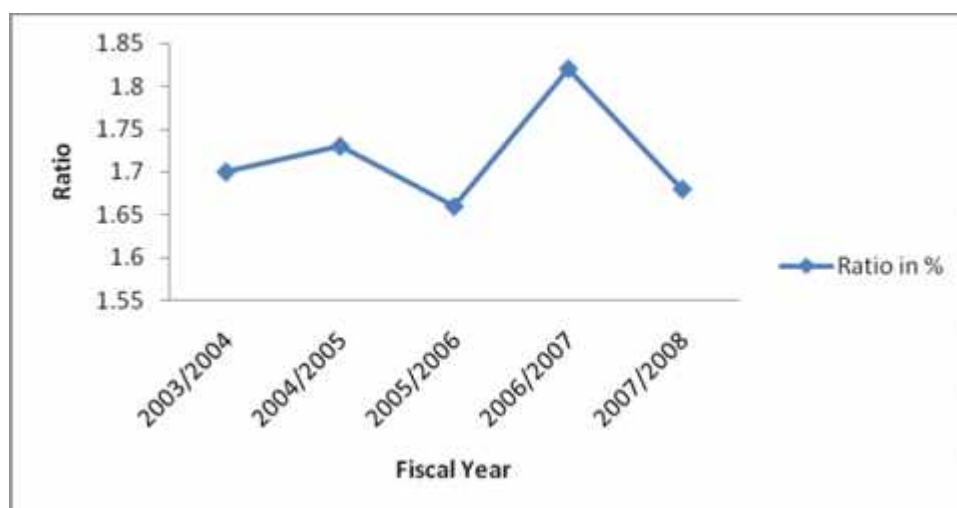
(Rs. in millions)

Fiscal Year	Interest Income	Total Income	Ratio
2003/2004	185	109	1.70
2004/2005	310	179	1.73
2005/2006	499	300	1.66
2006/2007	605	331	1.82
2007/2008	791	470	1.68
Average			1.72

Source: Annual Reports of KBL

**Figure 4.14**

**Interest Income to Total Income Ratio of KBL**



The above table shows that KBL has highest average mean ratio in interest income to total income ratio and HBL has the lowest mean ratio. The overall trend of the ratio is fluctuating. The highest ratio recorded is 1.33 in the F/Y 2003/04 by HBL and the highest ratio recorded is 1.82 in 2006/07 by KBL. The high ratio indicates that it is largely depended on lending activities and low ratio indicates that it has low dependency on lending activities and high dependency on other fee based activities.

#### 4.2.4 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”. This ratio of interest suspense to total interest income from loans and advances measures the composition of due but uncollected interest in the total interest income from loans and advances. The high degree of this ratio indicates to low interest turnover and low degree of this ratio indicates high interest.

**Table 4.15**

#### **Interest Suspense to Interest Income Ratio of HBL**

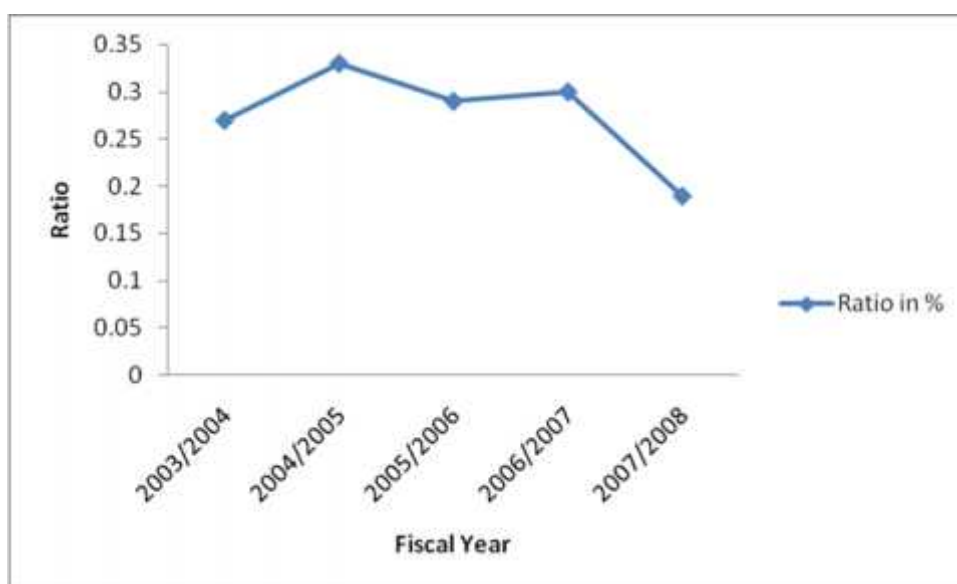
(Rs. in millions)

<b>Fiscal Year</b>	<b>Interest Suspense</b>	<b>Interest Income</b>	<b>Ratio</b>
2003/2004	322	1201	0.27
2004/2005	417	1245	0.33
2005/2006	426	1446	0.29
2006/2007	487	1626	0.30
2007/2008	336	1775	0.19
Average			0.28

Source: Annual Reports of HBL

**Figure 4.15**

**Interest Suspense to Interest Income Ratio of HBL**



**Table 4.16**

**Interest Suspense to Interest Income Ratio of KBL**

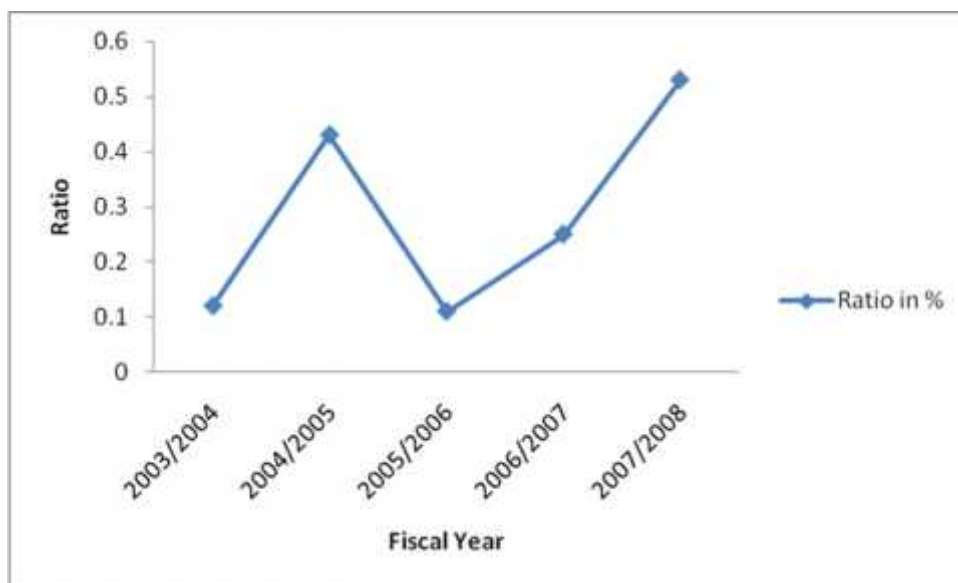
(Rs. in millions)

Fiscal Year	Interest Suspense	Interest Income	Ratio
2003/2004	2237	185	0.12
2004/2005	13500	310	0.43
2005/2006	5674	499	0.11
2006/2007	15521	605	0.25
2007/2008	42121	791	0.53
Average			0.29

Source: Annual Reports of KBL

**Figure 4.16**

**Interest Suspense to Interest Income Ratio of KBL**



The above shows the ratio of interest suspense to the interest income from loans and advances. The average mean ratio of HBL is 0.28 and KBL is 0.29. The highest ratio of HBL is 0.33 in the F/Y 2004/05 and the highest ratio of KBL is 0.53 in the F/Y 2007/08. The high degree of this ratio indicates to low interest turnover and low degree of this ratio indicates high interest turnover.

**4.2.5 Loan and Advance to Total Deposit Ratio**

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

The ratio is calculated by dividing loan and advance by total deposits. It is calculated as: -

Loan and advance to Total deposit Ratio

$$\text{Loan and Advance to Total Deposit Ratio} = \frac{\text{Loan and Advance}}{\text{Total Deposit}} | 100$$



**Table 4.17**

**Loan and Advance to Total Deposit Ratio of HBL**

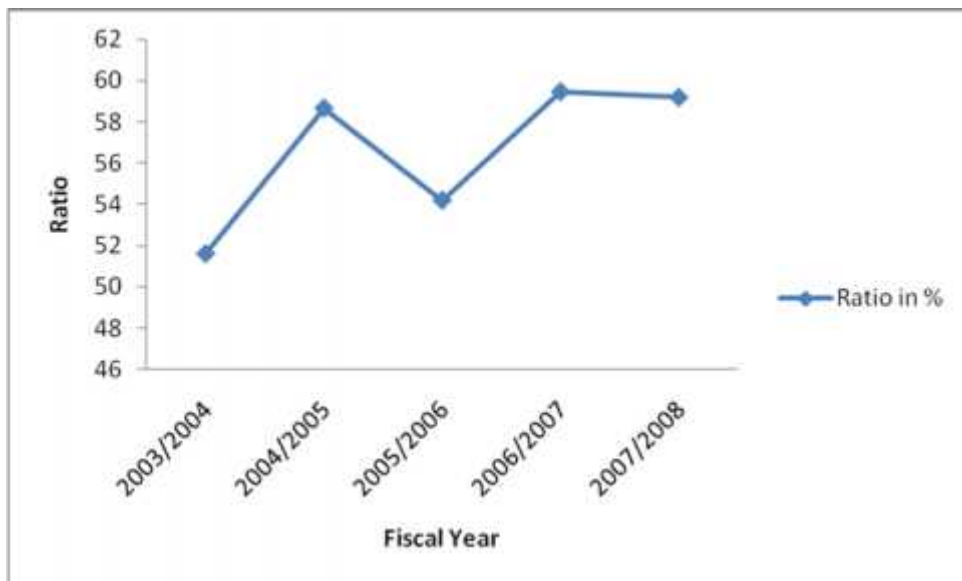
(Rs. in millions)

<b>Fiscal Year</b>	<b>Loans and Advance</b>	<b>Total Deposit</b>	<b>Ratio in %</b>
2003/2004	10844	21007	51.62
2004/2005	12919	22010	58.69
2005/2006	13451	24814	54.21
2006/2007	15761	26490	59.49
2007/2008	17793	30048	59.21
Average			56.64

Source: Annual Reports of HBL

**Figure 4.17**

**Loan and Advance to Total Deposit Ratio of HBL**



**Table 4.18**

**Loan and Advance to Total Deposit Ratio of KBL**

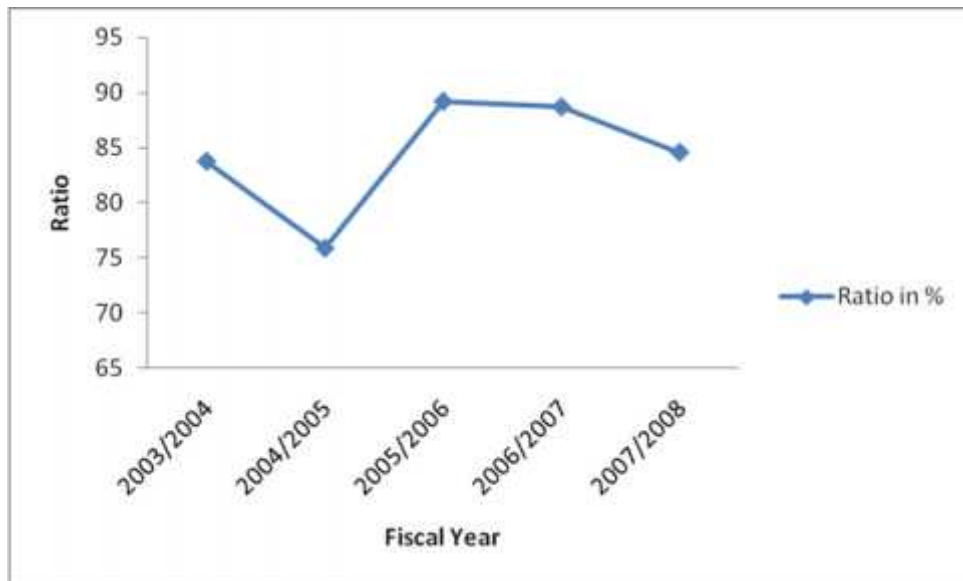
(Rs. in millions)

Fiscal Year	Loans and Advance	Total Deposit	Ratio in %
2003/2004	2105	2513	83.76
2004/2005	3649	4807	75.91
2005/2006	5590	6268	89.18
2006/2007	6891	7769	88.69
2007/2008	8929	10557	84.57
Average			84.42

Source: Annual Reports of KBL

**Figure 4.18**

**Loan and Advance to Total Deposit Ratio of KBL**



From the above table, it is seen that HBL has highest in F/Y 2006/07 i.e. 59.49% and lowest in F/Y 2003/04 i.e. 51.62% with an average ratio of 56.64%. Similarly, it is seen that KBL has highest in F/Y 2004/05 i.e. 89.18% and lowest in F/Y 2004/05 i.e. 75.91% with an average ratio of 84.42%. It can also be seen that the total deposit and loans and advances has been increasing in higher rate. This indicates that the bank has been able to utilize its fund in a proper way in the recent five years than the past years.

#### 4.2.6 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 joint venture banks. The interest offered and the interest charged should not be more than 5 percent. The joint venture banks are free to fix interest rate on deposits and loans. Interest rates on all types of deposits and loans should be published in the local newspapers and communicated to Nepal Rastra Bank on quarterly basis and immediately when revised. Deviation of 0.50 percent from the published rate is allowed on all types of loans and deposit. However in rate fixation but it does not specify the conditions that would oblige NRB to do so.

**Table 4.19**  
**Interest Income to Interest Expenses Ratio of HBL**

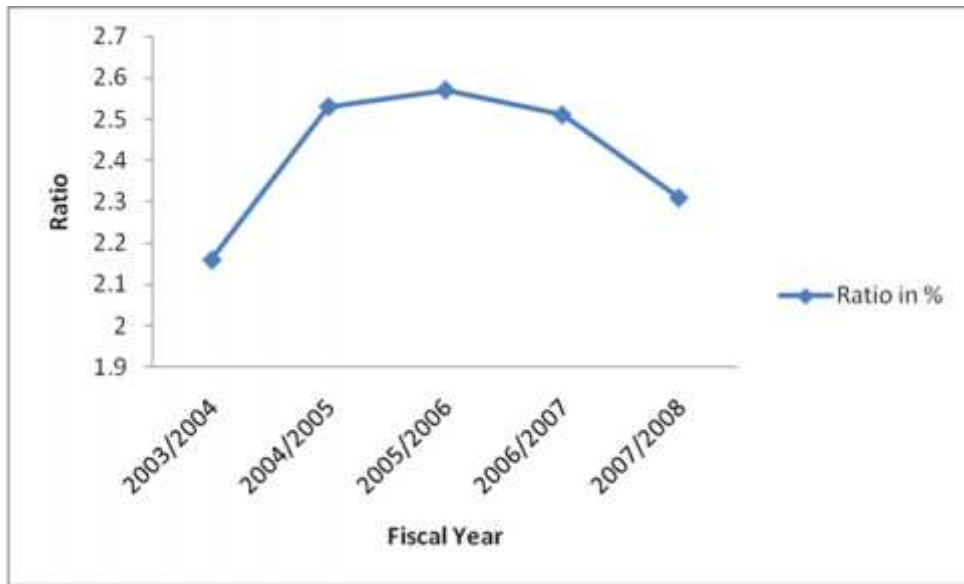
(Rs. in millions)

<b>Fiscal Year</b>	<b>Interest Income</b>	<b>Interest Expenses</b>	<b>Ratio</b>
2003/2004	1201	554	2.16
2004/2005	1245	491	2.53
2005/2006	1446	561	2.57
2006/2007	1626	648	2.51
2007/2008	1775	767	2.31
Average			2.41

Source: Annual Reports of HBL

**Figure 4.19**

**Interest Income to Interest Expenses Ratio of HBL**



**Table4.20**

**Interest Income to Interest Expenses Ratio of KBL**

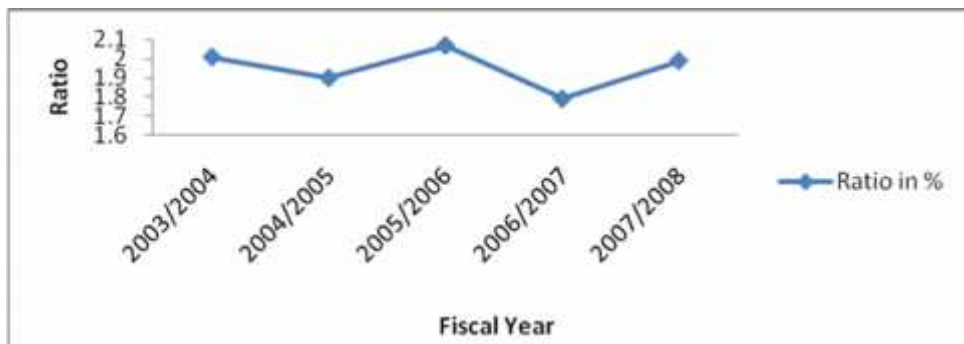
(Rs. in millions)

Fiscal Year	Interest Income	Interest Expenses	Ratio
2003/2004	185	92	2.01
2004/2005	310	163	1.90
2005/2006	499	240	2.07
2006/2007	605	337	1.79
2007/2008	791	397	1.99
Average			1.95

Source: Annual Reports of KBL

**Figure 4.20**

**Interest Income to Interest Expenses Ratio of KBL**



The above table shows that the ratios of interest income to interest expenses ratio. The average ratio of HBL is 2.41 which mean that a rupee of expenses in deposits generates 2.41 of interest income in an average. HBL has the highest mean ratio i.e.2.57 in the F/Y 2005/06, which mean that one rupee of interest expenses has been able to earn 2.57. KBL has the high degree that is 2.07 in the F/Y 2005/06. HBL is charging high interest rate in average than KBL i.e. 2.41>1.95.

### **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 ratio measures how effectively the bank has managed their funds to earn profit. Profit is the difference between total revenue and total expenses over a period of time. Profit is the ultimate output of commercial banks 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 terms of profit and financial performance of any institutions. Higher degree of profitability ratio shows better financial position and performance of the firm.

#### **4.3.1 Return on Equity (ROE)**

Net worth or shareholder's equity refers to owners claim on the assets of the bank. ROE measures how profitability the owner's funds have been utilized by the banks. The earning of satisfactory return is the most desirable objective of business as common or ordinary shareholders are entitled to the residual profits. If the rate of dividend is not fixed: the earning may be distributed to shareholders or retained in the business. Nevertheless, the net profit after tax represents the return. Higher ratio indicates sound management and efficiency for earning a satisfactory return to its equity shareholders. The ratio can be calculated as:

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Shareholders Equity}} \times 100$$

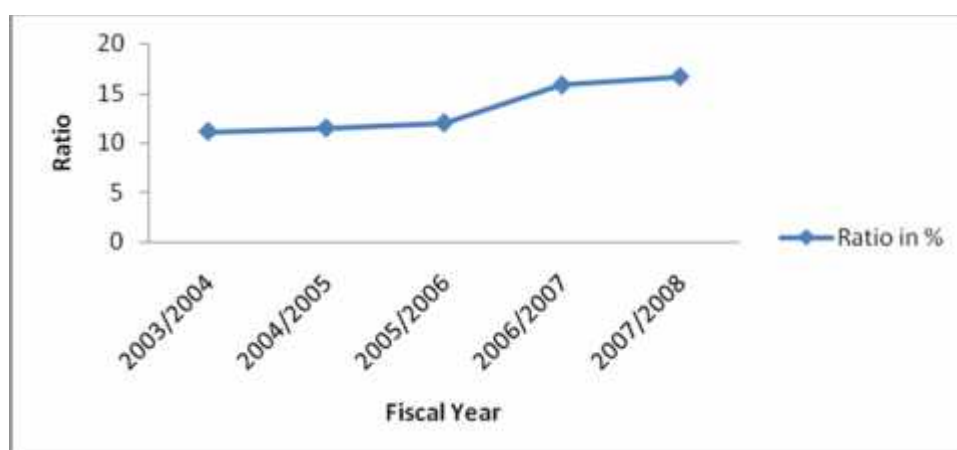
**Table 4.21**  
**Return on Equity of HBL**

(Rs. in millions)

<b>Fiscal Year</b>	<b>Net Profit</b>	<b>Shareholder's Equity</b>	<b>Ratio in %</b>
2003/2004	212	1905	11.12
2004/2005	263	2291	11.47
2005/2006	308	2568	11.99
2006/2007	457	2885	15.84
2007/2008	491	2942	16.68
Average			13.42

Source: Annual Reports of HBL

**Figure 4.21**  
**Return on Equity of HBL**



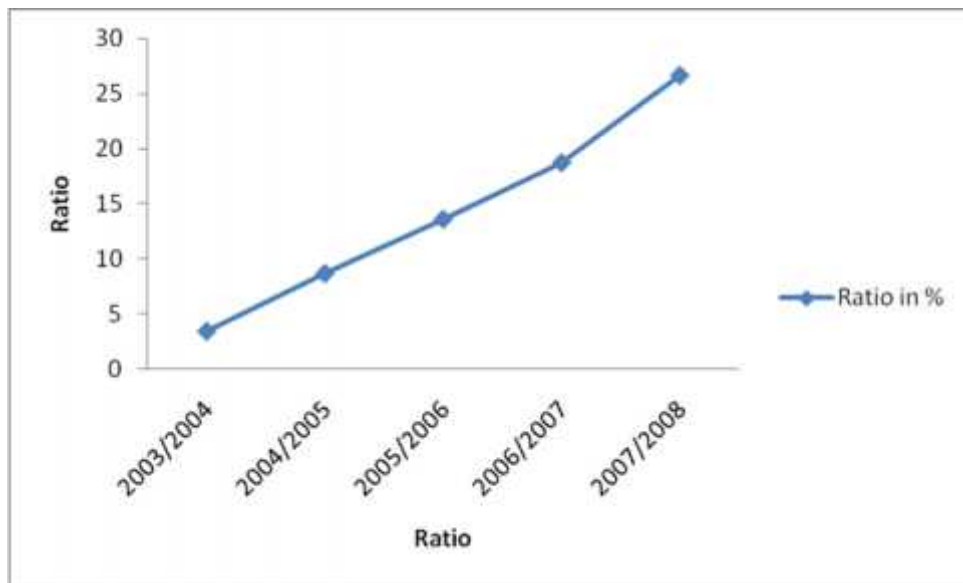
**Table 4.22**  
**Return on Equity of KBL**

(Rs. in millions)

<b>Fiscal Year</b>	<b>Net Profit</b>	<b>Shareholder's Equity</b>	<b>Ratio in %</b>
2003/2004	12474	361033	3.45
2004/2005	48687	559718	8.69
2005/2006	87879	645441	13.61
2006/2007	161833	863850	18.73
2007/2008	273414	1025630	26.65
Average			14.22

Source: Annual Reports of KBL

**Figure 4.22**  
**Return on Equity of KBL**



The above table shows that the ratios are in increasing trend. The highest ratio of HBL is 16.68% in the F/Y 2007/08 and highest ratio of KBL is 26.65% in the F/Y 2007/08. The average mean ratio of KBL is higher than HBL i.e. 14.22% > 13.42%. Net profit and Shareholder's equity of both banks are in increasing trend.

#### **4.3.2 Earning Per Share (EPS)**

Earning per share measures profitability of the common shareholders investment. The firms' EPS is generally the interest of present and prospective stockholders and management. EPS represents the amount earned on the behalf of each outstanding share of common stock. They are generally the interest of investing public and are considered as important indicator of the firm's success. EPS refers to net profit divided by the total number of shares outstanding. The amount of EPS measures the efficiency of a firm in relative terms. 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 determined by the profit it has earned. Thus, EPS determines the market value of a share, determines the attitude of outsiders. EPS can be calculated as:

$$\text{EPS} = \frac{\text{Net Profit After Tax}}{\text{No. of shares outstanding}} \times 100$$

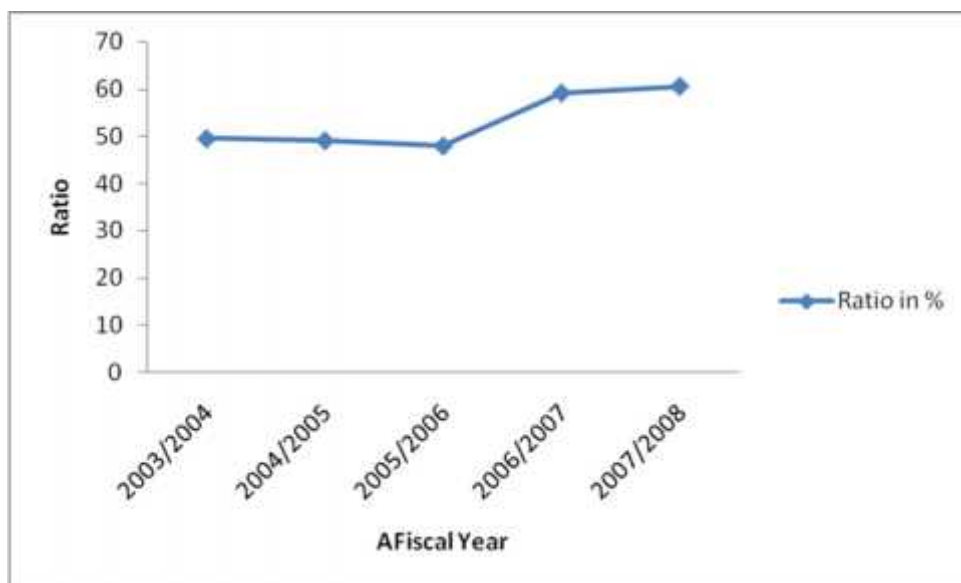
**Table 4.23**  
**Earning Per Share of HBL**

(Rs. in millions)

<b>Fiscal Year</b>	<b>Net Profit</b>	<b>Total no. of Share</b>	<b>EPS</b>
2003/2004	212132	4290	49.45
2004/2005	263052	5362	49.05
2005/2006	308277	6435	47.91
2006/2007	457458	7722	59.24
2007/2008	491824	8108	60.65
Average			53.26

Source: Annual Reports of HBL

**Figure 4.23**  
**Earning Per Share of HBL**





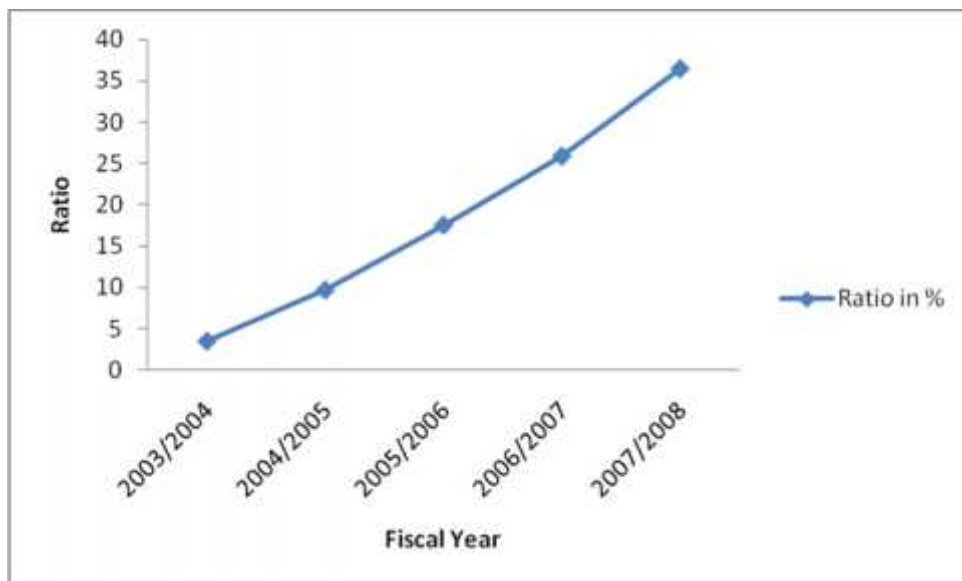
**Table 4.24**  
**Earning Per Share of KBL**

(Rs. in millions)

Fiscal Year	Net Profit	Total no. of Share	EPS
2003/2004	12474	3500	3.56
2004/2005	48687	5000	9.73
2005/2006	87879	5000	17.57
2006/2007	161833	6250	25.89
2007/2008	273414	7500	36.45
Average			18.64

Source: Annual Reports of KBL

**Figure 4.24**  
**Earning Per Share of KBL**



The above table shows that EPS of HBL varies from maximum of Rs.60.65 to minimum of Rs.47.91. Similarly, EPS of KBL varies from maximum of Rs.36.45 to minimum of Rs.3.56. The regular increase of EPS is because of the tremendous increase in net profit in the past years. Net Profit of both banks is in increasing trend. The average mean of HBL is Rs.53.26 and the average mean of KBL is Rs.18.64. Net profit and total numbers of shares of both banks i.e. HBL and KBL are in increasing trend.

#### 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 of statistic. 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 result in change in other variables. Different model for correlation analysis has been formulated and we have to use Karl Pearson coefficient of correlation to determine the relationship between variables studied.

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:

$$r_{xy} = \frac{XYZ - \frac{X \cdot Y}{N}}{\sqrt{X^2 Z - \frac{X^2}{N}} \sqrt{Y^2 Z - \frac{Y^2}{N}}}$$

Where,

N = No. of observation of X and Y

X = Sum of the observations in series X

Y = Sum of the observations in series Y

X<sup>2</sup> = Sum of the observations in series X

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

XY = Sum of the product of the observations 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.

##### 4.4.1 Correlation between Loans and Advances and 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 4.25**  
**Correlation between Loans and Advances and Deposits**

<b>Banks</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6P.E.</b>
HBL	0.97	0.9409	0.017	0.102
KBL	0.99	0.9801	0.006	0.036

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 0.97 which indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9409 which means 94.09%. KBL has high degree of positive correlation of 0.99 than HBL i.e. 0.97, 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 0.017 of HBL and 0.006 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 Loan 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 4.26**  
**Correlation between Loan Loss Provision and Loan and Advances**

<b>Banks</b>	<b>R</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6P.E.</b>
HBL	-0.008	0.0000	0.301	1.806
KBL	0.98	0.9604	0.011	0.066

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 -0.008 as the value of 'r'. The value of P.E. is 0.301 and 6P.E. is 1.806. The value of r is less than the value of 6P.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 0.98 for KBL and the coefficient of determination 'r<sup>2</sup>' is 0.9604 i.e. 96.04% for KBL. The value of 'r' is more than the value of 6P.E. i.e. 0.98>0.06 which shows that the value of 'r' is significant for KBL.

#### 4.4.3 Correlation between Investment and Loan and Advances

This coefficient of correlation between investment and loan and advances measures the degree of relationship between these two variables. This measure of correlation explains whether the banks have a rigid policy to maintain a consistent relationship between two assets or other factor such as seasonal opportunity, economic demand, NRB directives etc has impact on loans and advances as every bank has first priority on loan and advances to investment. Theoretically, increase or decrease in the volume of loans and advances directly reduces or increase the level of idle fund and this idleness of fund increases the investments.

**Table 4.27**  
**Correlation between Investment and Loan and Advances**

<b>Banks</b>	<b>R</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6P.E.</b>
HBL	0.62	0.3844	0.180	1.080
KBL	0.97	0.9409	0.017	0.102

Source: Appendix-5 & 6

The above table shows the co-efficient of correlation between investment and loan and advances of HBL and KBL. In case of HBL, the co-efficient of correlation between investment and loan and advances is 0.62 which indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination r<sup>2</sup> is 0.3844 which means 38.44%. KBL has high degree of positive correlation of 0.97 than HBL i.e. 0.62. Likewise value of P.E. is 1.08 of HBL and 0.102 of KBL. In case of HBL, the value of 'r' is lesser than the six time of its P.E. i.e. (0.62<1.08) which shows the

value of co-efficient of correlation is insignificant. In case 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 investment and loan and advances and the bank is mobilizing its investment as loan and advances successfully in the case of KBL. But there is not significant relationship between investment and loan and advances in the case of HBL.

#### 4.4.4 Correlation between Total Income and Loan 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 whether a percentages change in loan and advances contribute to increase the same percentage of income or not. Loan and advances is independent variable and total income is dependent variable.

**Table 4.28**

**Correlation between Total Income and Loan and Advances**

<b>Banks</b>	<b>R</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6P.E.</b>
HBL	0.97	0.9409	0.017	0.102
KBL	0.99	0.9801	0.006	0.036

Source: Appendix-7 & 8

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 0.97 which indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9409 which means 94.09%. Further the value of P.Er is 0.017 and 6.P.Er. is 0.102, which shows that the co-efficient of correlation 'r' is higher than the value of 6.P.E. i.e. (0.97>0.102). 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 co-efficient of determination  $r^2$  is 0.9801 which means 98.01%. Further the value of P.Er is 0.006 and 6.P.E. is 0.036, which shows that the co-efficient of correlation 'r' is

higher than the value of 6.P.E. i.e. (0.99>0.036). Therefore, the value of 'r' is significant.

#### 4.4.5 Co-efficient of Correlation between Interest Suspense and Interest Income

This correlation measures the relationship between interest suspense and interest income. Interest suspense is earned but uncollected interest is the outcome of the interest income in this analysis. Interest suspense is the dependent variable and interest income is the independent variable. Interest income which is due and uncollected for three months are transferred to interest suspense and thus interest income is reduced

**Table 4.29**

#### **Correlation between Interest Suspense and Interest Income**

<b>Banks</b>	<b>R</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6P.E.</b>
HBL	0.83	0.6889	0.093	0.558
KBL	0.82	0.6724	0.098	0.588

Source: Appendix-9 & 10

The above table shows that the coefficient and correlation between interest suspense and interest income 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 interest suspense and interest income is 0.83 which indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.6889 which means 68.89%. Further the value of P.Er is 0.093 and 6.P.Er. is 0.558, which shows that the co-efficient of correlation 'r' is higher than the value of 6.P.E. i.e. (0.83>0.558). Therefore, the value of 'r' is significant. Similarly in case of KBL, the co-efficient of correlation between interest suspense and interest income is 0.82 which indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.6724 which means 67.24%. Further the value of P.Er is 0.098 and 6.P.E. is 0.588, which shows that the co-efficient of correlation 'r' is higher than the value of 6.P.E. i.e. (0.82>0.588). Therefore, the value of 'r' is significant.

#### 4.4.6 Correlation between Shareholder's Equity and Loan and Advances

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

**Table 4.30**

**Correlation between Shareholder's Equity and Loan and Advances**

<b>Banks</b>	<b>R</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>6P.E.</b>
HBL	0.95	0.9025	0.29	0.174
KBL	0.98	0.9604	0.011	0.066

Source: Appendix-11 & 12

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 0.95 that indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9025 that means 90.25%. Further the value of P.Er is 0.29 and 6.P.Er. is 0.174, which shows that the co-efficient of correlation 'r' is higher than the value of 6.P.E. i.e. (0.95>0.174). 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 0.98 that indicates positive correlation between these two variables. Similarly, the value of co-efficient of determination  $r^2$  is 0.9604 that means 96.04%. Further the value of P.Er is 0.011 and 6.P.Er. is 0.066, which shows that the co-efficient of correlation 'r' is higher than the value of 6.P.E. i.e. (0.98>0.066). Therefore, the value of 'r' is significant.

#### 4.5 Measuring the Regression of one Variable on the Other

In this section, regression analysis is used to describe the average relationship between two variables. The regression line of one variable on other estimates the most probable value of first variable for the given value of the second variable. Under this section we

shall calculate the regression line of Loans and Advances on Deposit and Loan Loss Provision on Loans and Advances of concerned banks separately.

#### 4.5.1 Regression Analysis of Loans and Advances on Deposit

Loans and Advances and Deposits are very important items of balance sheet of any commercial banks. The Deposit collected so as to mobilize in Loans and Advances. This is how from the fund circulation commercial banks make profits.

**Table 4.31**  
**Regression Equation of Loans and Advances on Deposit of HBL**

FY	Deposit (X)	Loan & Advances (Y)	X <sup>2</sup>	XY
2003/2004	21007	10844	441294049	227799908
2004/2005	22010	12919	484440100	284347190
2005/2006	24814	13451	615734596	333773114
2006/2007	26490	15761	701720100	417508890
2007/2008	30048	17793	902882304	534644064
Total	X=124369	Y=70768	X <sup>2</sup> =3146071149	XY=1798073166

The above table shows the figure of Deposit and Loans and Advances of HBL from the year 2003 to 2008. The regression equation obtained from the calculation is “ $y = -3506.8 + 0.71x$ ”. The slope of this line is 0.71. The change in Loans and Advances with per unit change in Deposits. This brings up the fact that with a unit change in Deposits, Loans and Advances also changes in the same direction with a little less than the equal proportion.

**Table 4.32**  
**Regression Equation of Loans and Advances on Deposit of KBL**

FY	Deposit (X)	Loan & Advances (Y)	X <sup>2</sup>	XY
2003/2004	2513	2105	6315169	5289865
2004/2005	4807	3649	23107249	17540743
2005/2006	6268	5590	39287824	35038120
2006/2007	7769	6891	60357361	53536179
2007/2008	10557	8929	111450249	94263453
Total	X=31914	Y=27164	X <sup>2</sup> =240517852	XY=205668360



The above table shows the figure of Deposit and Loans and Advances of KBL from the year 2003 to 2008. The regression equation obtained from the calculation is “ $y = -120.20 + 0.87x$ ”. The slope of this line is 0.87. The change in loans and advances with per unit change in deposits. This brings up the fact that with a unit change in Deposits, Loans and Advances also changes in the same direction with a little less than the equal proportion.

#### 4.5.2 Regression Analysis of Loan Loss Provision on Loans and Advances

Loan Loss Provision is a kind of by-product of Loans and Advances. Every Non-Performing Loan increases Loan Loss Provision. Loan Loss Provision decreases the profits of the banks. Thus, bank should try to control over the Loan Loss Provision.

**Table 4.33**

#### **Regression Equation of Loan Loss Provision on Loans and Advances of HBL**

FY	Loan & Advances (X)	Loan Loss Provision (Y)	X <sup>2</sup>	XY
2003/2004	10844	843	117592336	9141492
2004/2005	12919	967	166900561	12492673
2005/2006	13451	1026	180929401	13800726
2006/2007	15761	1119	248409121	17636559
2007/2008	17793	795	316590849	14145435
Total	X =70768	Y =4750	X <sup>2</sup> =1030422268	XY =67216885

The above table shows the figure of Loan Loss Provision and Loans and Advances of HBL from the year 2003 to 2008. The regression equation obtained from the calculation is “ $y = 955.66 - 0.0004x$ ”. The slope of this line is 0.0004.

**Table 4.34**

#### **Regression Equation of Loan Loss Provision on Loans and Advances of KBL**

FY	Loan & Advances (X)	Loan Loss Provision (Y)	X <sup>2</sup>	XY
2003/2004	2105	32	4431025	67360
2004/2005	3649	48	13315201	175152
2005/2006	5590	96	31248100	536640
2006/2007	6891	115	47485881	792465
2007/2008	8929	133	79727041	1187557
Total	X =27164	Y =424	X <sup>2</sup> =176207248	XY =2759174

The above table shows the figure of Loan Loss Provision and Loans and Advances of KBL from the year 2003 to 2008. The regression equation obtained from the calculation is “ $y= 3.308 + 0.015x$ ”. The slope of this line is 0.015.

#### **4.6 Major Findings of the Study**

The major findings of the study are summarized below: -

- ❖ The Loans and Advances to Total Assets Ratio of KBL is higher than HBL i.e. (72.69>49.02%). It means KBL has good lending performance. The lower ratio of HBL needs diverting its lending function for more fee-based activities.
- ❖ KBL has highest Loans and Advances and Investment to Total Deposits referring that it has the maximum mobilization of deposits than HBL. It seems that KBL is making investments high extend than HBL. This ratio also tells about the success of commercial banks to convert their liabilities into assets.
- ❖ Loans and Advances to Shareholder's Equity ratio have gained the significant importance in measuring the capital fund. The highest Loans and Advances to Shareholders Equity ratio is 7.54% for KBL and 5.61% for HBL. KBL has been able to generate high volume of loan and advances than HBL.
- ❖ The measurement of efficiency in lending has revealed that Loan Loss Provision to Total Loans and Advances ratio is pretty satisfactory since according to NRB Directives. Loan Loss Provision indicates provision against both Performing and Non-Performing Loans. Thus, even the increase in Loan increases the Loan Loss Provision. But generally, increase in this ratio suggests the increase in the Non-Performing Loans.
- ❖ The Loans and Advances to Total Deposit Ratio of KBL is higher than HBL i.e. (84.42>56.64%). Loan and advances and total deposit of both banks are in increasing trend.
- ❖ The concerned banks are able to reduce its non-performing ratio. HBL has reduced its NPL by large percentage during the last five years. Non-performing Loan of HBL is in fluctuating trend but Non-performing Loan of KBL is in increasing trend.

- ❖ Interest income and Total income of concerned banks are in increasing trend but the ratio of both bank are in fluctuating trend.
- ❖ The ratio of Interest Suspense to Interest Income from Loans and Advances among these banks is of varying nature. HBL has the least ratio of 0.28 whereas KBL has the maximum of 0.29. If not alerted now, can bring hazard situation to the banks in future
- ❖ EPS, that checks the financial position of an organization shows that HBL has an EPS of Rs. 53.26 and KBL has an EPS of Rs. 18.64. Net profit of both banks has increasing trend.
- ❖ The correlation analysis has shown high degree of correlation between Deposits and Loans and Advances of HBL and KBL. There is significant relationship between deposit and loan and advances and the bank is mobilizing it's deposited as loan 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 goods lending opportunities.
- ❖ The co-efficient of correlation shows the correlation between loan loss provision and Loans and Advances of HBL and KBL. KBL has high degree of positive correlation, which indicates good performance. HBL have negative correlation because of unavailability of good lending opportunities.
- ❖ There is significant relationship between investment and loan and advances and the bank is mobilizing its investment as loan and advances successfully in the case of KBL. But there is not significant relationship between investment and loan and advances in the case of HBL.
- ❖ There is significant relationship between total income and loan and advances of HBL and KBL. It shows positive relationship between two variables of HBL and KBL.
- ❖ The coefficient of correlation between interest suspense and interest income shows the positive relationship between two variables of HBL and KBL. The co-efficient of correlation 'r' is higher than the value of 6.P.E. for both concerned banks so there is significant relationship between interest suspense and interest income.

- ❖ There is high degree of positive correlation between shareholder's equity and loan and advances in HBL and KBL. It shows good fund mobilization for both banks. The value of 'r' is significant for both banks i.e. HBL and KBL.

## **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 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 valuables, 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 institutions are inevitable for the resources mobilization and the all round development of the country. They have resources for economic development and they maintain economic confidence of various segments and extend 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. But 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 suspicion on the performance on the commercial banks.

Lending is one of the most important functions 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 banks 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, and regression analysis 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 website of Nepal stock exchange. The financial statements of five years (2003-2008) were selected for the study purpose.

## **5.2 Conclusion**

After analyzing the lending procedures of Himalayan Bank Ltd. and Kumari Bank Ltd. of Nepal from both financial and statistical aspects, based on the main finding, following conclusion have been drawn:

The ratio of Loans and Advances to Total Assets i.e. (72.69%>49.02%) and Loans and Advances and Investments to Total Deposits i.e. (1.02>1.00) of KBL is higher than HBL. That means KBL has good lending performance. The lower ratio of HBL

need diverting its lending function for more fee- based activities. There is maximum utilization of the collected funds. The measurement of lending strength in relative terms has revealed that HBL has the highest investment to Loans and Advance and Investment ratio. This ratio gives the portion of risk free Investment out of total Loans and Advances and Investment. The average mean ratio of HBL is 0.43 and the average mean of KBL is 0.17. The Loans and Advances to Shareholder's Equity Ratio of KBL is higher than HBL i.e. (7.54>5.61). That means KBL has been able to generate high volume of loan and advances than HBL. In case of Non-performing Loan the average mean of HBL is higher than KBL i.e. (6.8%>0.90%). HBL has the highest Loan Loss Provision of 7.8% in the year 2002/2003; it means it had collected the highest amount in Provision for Loan Loss in comparison to KBL. KBL has highest average mean ratio in Interest Income to Total Income ratio and HBL has the lowest average mean ratio. The overall trend of the ratio is fluctuating. In the context of Interest Suspense to the Interest Income from Loans and Advances, the average mean ratio of KBL is higher than HBL i.e. (0.29>0.28). The high degree of this ratio indicates to low interest turnover and low degree of this ratio indicates high interest turnover. The Loans and Advances to Total Deposit Ratio of KBL is higher than HBL i.e. (84.42%>56.64%). That means KBL has good lending performance. This indicates that the bank has been able to utilize its fund in a proper way. In the context of Interest Income to Interest Expenses Ratio, the average mean ratio of HBL is higher than KBL i.e. (2.41>1.95). HBL is charging high interest rate than KBL. 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 KBL is higher than HBL i.e. (14.22%>13.42%). In case of EPS, the average mean ratio of HBL is higher than KBL i.e. (Rs.53.26>Rs.18.64). Higher percentage of EPS is preferable.

In case of HBL, the co-efficient of correlation between loan and advances and deposit is 0.97, which indicates positive correlation between these two variables. KBL has high degree of positive correlation of 0.99 than HBL i.e. 0.97, 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. There is significant relationship between deposit and loan and advances and the bank is mobilizing its deposited as loan and advances successfully. This is indicative of good lending opportunities. In the context of HBL, it is found that the value of 'r' is not significant

for HBL. HBL has negative relation with  $-0.008$  as the value of 'r'. The value of P.E. is  $0.301$  and  $6P.E.$  is  $1.806$ . The value of  $r$  is less than the value of  $6P.E.$ , 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 more than the value of  $6P.E.$  i.e.  $0.98 > 0.06$  which shows that the value of 'r' is significant for KBL. The co-efficient of correlation between investment and loan and advances of HBL and KBL shows the positive correlation between these two variables. KBL has high degree of positive correlation of  $0.97$  than HBL i.e.  $0.62$ . In case of HBL, the value of 'r' is lesser than the six time of its P.E. i.e.  $(0.62 < 1.08)$  which shows the value of co-efficient of correlation is insignificant. In case 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. In case of HBL, the co-efficient of correlation between total income and loan and advances is  $0.97$  that indicates positive correlation between these two variables. 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. Further the value of P.Er is more than  $6P.E.$ , which shows that the co-efficient of correlation 'r' is higher than the value of  $6P.E.$ . Therefore, the value of 'r' is significant. The coefficient and correlation between interest suspense and interest income of HBL and KBL shows positive relationship between these two variables. Both banks have positive relationship and the value of P.Er is more than  $6P.E.$ , which shows that the co-efficient of correlation 'r' is higher than the value of  $6P.E.$ . Therefore, the value of 'r' is significant. There is high degree of positive correlation between Shareholder's Equity and Loans and Advances in HBL and KBL. It shows good fund mobilization. The value of 'r' is significant for both HBL and KBL.

### **5.3 Recommendations**

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

#### **➤ Need to Diversify its Lending**

Banks should take the 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 its 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 sectors and area could be benefited with banking services and for the development of the country and to fulfill the government's 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 utmost 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 officers, 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 client should be strictly and closely examined.

➤ **Need to Reduce the Interest Rate on Loan**

The interest rate can be minimized with 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 rate by bearing loss. The rate should be minimized with the scientific management of the fund and operating expenses.

➤ **Need to Invest the Small Entrepreneur Development Programme**

Loan should provide to those who are economically backward and uplifting the condition of those people so bank should come 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 natural 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 of 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 long 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 & Advances and Total Deposit of HBL

FY	Loan and Advances (X)	X <sup>2</sup>	Total Deposit (Y)	Y <sup>2</sup>	XY
2003/04	10844	117592336	21007	441294049	227799908
2004/05	12919	166900561	22010	484440100	284347190
2005/06	13451	180929401	24814	615734596	333773114
2006/07	15761	248409121	26490	701720100	417508890
2007/08	17793	316590849	30048	902882304	534644064
<b>Total</b>	<b>X=70768</b>	<b>X<sup>2</sup>=1030422268</b>	<b>Y=124369</b>	<b>Y<sup>2</sup>=3146071149</b>	<b>XY=1798073166</b>

$$\begin{aligned}
 r_{xy} &= \frac{XYZ \frac{X \cdot Y}{N}}{\sqrt{X^2 Z \frac{f}{N}} \sqrt{Y^2 Z \frac{f}{N}}} \\
 &= \frac{1798073166 Z \frac{70768 \cdot 124369}{5}}{\sqrt{1030422268 Z \frac{f}{5}} \sqrt{3146071149 Z \frac{f}{5}}} \\
 &= \frac{1798073166 Z 1760269078}{5366.59 \cdot 7248.55} \\
 &= \frac{37804088}{38899996} \\
 &= 0.97
 \end{aligned}$$

$$r_{xy}^2 = 0.9409$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.9409}{\sqrt{5}} = 0.017$$

$$6P.E. = 6 \times 0.017 = 0.102$$

### Appendix: 2



Calculation of Correlation Coefficient between Loans & Advances and Total Deposit of KBL

FY	Loans and Advances (X)	X <sup>2</sup>	Total Deposit (Y)	Y <sup>2</sup>	XY
2003/04	2105	4431025	2513	6315169	5289865
2004/05	3649	13315201	4807	23107249	17540743
2005/06	5590	31248100	6268	39287824	35038120
2006/07	6891	47485881	7769	60357361	53536179
2007/08	8929	79727041	10557	111450249	94263453
Total	X=27164	X <sup>2</sup> =176207248	Y=31914	Y <sup>2</sup> =240517852	XY=205668360

$$\begin{aligned}
 r_{xy} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} \\
 &= \frac{205668360}{\sqrt{176207248} \sqrt{240517852}} \\
 &= \frac{205668360}{5350.76 \times 6067.71} \\
 &= \frac{32285981}{32466860} \\
 &= 0.99
 \end{aligned}$$

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

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.9801}{\sqrt{5}} = 0.006$$

$$6P.E. = 6 \times 0.006 = 0.036$$

**Appendix: 3**

Calculation of Correlation Coefficient between Loan Loss Provision and Loans & Advances of HBL

FY	Loans Loss (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	843	710649	10844	117592336	9141492
2004/05	967	935089	12919	166900561	12492673
2005/06	1026	1052676	13451	180929401	13800726
2006/07	1119	1252161	15761	248409121	17636559
2007/08	795	632025	17793	316590849	14145435
Total	X =4750	X <sup>2</sup> = 4582600	Y =70768	Y <sup>2</sup> =1030422268	XY =67216885

$$\begin{aligned}
r_{xy} &= \frac{XY Z \frac{X \cdot Y}{N}}{\sqrt{X^2 Z \frac{f}{N}} \sqrt{Y^2 Z \frac{f}{N}}} \\
&= \frac{67216885 Z \frac{4750 \cdot 70768}{5}}{\sqrt{4582600 Z \frac{(4750)^2}{5}} \sqrt{1030422268 Z \frac{70768^2}{5}}} \\
&= \frac{67216885 Z 67229600}{264.76 \cdot 5366.59} \\
&= \frac{Z12715}{1420858} \\
&= -0.008
\end{aligned}$$

$$r_{xy}^2 = 0.0000$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.00}{\sqrt{5}} = 0.301$$

$$6P.E. = 6 \times 0.301 = 1.806$$

#### Appendix: 4

Calculation of Correlation Coefficient between Loan Loss Provision and Loans & Advances of KBL

FY	Loans Loss (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	32	1024	2105	4431025	67360

2004/05	48	2304	3649	13315201	175152
2005/06	96	9216	5590	31248100	536640
2006/07	115	13225	6891	47485881	792465
2007/08	133	17689	8929	79727041	1187557
Total	X =424	X <sup>2</sup> = 43458	Y =27164	Y <sup>2</sup> =176207248	XY =2759174

$$r_{xy} = \frac{XYZ \frac{X \cdot Y}{N}}{\sqrt{X^2 Z \frac{f}{N}} \sqrt{Y^2 Z \frac{f}{N}}}$$

$$= \frac{2759174 Z \frac{424 \cdot 27164}{5}}{\sqrt{43458 Z \frac{f}{5}} \sqrt{176207248 Z \frac{f}{5}}}$$

$$= \frac{2759174 Z 2303507}{86.62 \cdot 5350.76}$$

$$= \frac{455667}{463482.83}$$

$$= 0.98$$

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

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1 - 0.9604}{\sqrt{5}} = 0.011$$

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

### Appendix: 5

Calculation of Correlation Coefficient between Investment and Loans & Advances of HBL

FY	Investment (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	10175	103530625	10844	117592336	110337700
2004/05	9292	86341264	12919	166900561	120043348
2005/06	11692	136702864	13451	180929401	157269092
2006/07	10889	118570321	15761	248409121	171621529

2007/08	11822	139759684	17793	316590849	210348846
Total	X = 53870	X <sup>2</sup> = 584904758	Y = 70768	Y <sup>2</sup> = 1030422268	XY = 769620515

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

$$= \frac{769620515 - \frac{53870 \cdot 70768}{5}}{\sqrt{584904758 - \frac{53870^2}{5}} \sqrt{1030422268 - \frac{70768^2}{5}}}$$

$$= \frac{769620515 - 762454432}{2123.53 \cdot 5366.59}$$

$$= \frac{7166083}{11396115}$$

$$= 0.62$$

$$r^2_{xy} = 0.3844$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.3844}{\sqrt{5}} = 0.18$$

$$6P.E. = 6 \times 0.18 = 1.08$$

### Appendix: 6

Calculation of Correlation Coefficient between Investment and Loans & Advances of KBL

FY	Investment (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	423	178929	2105	4431025	890415
2004/05	983	966289	3649	13315201	3586967
2005/06	1190	1416100	5590	31248100	6652100
2006/07	1394	1943236	6891	47485881	9606054
2007/08	1678	2815684	8929	79727041	14982862
Total	X = 5668	X <sup>2</sup> = 7320238	Y = 27164	Y <sup>2</sup> = 176207248	XY = 35718398

$$\begin{aligned}
r_{xy} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} \\
&= \frac{35718398}{\sqrt{7320238} \sqrt{176207248}} \\
&= \frac{35718398}{946.04 \times 5350.76} \\
&= \frac{4925288}{5062033} \\
&= 0.97
\end{aligned}$$

$$r_{xy}^2 = 0.9409$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.9409}{\sqrt{5}} = 0.017$$

$$6P.E. = 6 \times 0.017 = 0.102$$

### Appendix: 7

Calculation of Correlation Coefficient between Total Income and Loans & Advances of HBL

FY	Total Income (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	900	810000	10844	117592336	9759600
2004/05	1028	1056784	12919	166900561	13280732
2005/06	1198	1435204	13451	180929401	16114298
2006/07	1395	1946025	15761	248409121	21986595
2007/08	1493	2229049	17793	316590849	26564949
Total	X = 6014	X <sup>2</sup> = 7477062	Y = 70768	Y <sup>2</sup> = 1030422268	XY = 87706174

$$\begin{aligned}
r_{xy} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} \\
&= \frac{87706174}{\sqrt{7477062} \sqrt{1030422268}} \\
&= \frac{87706174}{493.37 \times 32268.59} \\
&= \frac{2586424}{2647714} \\
&= 0.97
\end{aligned}$$

$$r_{xy}^2 = 0.9409$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.9409}{\sqrt{5}} = 0.017$$

$$6P.E. = 6 \times 0.017 = 0.102$$

### Appendix: 8

Calculation of Correlation Coefficient between Total Income and Loans & Advances of KBL

FY	Total Income (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	109	11881	2105	4431025	229445
2004/05	179	32041	3649	13315201	653171
2005/06	300	90000	5590	31248100	1677000
2006/07	331	109561	6891	47485881	2280921
2007/08	470	220900	8929	79727041	4196630
Total	X = 1389	X <sup>2</sup> = 464383	Y = 27164	Y <sup>2</sup> = 176207248	XY = 9037167

$$r_{xy} = \frac{XYZ - \frac{X \cdot Y}{N}}{\sqrt{X^2 Z - \frac{f X^2}{N}} \sqrt{Y^2 Z - \frac{f Y^2}{N}}}$$

$$= \frac{9037167 Z - \frac{1389 \cdot 27164}{5}}{\sqrt{464383 Z - \frac{f 1389^2}{5}} \sqrt{176207248 Z - \frac{f 27164^2}{5}}}$$

$$= \frac{9037167 Z - 7546159}{280.21 \cdot 5350.76}$$

$$= \frac{1491008}{1499336}$$

$$= 0.99$$

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

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1 - 0.9801}{\sqrt{5}} = 0.006$$

$$6P.E. = 6 \times 0.006 = 0.036$$

### Appendix: 9

Calculation of Correlation Coefficient between Interest Suspense and Interest Income of HBL

FY	Interest Suspense (X)	X <sup>2</sup>	Interest Income (Y)	Y <sup>2</sup>	XY
2003/04	322	103684	1201	1442401	386722
2004/05	417	173889	1245	1550025	519165
2005/06	426	181476	1446	2090916	615996
2006/07	487	237169	1626	2643876	791862
2007/08	470	220900	1775	3150625	834250
Total	X=2122	X <sup>2</sup> =917118	Y=7293	Y <sup>2</sup> = 10877843	XY=3147995

$$\begin{aligned}
r_{xy} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} \\
&= \frac{3147995}{\sqrt{917118} \sqrt{10877843}} \\
&= \frac{3147995}{128.61 \times 490.17} \\
&= \frac{52846}{63041} \\
&= 0.83
\end{aligned}$$

$$r^2_{xy} = 0.6889$$

$$P.E. = \frac{1-r^2}{\sqrt{N}} = \frac{1-0.6889}{\sqrt{5}} = 0.093$$

$$6P.E. = 6 \times 0.093 = 0.558$$

### Appendix: 10

Calculation of Correlation Coefficient between Interest Suspense and Interest Income of KBL

FY	Interest Suspense (X)	X <sup>2</sup>	Interest Income (Y)	Y <sup>2</sup>	XY
2003/04	2237	5004169	185	34225	413845
2004/05	13500	182250000	310	96100	4185000
2005/06	5674	32194276	499	249001	2831326
2006/07	15521	240901441	605	366025	9390205
2007/08	42121	1774178641	791	625681	33317711
Total	X=79053	X <sup>2</sup> =2234528527	Y=2390	Y <sup>2</sup> =1371032	XY=50138087



$$\begin{aligned}
r_{xy} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} \\
&= \frac{50138087}{\sqrt{2234528527} \sqrt{1371032}} \\
&= \frac{50138087}{31379.18 \times 478.13} \\
&= \frac{12350753}{15003327} \\
&= 0.82
\end{aligned}$$

$$r_{xy}^2 = 0.6724$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.6724}{\sqrt{5}} = 0.098$$

$$6P.E. = 6 \times 0.098 = 0.588$$

### Appendix: 11

Calculation of Correlation Coefficient between Shareholder's Equity and Loans & Advances of HBL

FY	S/E (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	1905	3629025	10844	117592336	20657820
2004/05	2291	5248681	12919	166900561	29597429
2005/06	2568	6594624	13451	180929401	34542168
2006/07	2885	8323225	15761	248409121	45470485
2007/08	2942	8655364	17793	316590849	52347006
Total	X = 12591	X <sup>2</sup> = 32450919	Y = 70768	Y <sup>2</sup> = 1030422268	XY = 182614908

$$\begin{aligned}
r_{xy} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} \\
&= \frac{182614908}{\sqrt{32450919} \sqrt{1030422268}} \\
&= \frac{182614908}{862.71 \times 32286.59} \\
&= \frac{4406931}{4629811} \\
&= 0.95
\end{aligned}$$

$$r_{xy}^2 = 0.9025$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.9025}{\sqrt{5}} = 0.029$$

$$6P.E. = 6 \times 0.029 = 0.174$$

### Appendix: 12

Calculation of Correlation Coefficient between Shareholder's Equity and Loans & Advances of KBL

FY	S/E (X)	X <sup>2</sup>	Loans and Advances (Y)	Y <sup>2</sup>	XY
2003/04	361	130321	2105	4431025	759905
2004/05	559	312481	3649	13315201	2039791
2005/06	645	416025	5590	31248100	3605550
2006/07	863	744769	6891	47485881	5946933
2007/08	1025	1050625	8929	79727041	9152225
Total	X=3453	X <sup>2</sup> =2654221	Y =27164	Y <sup>2</sup> =176207248	XY=21504404

$$\begin{aligned}
r_{xy} &= \frac{XYZ \frac{X \cdot Y}{N}}{\sqrt{X^2 Z \frac{f}{N}} \sqrt{Y^2 Z \frac{f}{N}}} \\
&= \frac{21504404 Z \frac{3453 \mid 27164}{5}}{\sqrt{2654221 Z \frac{f}{5}} \sqrt{176207248 Z \frac{f}{5}}} \\
&= \frac{21504404 Z 18759458}{519.21 \mid 5350.76} \\
&= \frac{2744946}{2778168} \\
&= 0.98
\end{aligned}$$

$$r_{xy}^2 = 0.9604$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.9604}{\sqrt{5}} = 0.011$$

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