CHAPTER - I
INTRODUCTION

1.1 Background of the Study

Nepal sandwiched between the two giant countries India and China, is one of the land-locked country in Asia. Ecologically, the republic is divided into three regions the Himalayas, the hilly and the Terai region. The economy status is growing slowly and it is one of the poorest countries in the world. Nepal is overwhelmingly dependent on agriculture with more than 84% of population living in the rural areas and derives their livelihood through agriculture. It has been estimated that more than 30% of population is under the poverty line and the share of these people are more in rural areas in comparison to urban areas. The economic development of the country has been adversely affected by variety of geopolitical and structural constraints. Nepal due to its geographical constraint, limited exportable force low economic, low income, low saving and infrastructure are major factors that are deteriorating the economic development of the country. The per capita income is US$ 562 which is low and recorded as a least developed country in the world. The open border trade policy with India has direct effect with the Nepalese economy. Though tourism industry seemed good as a foreign currency earner, recent political instability has direct impact upon this industry.

In the last few years, basically after the restoration of democracy in 1990, the government moved towards liberalization and privatization and paved the way for economic growth and the result has been positive. The continuing effort towards the privatization is the process of national development has helped in establishing many banks, financial institutions and industries under joint venture agreements. The development of infrastructure greatly, affects the economic growth and

problem solving of underdeveloped economy. Hence, country should emphasize to create such infra-structure which is necessary for industrialization.

Commercial Banking Scenario in Nepal

The history of modern financial and monetary development in Nepal is not very old. It was in 1937 A.D. (1994 B.S.), the first commercial bank was established in Nepal with 51% government equity. Nepal's trade and industry sector was backed because of lack of technological banking facilities. The growth of commercial banking in Nepal started from Nepal Bank Limited, which provided important assistance to public and government in collecting deposit and disbursing credit. Then Nepal Rastra Bank (NRB) act was issued in 2012 B.S. After that Nepal Rastra Bank was established in 2013 B.S. With the increased banking needs of the economy, the second commercial bank Rastriya Banijya Bank came into existence in 1966 A.D. (2022 B.S.) with 100% government ownership.

Banking sectors are the backbone of country's economy. Bank is a resource mobilizing institution, which accept deposit from various sources and invest such accumulated resources in the field of agriculture, trade, commerce, industry and tourism. Most of the commercial banks is to mobilize the resources by investing the same in a profitable sectors. The resources may include capital funds consisting of shareholders equity, money deposited by the people, borrowings and profit capitalization. The competency of any commercial bank is referred as to the utilization of resources on most profitable manner. The profit should be adequate to meet its cost of funds as well as some margin left over as the reward for risk bearing. The financial institutions are supposed to have contribution for overall economic reforms in the country. Though their activities are guided by some social obligations, some profits are always desirable for maintaining existence.

According to the American Institute of banking defines commercial bank as "Commercial bank is a corporation which accepts demand deposits subject to check and makes short-term loans to business enterprise regardless of the scope of its other services" (American Institution of Banking, 1972:45).

In the Nepalese context, the Nepal commercial Bank act of 2031 B.S. defines " A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loan and performs commercial banking functions and which is not a bank meant for cooperation, agriculture, industries or for such specific purpose" (Commercial Bank Act, 2031 B.S).

The role of money circulation in an economy is very important. Proper and well planned management of money directs, determines and enhances the health and productivity of total financial sector and the performance of financial sector affect the growth of the economy. Hence, money is the topic to manage and banks are the manager. The existence of a bank is for the change in every aspect of economy and is for the growth of its people. They act as intermediaries to channel funds to productive business companies and projects.

Lending as the function of bank is the cause of the origin of the banking. In the past, commercial banks used to finance for short-term, however, banks lending operation have changed considerably over the years. They have started advancing loan to industrial, agricultural and priority sectors too. In addition to deposit services and financing activities, banks provide some additional services to their customers. Along with the change in time the primary function of lending is change to other portfolios like credit cards, merchant banking etc.

Lending can be divided into fund based and non-fund based lending. Cash credit, overdrafts, bills discounting, term loan, export packing credit, project finance,

consortium finance, loan syndication, bridge financing come under fund based lending. Similarly, guarantees and bill co-acceptance facility falls under the category of non-fund based lending.

A loan is a type of debt. Like all debt instruments, a loan entails the redistribution of financial assets over time between the lender and the borrower. The borrower initially receives an amount of money from the lender which they pay back, usually but not always in regular installments, to the lender. This service is generally provided at a cost, referred to as interest on the debt. Acting as a provider of loans is one of the principal task for financial institutions. For banks loans are generally funded by deposits. For other institutions issuing of debt contracts such as bonds is a typical source of funding. Other types of debt include mortgages, credit card debt, bonds and lines of credit.

1.1.1 Brief Profile of Himalayan Bank Limited (HBL)

Himalayan Bank Limited was established in 1992 by the distinguished business personalities of Nepal in partnership with employee provident Habib Bank Limited, one of the largest commercial bank of Pakistan. It is the first commercial bank of Nepal with maximum shareholding by the Nepalese private sector. Besides commercial activities the bank also offers industrial and merchant banking. It actually started its operation from 18th January 1993 with its authorized capital shown in the following table:

Table 1.1

Capital Structure of HBL

Authorized Capital	24,00,000 shares of Rs.100/-each	Rs.24,00,00,000
Issued Capital	12,00,000 shares of Rs.100/-each	Rs.12,00,00,000
Paid-up Capital	6,00,000 shares of Rs.100/-each	Rs.6,00,00,000

Shareholders:

Bank Promoters   51%

Employees Provident Fund   14%

Habib Bank Ltd., Pakistan   20%

General Public   15%

The bank at present has nine branches in Kathmandu Valley namely Thamel (Head office), Newroad, Maharajgunj, Teku, Chabahil Swoyambhu, Tandi, Bhaktapur and Patan Besides it has twelve branches outside the valley namely Bharatpur, Birgunj, Hetauda, Bhairahawa, Biratnagar, Banepa, Dhaman, Pokhara, Butwal, Nepalgunj, Itahari and Ghorahi. The bank has a very aggressive plan of establishing more branches in different parts of Kingdom in near future.

The bank has experienced a dynamic growth and providing services to it's customers over the last 15 years. It has been the innovator in introducing many new products. Such as credit card, tele-banking, automatic teller machine (ATM), 24 hours banking, loans, international banking, safe deposit lockers, card services, SMS banking, internet banking etc.

1.1.2   Brief Profile of Nepal Investment Bank Limited (NIBL)

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

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

The name of the bank changed to Nepal Investment Bank Limited with the approval of NRB, company Registrar's office and from bank's Annual General Meeting with the following shareholding structure.

Table 1.2

Capital Structure of NIBL

Authorized Capital	2,00,00,000 shares of Rs.100/-each	Rs.2,00,00,00,000
Issued Capital	1,20,39,150.1 shares of Rs.100/-each	Rs.1,20,39,15,010
Paid-up Capital	1,20,39,150.1 shares of Rs.100/-each	Rs.1,20,39,15,010

Shareholders:

Group of Companies   50%

Rastriya Banijya Bank   15%

Rastriya Beema Sansthan   15%

General Public   20%

The holding of shares by public also implies that NIBL is one of the listed companies in Nepal Stock Exchange. NIBL came into existence under company act 2021B.S and Commercial Bank Act 2031, in the year 2042B.S., Magh 6th (1986/02/27) it started its operation with the permission of NRB.

The bank at present has twelve branches in Kathmandu Valley namely Durbar Marg (Head office), Newroad, Putalisadak, Thamel, Kalimati, Battisputali, Gongabu, Boudha, Dhumbarahi, Nayabaneshore , Seepadole and Bhotahiti. Besides it has ninteen branches outside the valley namely Birgunj, Pulchowk, Banepa, Jeetpur, Biratnagar, butwal, Bhairahawa, Pokhara, Narayangarh, Janakpur, Nepalgunj, Birtamod, Dhangadi, Surkhet, Jumla, Hetauda, Palpa, Lukla and Tulsipur.

Besides commercial banking services, the bank also offers industrial and merchant banking services. NIBL has always been committed to providing a quality service to its valued customers. The bank also offers tailor facilities to its clients, based on the unique needs and requirements of different clients. The Bank already offers services such as pre-paid mobile recharging system through its ATM, SMS banking, internet banking etc. It has also brought a new scheme to open saving account at Rs.1.00.

1.2 Statement of the Problem

After the liberalization policy in the 1980's, the number of commercial banks is increasing in Nepal. But the banking service per person is very low. Commercial banks are extending their branches only in urban areas due to low risk and high profit in those areas. As such the remote areas are deprived from facilities due to security threat. Loans are granted only on strict directives set by NRB in rural or village areas.

Commercial banks collect deposits from the public and utilize the largest portion of the deposited money for disbursing loans and advances. The balance sheets of the commercial banks reflect deposits constitute a major portion of the liabilities and loans and advances constitute a major portion of the assets. 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. Unsecured loan and investment to unproductive sectors increases the risk of bank collapse. Lending in industries and production sectors are very risky projects. Banks are switching over from project financing to consumer financing such as housing loan, education loan, vehicle loan, professional loan, personal loan. Consumer financing may result in high profit for bank but quantitatively these loans are disbursed in low amount. So, the bank should not largely depend upon the consumer financing.

Now the financial sector has been suffering from cut-throat competition. So, Nepalese commercial banks cannot escape from such condition. Because of liberal economic policy, many new banks are coming in existence day by day which creates threatening situations for existing bank to be competitive. Decrease in price and cost leadership is the best way to compete in the industry.

Thus, under various conditions are these selected banks able to perform effective lending and contribute maximum profit? Are they properly utilizing the collected funds? Are they collecting deposits in sufficient manner and granting loan in same respect.

1.3 Objectives of the Study

The main objective of the study is to evaluate the performance of the banks considering the loan management in the banking environment of Nepal. Besides this, the following objectives are mentioned for carrying out this study:

- To analyze the volume of lending made by concerned banks.
- To examine lending efficiency and it's contribution in profit.
- To enable maximum utilization of collected funds.
- To collect deposits and distribute loans and advances in same respect.
- To offer suitable and beneficial suggestions based on findings of this study.

1.4 Significance of the Study

The main function of commercial banks is to collect deposit from the mass public and mobilize it in lending to different sectors of the economy. Loan disbursement and collection is the main function of bank that contributes most in economic development of the country. As such this study reveals the real situation of both banks HBL and NIBL.

This study helps the management to know about their loose ends and gaps, which can be corrected and make new policies and strategies. The findings may be useful

8

to the outsider like depositors, debtors, investors competitor, market makers for their own behalf. They can use it in their own way such as whether to take loan or not? This study is significant to professionals, students and teachers who want to know about the loan management of commercial banks. Finally, it will also support the future researcher for their findings.

1.5 Limitations of the Study

1. Among the various commercial banks in Nepal the study is only concerned on two commercial banks HBL and NIBL.
2. This analysis covers the period of past five years.
3. The study is based on secondary data i.e. published financial documents and other related journals, the authenticity of which has not been questioned.
4. The study is submitted for the partial fulfillments of requirement for MBS degree and single handed.
5. The research for the purpose of thesis has to be done within the limited time span.
6. Only limited financial tools are used for analysis, so this study may not be sufficient for generating significant result.

1.6 Organization of the Study

The study is organized in such a way that the stated objectives can easily be fulfilled. The study report is designed in five chapters which are as follows:

Chapter I: Introduction
The first chapter includes various aspects of the study like background of the study, brief profile of HBL and NIBL, statement of the problem, objectives of the study, significance of the study and limitation of the study.

Chapter II: Review of Literature

The second chapter incorporates that the conceptual thoughts and related study regarding the subject matter.

Chapter III: Research Methodology

The third chapter deals with the research methodology, which consists of research design, sources of data and information along with different statistical and financial tools.

Chapter IV: Data Presentation and Analysis

The fourth chapter analyzes the data related with the study and presents the findings of the study and also comments briefly.

Chapter V: Summary, Conclusion and Recommendation

The final or fifth chapter includes major findings, conclusion and recommendation regarding the subject matter.

CHAPTER – II
REVIEW OF LITERATURE

This chapter is basically concerned with review of literature relevant to the topic "A study on loan Management with reference to HBL and NIBL." It consists of examination and review of related books, articles published in different economic journal, bulletin, dissertation papers, magazines, newspapers and websites. In brief, this chapter includes review of following:-

1. Conceptual Review
2. Review of related studies

2.1 Conceptual /Theoretical Review

Under this heading the concept and meaning of some of the terms and the related books that are used in this study has been discussed:-

2.1.1 Loans and Advances

Loans and advances are the most profitable of all assets of the bank. This asset constitutes primary sources of income to bank. Commercial banks main function is to create credit from its borrowed fund. The bank doing so converts liability into active asset. They are also the least liquid form if asset of the bank. Loans and advances may take different forms and are allowed against various types of securities. Granting loan and advances always carries certain degree of risk.

Loans and advances dominate the asset side of balance sheet of any bank. Similarly earnings from such loans and advances occupy major space in the income statement of the bank. However, it is very important to be reminded that most of the bank failures in the world due to shrinkage in the value of loan and advances. Hence loan is known as risky assets. Risk on non-repayment of loan

known as risky asset. Risk of non-repayment of loan is known as credit risk or default risk" (Dahal & Dahal, 2002:114).

"Effective management of the loan and the credit function is fundamental to a bank's safety and soundness. Loan management (LM) is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the LM process is so important, it is a primary supervisory activity. Assessing LM involves evaluating the steps bank management takes to identify and control risk throughout the credit process. The assessment focuses on what management does to identify issues before they become problems" (Rose, 2002:47).

As gist it is apt to quote,"Performining loans have multiple benefits to the society while non-performing loan erodes even existing capital" (Dahal, 2002:114)

2.1.2   Types of Loan

Types of loan refers to the process banks used to review their loan portfolio and assign loans to categorize or grades based on the perceived risk. The process continues review and classification of loans enables bank to monitor the quality of their loan portfolios and take corrective action to reduce risk.

Munjal (1997) has classified loan as:
a. Overdraft
b. Cash credit
c. Bills discounting

a) Overdraft

Overdraft connotes the excess amount withdrawn over their deposits. The situation of overdraft evolves when bank honors the cheques to an agreed limit. It is a kind

of working capital loan and allowed only in current accounts. Hence, it is an agreement by which the bank allows the customer to draw over and above the current account balance. The account balance fluctuates frequently since withdraw and repayment of money took place. Interest on overdraft is charged on debit balance on daily basis.

b) Cash Credit

It is the commonest form of lending done by the bank. The loan is not given directly in cash but deposit account is being opened on the name of loan taker and the amount credited to that account. In this way, every bank loan creates deposit. It may be operated within the stipulated limit and required time by the borrower. It is provided against the pledge of stock in trade, land, building, goods and machinery.

c) Bills Discounting

It is the interest rate that the Federal Reserve charges banks for short-term loans. This establishes a de facto floor for the interest rate that banks charge their customers, usually a fraction above the discount rate.

Likewise, HBL provides the following varieties of loan:
   a. Corporate Loan(funded/non-funded)
   b. Retail/Consumer Loan
   c. Small & Medium Enterprises Loan

a. Corporate Loan (Funded/Non-Funded)
HBL offers a wide range of funded credit facilities which are as follows:

i. Project/Consortium Loan
Bank extends both fixed term loan and working capital loan. Loans are provided for the establishment, capacity addition, up-gradation of existing facilitates as well

as acquisition of existing facilities. The loan is extended to manufacturing as well as service sector. And if the project is big, HBL helps financing needs of the project through consortium lending.

i. Non Revolving Cash Credit

Bank extends Non Revolving Cash Credit to finance import of capital items being imported as supplementary equipment of the existing plant and machinery.

i. Working Capital Financing

The bank extends Working Capital Loans under various headings to finance the working capital requirements.

ii. Overdraft Facility

Overdraft facility, recurring (revolving) credit facility, is offered to customers for meeting fluctuating working capital needs for funding current assets, overheads and administrative expenses.

iii. Demand Loan

Revolving Demand Loan (RDL)

This form of recurring working capital loan is extended to finance continuous working capital requirement of companies.

Short Term Demand Loan (STDL)

This is another form of working capital loan extended to finance seasonal and occasional working capital requirement of companies.

iv. Revolving Cash Credit

Revolving cash Credit is extended to finance working capital requirements particularly to finance import of raw materials (including custom duties) from

India. Similarly the bank extends Revolving Cash Credit to fiancé purchase of agriculture produce from local market as well as India.

v.   Import Credit for Telex Transfer and Demand Draft Payment

Bank extends Import Credit to finance import of goods from third countries other than India where payment through Telex Transfer of Demand Draft.

vi.   Trust Receipt Loan

The Bank extends Trust receipt Loans for financing raw materials and trading merchandise while retiring documents of the Import Letters of credit.

vii.   Export credit Facilities

The bank extends Export Credit Facilities against export letters of Credit. Pre Export Loan, Post Shipment Loan and Back to back L/C are some of the facilities that can be extended.

viii.   Pledge Loan

Against security of movable non-perishable stock merchandise the bank grants Demand Loan/Cash Credit.

ix.   Clean Bills Purchased and Discounted

The Bank extends these facilities against the Bills/Drafts/Cheque (Negotiable Instruments). The Bank purchases cheques issued by individuals, financial institutions and credit the customer's account immediately.

x.   Documentary Bills Purchased and Discounted

The bank extends loan facilities against the Documentary Bills on recourse basis.

HBL also provides non-funded credit facilities to suit funding requirements which are as follows:

i. Bank Guarantee

The Bank issues various types of Bank Guarantee Facilities like performance Bond Guarantee, Bid Bond Guarantee, Bonded Ware house Guarantee, financial Guarantee, Bid Bond Guarantee, Bonded Ware House Guarantee, Financial Guarantee, Deferred Payment Guarantee, Counter Guarantee and Advance Payment guarantee.

ii. Letters of Credit

The Bank establishes Import Letters of Credit.

a) Retail/Consumer Loans

HBL offers various types of retail/Consumer Loans which are as follows:

i. Hire Purchase Loan

The Bank extends Hire Purchase Loan for purchase of new vehicles, (including body making in case of commercial vehicles) to individuals as well as companies. The bank also finances equipment such as medical equipment, construction equipment, manufacturing machinery equipments under Hire Purchase Financing

ii. Housing Loan

Housing Loan is available to purchase readymade / under construction building (including land cost), construct a building on an already owned land, for purchase of adjacent land or extension of existing building.

iii. Subidha Loan

This is a customized loan facility offered to Customers to meet various social needs such as ceremonial expenses, education expenses, minor business dealings, home furnishing, etc.

iv. Credit Card Loan

The bank extends credit to individuals through credit cards that could be payable on monthly installment basis (credit card), fixed tenure basis (capital asset financing), etc.

v. Loan against Fixed Deposit Receipt

The Bank extends Loan against the Fixed Deposit Receipt issued by the Bank itself or by other Banks (in Nepal). Generally up to 90% of the FDR value can be disbursed as Loan.

vi. Loan against Government Bonds & Bonds of Bank

The Bank extends loans against various Bonds / Stocks / Promissory notes issued by the Government/ Nepal Rastra Bank. Under this, up to 90% of the value of such Bonds can be disbursed as Loan. Similarly, the bank can extend loans against bonds issued by commercial banks.

vii. Loan against First Class Bank Guarantees

The Bank extends various credit facilities, funded as well as non-funded, against unconditional guarantees issued by first class International Banks.

viii. Loan against Shares

The Bank also advances loan against listed shares of Public Ltd. Companies.

b) Small and Medium Enterprises Loan

As a step further to help establishment, growth and expansion of small and medium sized enterprises, Himalayan bank has developed a special loan package meant just to suit small and medium sized enterprises. Business houses coming from industrial, trading and service sector can avail of this facility to meet their

short-term and long-term financing needs. This could come in any form-funded or non-funded, depending on specific needs of the business enterprise.

i. Funded / Non-Funded Facility in range of Rs. 0.5 M to Rs. 40.0 M

The interest rates applicable on small and medium sized enterprise loan package range between 9.50% and 10.00% per annum and this depends upon the type of facility.

Whereas NIBL provides the following types of Loan:
  a. Personal Loan
  b. Loans to company / firms
  c. Loans against cash (account) pledge
  d. Loans against pledge of shares
  e. Loans against pledge of saving bonds
  f. Loans against security of authorization to deduct own or third party's account

a) Personal Loan

Personal loan, as the name suggests, is the money that is borrowed to meet personal needs. The documents required for providing personal loans in NIBL are registered charge (mortgage) over the fixed assets, demand promissory Note and undertaking to repay loan and/ or personal guarantee.

b) Loans to Company/Firms

For the purpose of company/firm loan, personal guarantee of promoters/ shareholders are required. It also require corporate guarantee of the concerned company/firm. The documents required for providing company/firm loan in NIBL are registered charge (mortgage) over the fixed assets, demand promissory note and general letter of Hypothecation where stocks and/or machinery are hypothecated and/or in the case of working capital loan.

c) Loans Against Cash (Account) Pledge

Under loan against cash pledge, cash / cash equivalent is pledged in case of borrowing loan. The documents required for cash pledge loan in NIBL are demand promissory note and personal guarantee and/or undertaking to repay loan.

d) Loans Against Pledge of Shares

Under this type of loan, shares are pledged for the purpose of borrowing loan. The documents required for shares pledges in NIBL are demand promissory note and personal guarantee and/or undertaking to repay loan.

e) Loan Against Pledge of Saving Bonds

Under this type of loan, saving bonds are pledged in case of undertaking loan. The documents required for saving bond pledge in NIBL are demand promissory note and personal guarantee and/or undertaking to repay loan.

f) Loan Against Security of Authorization to Deduct Own or Third Party's Account

Under this type of loan, authorization to deduct account is done for the purpose of borrowing loan. The documents required for this type of loan is demand promissory note, personal guarantee and/or undertaking to repay loan and letter of set off.

2.1.3 Loan Management Objectives

"Loan objectives establish specific measurable goals for the bank. The board of directors must ensure that loans are made with the following three basic objectives in mind" (Crosse, 1963:73).

- To grant loans on a sound and collectible basis.
- To invest the banks funds profitably for the benefit of shareholders and the protection of depositors.
- To serve the legitimate credit needs of their communities.

2.1.4 Principle of Loan (Credit Policy)

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. Hence, inevitable policies to be considered and analyzed for granting loan are as follows:

a. Principle of Safety Fund

The bank should insure that the money lent by them reaches to the right type of borrower ad 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.

b. Principle of Liquidity

Liquidity denotes short-term solvency of the borrower. It is necessary to be considered that the money lent out must be repaid in accordance with agreed terms of repayment. Hence, a banker clarifies that the borrowers have utilized money for their short-term needs but not in fixed assets or schemes that take a long-term finance.

c. Principle of Security

The banks need collateral (security) as cushion to grant loans and advances. In case the borrowers, defying the company's schedules, don't pay due installments, the bank can use the least weapons of recovering it's investment via liquidity of the security against which, the loan was mobilized.

d.   Principle of Purpose of Loan

The purpose of lending should be productive so that money not only remains safe but also provides a definite source of repayment. Loan request for speculation, social functions, pleasure trips, ceremonies and repayment of prior loan are rejected as they are unproductive.

e.   Principle of Profitability

Bank should generate sufficient amount of profit 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, entire activates must be suit for profitability.

d.   Principle of Spread

Portfolio of advances is to be spread not only among many borrowers of same industry but across the industries in order to minimize the risk of lending keeping. Thus, company should diversify ties lending program in various sectors of economy, business and industry and geographical areas.

2.1.5   Loan Approval process

Disbursement procedures work after the operation of loan approval process under lending conditions and disbursement procedures. Loan approving authority approves delivery of loan by one party and receipt by another party, a sum of money upon agreement expressed or implied, to repay it with or without interest. There may not be the same procedure for all kinds of loan. The process of accepting loan to primary sector and bigger project is not similar. Although good loans sometimes go bad, a loan that starts out bad is likely to stay that way. Hence, it entails the following sequences.

a. Application

Every loan process gets momentum after submission of loan request. It encompasses project proposal, historical financial statements and documents about incorporation cum legal existence.

b. Conducting the Interview

Loan consultant or loan officer meets with borrower and conduct oral interview with the applicant to gauge authenticity at the bank premise. Loan officer can answer initial questions and recommend best product based on unique situation. It should be done in a friendly manner. It clarifies about loan purpose, amount of loan, repayment source, history of business and banking relationship.

c. Credit Analysis

"Analyzing a credit request includes analysis of the character, capacity and capital position of the potential borrower and evaluation of those features in terms of the current economy and the economic conditions predicted over the loan period"(Johnson et al, 1940:174).

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 3Cs 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 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, and enquiries 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 beheld 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. 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 affects are 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 is therefore, a must for a banker to make sound loans and advances.

d. Forecast and Risk Rating System

The analyst has to forecast impending major risk based on the finding of historical analysis on the present considering the present and foreseeable future environment. The analyst has to disclose the extent to which inherent risks will be mitigated and how unmitigated risk can be covered.

e. Return

Income received on investment plus any change in market price, usually expressed as a percent of the beginning market price of the investment. Total return (i.e. interest, fee and commission) should be calculated through analysis and compare either it meets bank's standard or not.

f. Liquidation

The bank may decide to bring liquidation so as to satisfy a creditor if the possibility of the borrower's long-rang survival is minimal. This is mostly persisting by the borrowers. Once the liquidation decision is taken and then a plan of action that includes the method of liquidation and settlement of debt obligation should be adopted.

g. Creditworthiness and Debt Structure

Structuring of debt facility to be released is essential if the analysts find the credit worthiness of borrower and determines to grant loan.

h. Preparation of Credit Report

Prepare the structured credit report containing the loan approval process in a precise order. It entails the answers to the vital questions during initial interview as well as consequences of checking various sources of credit information and the results of financial statement analysis.

2.2   Review of Relevant Directives

Commercial banks could not recognize the importance of the quality credit and banking sector failed to witness the expected developments. Subsequently, the banking sector faced the problem of bad debts, overdue loans, accrued income, accumulation of non-banking assets and excess liquidity in the banking system. Thus, to prevent this, 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. At present the number of guidelines issued by NRB to commercial bank reaches sixteen, which are as follows:

1. The provision of minimum capital fund to be maintained by the commercial bank.
2. The provision of loan classifications and loan loss provisioning on the credit.
3. The provision relating to limit on credit exposure and facilities to a single borrower, group of related borrowers and single sector of the economy.
4. The provision relating to accounting policy and the structure of financial statements to be followed by the commercial banks.

5. Regulation relating to minimization of risk inherent in the activities of commercial banks.

6. The provision o institutional good governance to be followed by commercial banks.

7. Time frame for implementation of regulatory directives issued on connection with inspection and supervision of commercial banks.

8. Regulation relating to investment in shares and securities by commercial banks.

9. The provision of submission of statistical data to the NRB. Banking management division and inspection and supervision division.

10. Regulation relating to sale and ownership transfer of promoters shares.

11. Regulation relating to, stringent blacklisting procedure for loan defaulters.

12. The provision relating to compulsory deposited amount of NRB.

13. Regulation relating to developing the branch office of commercial banks.

14. Provision relating to interest rates.

15. Provision relating to collection of financial sources.

16. Provision relating to consortium financing.

2.2.1 NRB Directives Relating to Loan Classification and Loan Loss Provision (www.nrb.org.np)

Loan classification refers to the process banks used to review their loan portfolio and assign loans to categorize on the perceived risk and as per guidelines of central bank. The classification of loans enables bank to monitor the quality of their loan portfolios and take corrective action to reduce risk. In the context of Nepal, NRB has provided following directives for classification of loan and advances and its loss provision for the purpose of minimizing possible risk in bank's lending by using authority given by sub section 1 of section 23 of NRB Act 2012 (revised) and section 19 (ka) of Commercial Bank Act (revised). As per directives issued by NRB, loan is classified into four categories:

a) Pass Loan

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.

b) Sub Standard Loan

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.

c) Doubtful Loan

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.

d) Loss Loan

All loans and advances which are past due for a period of more than 1 year as well as advance which have at least possibility of recovery or considered unrecoverable ad those having thin possibility of even partial recovery in future has been included in this category.

It should be noted that the above classification is only for the purpose of computing the amount of provision that should be made with respect to bank advances and certainly not for the purpose of presentation of advances in the banks balance sheet. The directives of NRB relating to classification and provisioning of loan and advances are changing over time. Here is the table which shows the loan classification.

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 2 years	Loans and advance 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 year

Additional Arrangement in Respect of Pass Loan

Loan and advances fully secured by gold, silver, fixed deposit receipts, credit cards and government securities shall be include under "pass" category. Loans against fixed deposit receipts of other banks shall also qualify for inclusion under pass loan. However, where collateral of fixed deposit receipt or government securities or NRB bonds is placed as extra security, such loan has to be classified on the basis of clause 1 to clause 7. While renewing working capital loan having maturity period up to one year can be classified as pass loan. If the interest of working capital nature loans and advance is not regular, such loan and advances should be classified on the basis of interest outstanding period.

Additional Arrangement in Respect of Loss Loan

Even if the loan is not past due, loans having ay or all of the following discrepancies shall be classified as "loss".

a. Security is not sufficient,

b. The borrower has been declared bankrupt,

c. The borrower is absconding or cannot be found,

d. Purchased or discounted bills are not realized within 90 days from the due date and non fund based letter of credit and guarantees etc are not realized with in 90 days from the date of conversion into fund based are not realized within 90 days,

e. The credit has not been used for the purpose originally intended,

f. Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation,

g. Loan provided to the borrowers included in the blacklist of credit information center (CIC),

h. Project or business is not in operative conditions, project or business is not in operation,

i. Credit card Loan is not written off within 90 days from past due date.

Additional Arrangements in Respects of Term Loan

In respect of term loans, the classification shall be made against the entire outstanding loan on the basis of the past due period of overdue installment.

Prohibition to Recover Principal and Interest by Overdrawing the Current Account and Exceeding the Overdraft Limit

Principal and interest on loans and advance shall not be recovered by overdrawing the borrower's current account or where overdraft facility has been extended, by overdrawing such limit. However, this arrangement shall not be constructed as prohibitive for recovering the principal and interest by debiting the customer's

account. Where a system in the bank exists as to recovery of principal and interest by debiting the customer's account, and recovery is made as such resulting in overdraft, which is not settled within one month, such overdrawn principal amount shall also be liable to be include under the outstanding loan and such loan shall be downgraded by one step from its current classification. In respects if recognition of interest, the same shall be as per the clause relating to income recognition mentioned in directives no 4.

Letter of Credit and Guarantees

If letter of credit and guarantees and other contingent liabilities converted into fund based liabilities and have to be paid, in such condition such loan shall be classified as pass loan within 90 days from the date of conversion into fund based. After 90 days such loan shall be classified as loss loan.

Rescheduling and Restructuring of the Loan

If the bank is confident on the following bases of written plan of action submitted by borrower, it may reschedule or restructure the loans and advances. Clear bases of rescheduling or restructuring should be attached with loan files.

a. If thesis proof of adequate documents and collateral security relating to loan.
b. If the bank is confident in recovery of restructured or rescheduled loans and advances.

In addition to written plan of action for rescheduling or restructuring of Loan, payment of at least 25 percent of total accrued interest up to the date of rescheduling of restructuring should have been collected.

Loan Loss Provisioning

The loan loss provisioning, on the basis of the outstanding loans and advances and bills purchases classified as per this directives, shall be provided as follows:

Classification of Loans	Loan Loss Provision
Pass	1Percent
Sub standard	25Percent
Doubtful	50 Percent
Loss	100 Percent

2.3 Review of Related Studies

In this subject, effort has been made to examine and review some related articles which has been published in several journals, bulletin of World Bank, newspapers and other related books.

Bhisma Raj Dhungana (2058), in his article titled "Why Assets Management Co. is considered the best to solve the non-performing loan problem (NPL)?" as above has tried to highlight one of the approach mainly Assets Management Company (AMC) for resolving the problem of NPL. As per him, AMC is specialize financial intermediary to manage the non-performing and distress loans of banks and financial instructions who buy the NPL from financial institution and take necessary steps to recover the maximum value from the acquired assets. As per his view, if NPLs are not resolved in time there would be inherent direct of indirect costs to the economy. As stated by him NPL may arise due to the external factors like decrease in market value of Collateral deterioration borrower's repayment capacity, economic slowdown borrower's misconduct, improper credit appraisal system, ineffective credit monitoring and supervision system Hence, he suggested that NPL should be kept at minimum level and the specialized institution such as AMCs should manage the distressed loans.

He concludes, "As in most of the countries, Nepalese Financial System is largely dominated by the banking sector. The banking sector is severely affected by the NPL problem, it is estimated that the NPL of the Nepalese banking system is around 16%. Therefore there is no doubt that it has serious implication on the

economic performance of the country. It will be the eclipse in the development of financial soundless in the economy, if not controlled in time.

"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 and 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).

"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 Banijya 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 customer's services by setting them to the exposure of the joint venture banks"(Shrestha, 1990:31).

"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 rated and devices promptness of these private banks have drowned 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).

"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).

2.4 Review of Previous Studies

Shilpakar (2004), in her study *"A Study on Lending Practices of Finance Companies of Nepal"* aimed to analyze performance of finance company regarding lending quality and quantity and its contribution in profitability. As per her view, loan and advances is one of the main sources of income of finance companies. "Loan loss provision is like a byproduct of loans and advances thus, with loans and advances, loan loss provision does increase in synchronize."

She recommended that loan and advances of finance companies are increasing and the non-performing loans and loan loss provision. Hence extra efforts should be enforced to control over NPL.

Bhattarai (2006), has stated in her research *"Implementation of Directives Issued by Nepal Rastra Bank: A comparative Study of Nepal SBI Bank Ltd. and Nepal Bangladesh Ltd."* to analyze the various aspects of NRB directives such as capital adequacy and loan classification and loan provisioning. In her view, the loan classification helps to the banks to monitor the quality of their loan and advances and to take step towards the remedial action in the credit quality of their loan and advances.

She recommends, "The banks should be very careful while analyzing the paying capacity of its credit clients. With longer period of past due, the bank will end up increasing its provisions which will keep the bottom line low if the bank is not careful."

Ojha (2001), on *"Lending Practices"* study on Nabil Bank Limited(NBL), Standard Chartered Bank Limited(SCBL) 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 constant 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 ratio 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

35

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 2001 for study of lending practices of NBL, SCBL and HBL.

2.5 Research Gap

There is a certain gap between the present research and past research. The gap between earlier studies and this study is that, this study analysis the loan management of HBL and NIBL. Both banks are joint venture banks. Loan management can be determined by various factors. In this study loan management is measured by various statistical tools and trend analysis. Thus, present study tries to define loan management by applying those various facts which may be referred as valuable piece of research work.

CHAPTER – III
RESEARCH METHODOLOGY

3.1 Introduction

Research is systematic and organized effort to investigate a specific problem that needs a solution. The process of investigation involves a series of well thought out activities of gathering, recording, analyzing and interpreting the data with the purpose of findings answer to the problem. Thus, the entire process by which we attempt to solve problems is called Research Methodology. It is composed of both parts of technical aspect and logical aspect on the basis of historical data.

Research methodology is a way to systematically solve the research problems. It helps us to find out accuracy, validity and suitability. The justification on the present study cannot be obtained without help of proper research methodology.

"Research Methodology refers to the various sequential steps to be adopted by a researcher in studying problem with a certain objective in view. It is a 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).

Research can be conducted on the basis of primary and secondary data. Here in the study all the data are secondary and the observed data is analyzed with using appropriate financial and statistical tools.

3.2 Research Design

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. Infect, 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. The main objective of this research study is to examine and evaluate the loan management of the concerned banks (HBL and NIBL).

"A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure"(Kothari, 1992: 25).

A true research design is basically concerned with various steps to collect the data for analysis and draw a relevant conclusion. The research design allows the researchers to take an appropriate measure and direction towards the predetermined goals and objectives. For this study analytical and descriptive research design has been followed.

3.3 Period Covered

The study covered the period of five years from the fiscal year 2003 to 2008. Data were taken from HBL & NIBL bank and the analysis was made on the basis of those five years data.

3.4 Source and Use of Data

Both primary and secondary sources of data have been collected in order to achieve the actual data as far as available.

a. Primary Data

The primary data is itself collected data from the records of relevant concerned banks. The primary data is collected from the field visit, questionnaire and interview method. In some particular cases responses from loan department of concerned banks (HBL and NIBL) has been conducted.

b. Secondary Data

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

- Annual report of HBL and NIBL banks form the fiscal year
- Prospectus of HBL and NIBL banks
- Academic Books
- NRB Directives
- NRB Reports
- Previous related studies
- Books and publications
- Journal and articles
- World Wide Web; the internet.

3.4.1. Population and Sample

The term population means the entire group of organization of the same nature on its services and product in general. At present, there are altogether 23 commercial banks operating in our country. Out of them, only two banks (i.e. HBL and NIBL) were selected as sample of the total population so as to fulfill the objective of research work.

3.4.2. Data Collection Technique

The technique used to achieve the data is the annual report of HBL and NIBL collected from their respective offices. Several publication of NRB reports were collected from concerned research department of NRB. Various previous studies, textbooks and unpublished dissertation have been obtained by visiting Tribhuwan University of central library and Shanker Dev Campus library. Likewise, the data has been collected from interview method and through internet as well.

3.4.3. Data Analysis Tools

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

a. Financial Tools

Financial tools help to consider the financial strengths and weaknesses of the firm by establishing relationship between the items of the balance sheet and profit and loss account.

"Through the application of analytical tools, profitability and financial health of a concern is evaluated in a proper, legal and scientific manner" (Jain,1999:36).

Financial analysis refers to an assessment of the viability, stability ad profitability of a business and sub-business. It is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and other reports.

Ratio Analysis

A tool used by individuals to conduct a quantitative analysis of information in a company's financial statements is known as ratio analysis. Ratios are calculated from current year numbers and are then compared to previous years, other companies, the industry, or even the economy to judge the performance of the company. Ratio analysis is predominately used by proponents of fundamental analysis.

"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".

There are many ratios that can be calculated from the financial statements pertaining to a company's performance, activity, financing and liquidity. This has been further divided into the following sub-sections.

i. Liquidity Ratio

Liquidity ratios are applied to measure the ability of the firms to meet short term obligations. It measures the speed of firms to convert the firms asset into cash to meet deposit withdraws and other current obligations.

The denominator of a liquidity ratio is the company's current liabilities, i.e., obligations that the company must meet soon, usually within one year. The numerator of a liquidity ratio is part or all of current assets. Perhaps the most common liquidity ratio is the current ratio, or current assets/current liabilities. The following are the various ratios relating to liquidity which are used to determine the loan management of the subjected joint venture banks.

- Cash and bank balance to total deposit ratio
- Cash and bank balance to current assets ratio
- Investment on government securities to current assets ratio

ii. Assets/Liability Management Ratio

The assets/Liability management ratios, measures the proportion of various assets and liabilities in balance sheet. The roper management of assets ad liability ensures its effective utilization. The banking sectors convert the liability into

assets by providing various loans to individuals, group or companies. 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 ratio which is used in this study.

- 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

iii. Activity Ratio

Activity ratio means accounting ratios that measure a firm's ability to convert different accounts within their balance sheets into cash or sales. It 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.

- Loans and advances to Total Deposit Ratio
- 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
- Interest Income to Interest Expenses Ratio

iv. Profitability Ratio

Profit is only appeared when there is positive difference between total revenues and total cost over a certain period of time. Profitability ratios show the combined effects of liquidity, assets management. And debt on operating results. They are very helpful to measure the overall efficiency of operations of a firm. It is a true indication of the financial performance of each and every business organization.

Here profitability ratios are calculated and evaluated in terms of the relationship between net profit and assets. The given ratios are used to determine the efficiency of lending in quality and contribution on total profitability.

- Net Profit to Shareholders Equity ratio
- Equity Per Share (EPS)

b. Statistical Tools

Statistical tools are the mathematical techniques used to facilitate the analysis and interpretation of numerical data. The value of statistics lies with organizing and simplifying data, to permit some objective estimate showing that an analysis is under control or that a change has occurred. A multitude of different statistical tools is available, some of them simple, some complicated, and often very specific for certain purposes. The figure provides detailed description and tabulate as well as analyze data without subjectivity, but only objectivity. 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:

I.   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:

$$r_{xy} = \frac{\Sigma xy - \frac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \frac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \frac{(\Sigma y)^2}{N}}}$$

Where,

N = No. of observation of X and Y

ΣX = Sum of the observation in series X

ΣY = Sum of the observations in series Y

ΣX^2 = Sum of the observations in series X

ΣY^2 = Sum of the observations in series Y

ΣXY = 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 position 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.

II. Probable Error

The probable error denoted by P.E. is used to measure the reliability ad test of significance of correlation coefficient. Significance of relationship has been tested by using the probable error (P.E.) and it is denoted by the following model:

Error (P.E.) $= 0.6745 \times \frac{1-r^2}{\sqrt{n}}$

Where,

        r = the value of correlation coefficient

        n = number of pairs of observations

    if r < P.E., it is insignificant, i.e. there is no evidence of correlation

    if r > P.E., it is significant

    if P.E. <r< 6 P.E., nothing can be concluded

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.

III.   Coefficient of Determination (r^2)

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

IV. Trend Analysis

A widely and most commonly used method to describe the trend is the methods of least square. Let the trend line between the dependent variable y and the independent variable x (i.e. time) be represented by:

$$Y_c = a + bx \dots\dots\dots\dots\dots \text{(i)}$$

Where,

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

    a = y intercept or value of y when x = 0

    b = slope of the trend line or amount of change that comes in y of a unit change in 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. And x is an independent variable.

To find the value of x and y, the following equations should be solved;

    $\Sigma Y = na + b\Sigma X \dots\dots\dots\dots\dots \text{(ii)}$

    $\Sigma XY = a\Sigma X + b\Sigma X^2 \dots\dots\dots\dots \text{(iii)}$

CHAPTER – IV
DATA PRESENTATION AND ANALYSIS

This chapter deals with the presentation and analysis of data collected from various sources. The objective of this chapter is to evaluate and analyze the financial performance as well as graphical presentation which are mainly related to loan management of the related banks. 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. 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 loan management of the commercial banks.

4.1.1   Loans and Advances to Total Assets Ratio

The ratio of loans and advances to total assets measures the volume of loans and advances in the structure of total assets. The high degree of ratio indicates the good performance of the banks in mobilizing its fund by way of lending functions. However, reverse states; the high degree is representative of low liquidity ratio. Granting loans and advances always carries a certain degree of risk. Thus, this asset of banking business is regarded as risky assets. The low ratio is indicative of low productivity and high degree is indicative of safety in liquidity and vice versa.

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)

Fiscal Year	Loan and Advance	Total Assets	Ratio in %
2003/2004	12919	25729	50.21
2004/2005	13451	28871	46.59
2005/2006	15761	30579	51.54
2006/2007	17793	34314	51.85
2007/2008	20179	36858	54.74
Average			50.99

(Source: Annual Reports of HBL)

Figure 4.1

Loan and Advance to Total Assets Ratio of HBL

From the above table, it is clear that FY 2007/2008 has the highest contribution to loan and advances in total assets with (54.74%). The lowest is in FY 2004/2005

with the ratio of (46.59%). Average ratio is (50.99%). The ratio is below average for the year 2003/2004 and 2004/2005 and above average for the year 2005/2006, 2006/2007 and 2007/2008
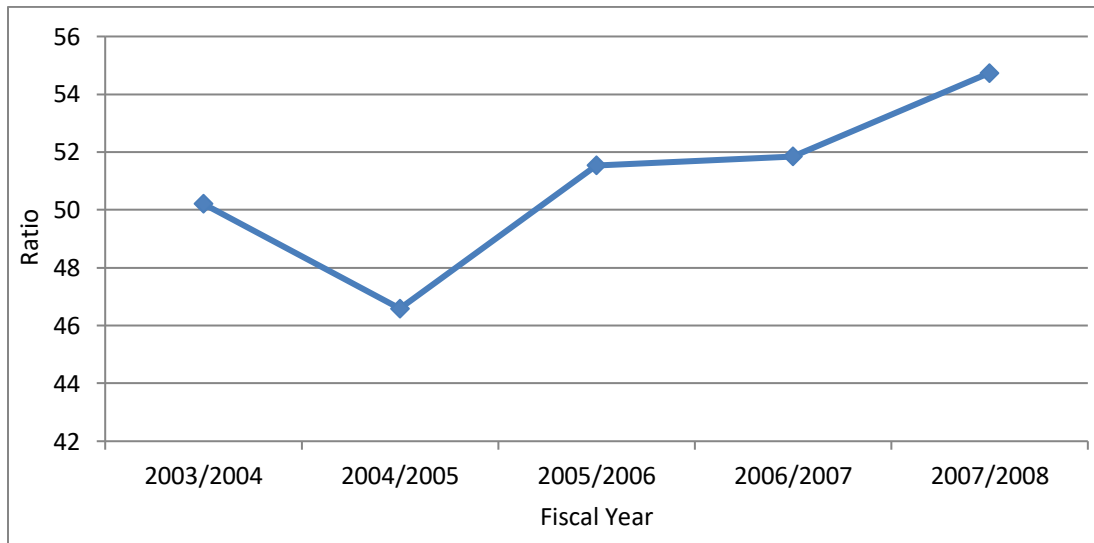
Table 4.2

Loans and Advance to Total Assets Ratio of NIBL

(Rs. in millions)

Fiscal Year	Loan and Advance	Total assets	Ratio in %
2003/2004	7124	13255	53.75
2004/2005	10453	16063	65.08
2005/2006	13178	21330	61.78
2006/2007	17769	27590	64.40
2007/2008	27529	38873	70.82
Average			63.17

(Source: Annual Reports of NIBL)

Figure 4.2

Loan and Advance to Total Assets Ratio of NIBL
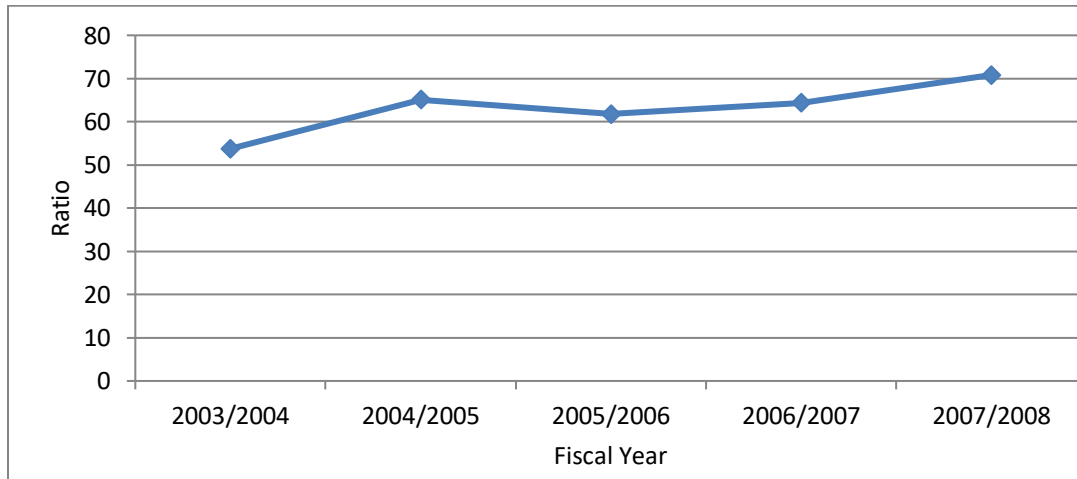
From the above table, it is clear that FY 2007/2008 has the highest contribution to loan and advances in total assets with 70.82%. The lowest is in FY 2003/2004 with the ratio of 53.75%. Average ratio is 63.17%. The ratio is below average for the year 2003/2004, 2005/2006 and above average for the year 2004/2005, 2006/2007 and 2007/2008.

By comparing the above two table it shows that the loans and advance to total assets of NIBL is higher than HBL. That means NIBL has good lending performance. Similarly the ratio of HBL is maximum i.e. 54.74% in the year 2007/2008 and the ratio of NIBL is maximum i.e. 70.82% in the year 2007/2008.

4.1.2 Loans and Advance and Investment to Total Deposit Ratio

Loans and advances and investment are the major area of fund mobilization. This is the major area where the funds collected as deposits are channeled. 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)

Fiscal Year	Loan and Advance and Investment	Total Deposit	Ratio
2003/2004	22211	22010	1.00
2004/2005	25143	24814	1.01
2005/2006	26651	26490	1.00
2006/2007	29615	30048	0.99
2007/2008	33519	31842	1.05
Average			1.01

(Source: Annual Reports of HBL)

Figure 4.3

Loan and Advance and Investment to Total Deposit Ratio of HBL
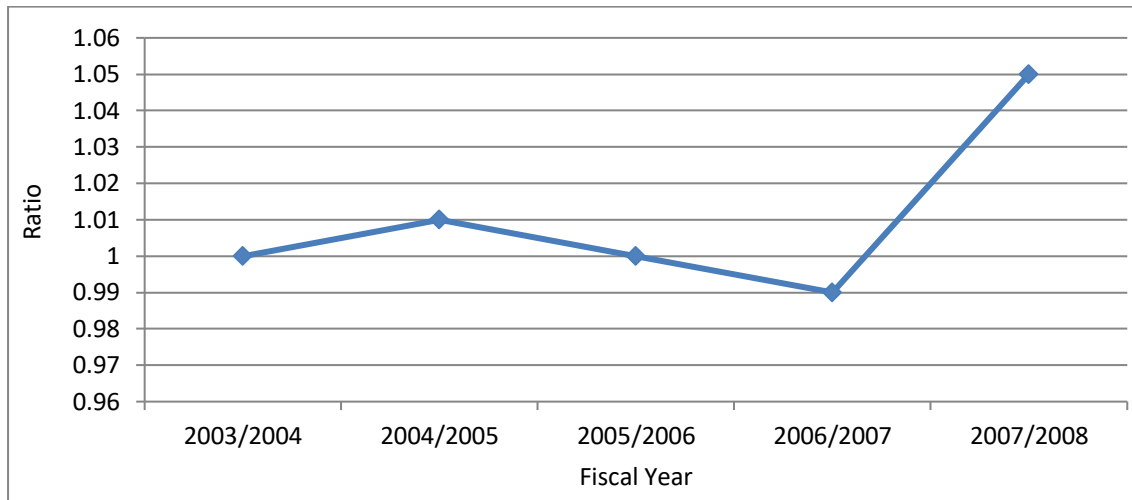
Table 4.4

Loan and Advance and Investment to Total Deposit Ratio of NIBL

(Rs in millions)

Fiscal Year	Loan and Advance and Investment	Total Deposit	Ratio
2003/2004	10986	11525	0.95
2004/2005	14387	14255	1
2005/2006	18781	18927	0.99
2006/2007	24275	24489	0.99
2007/2008	34403	34451	0.99
Average			0.98

(Source: Annual Reports of NIBL)

Figure 4.4

Loan and Advance and Investment to Total Deposit Ratio of NIBL
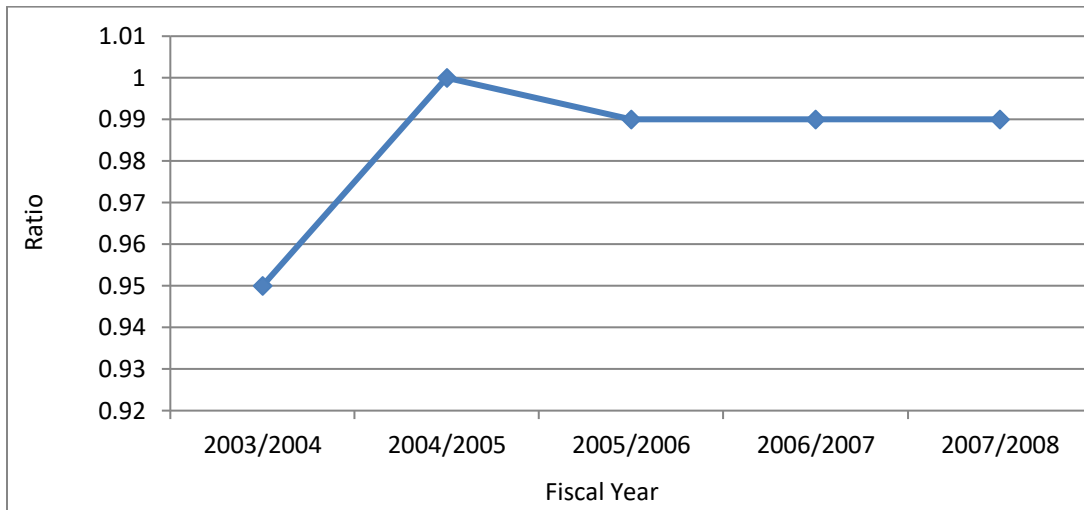
The above table shows the ratio of Loans and advances and investments to total deposits. This means the portion of deposit being mobilized to generate income. The above table shows the loans and advance and investment to total deposit of HBL is higher than NIBL. That means HBL has good lending performance. Similarly, the ratio of HBL is maximum i.e. 1.05 in the year 2007/2008 and the ratio of NIBL is maximum i.e. 1 in the year 2004/2005. 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)

Fiscal Year	Investment	Loan & Advance & Investment	Ratio
2003/2004	9292	22211	0.42
2004/2005	11692	25143	0.46
2005/2006	10889	26651	0.41
2006/2007	11822	29615	0.40
2007/2008	13340	33519	0.40
Average			0.42

(Source: Annual Reports of HBL)

Figure 4.5

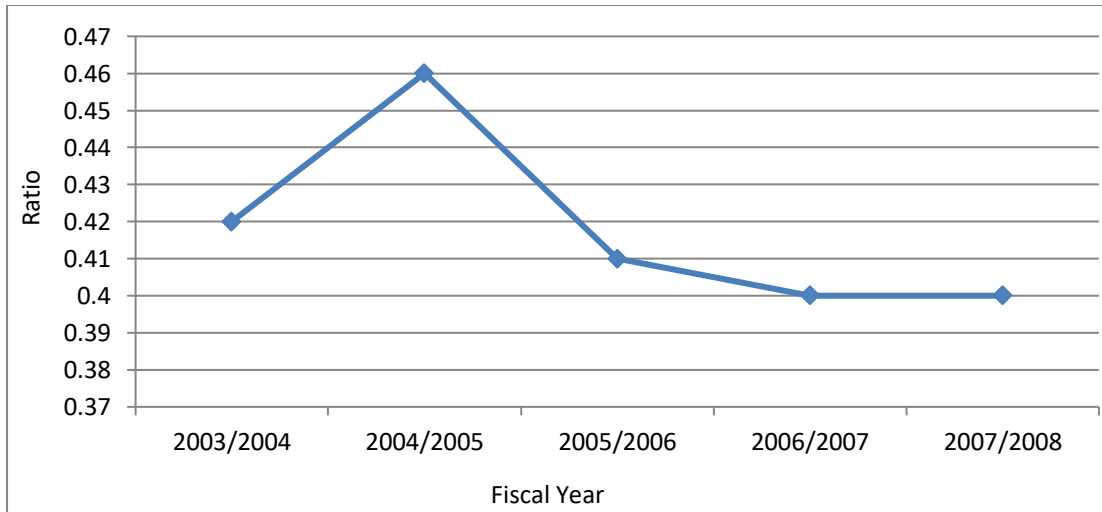### Investment to Loan and Advances and Investment Ratio of HBL

Table 4.6

Investment to Loan and Advances and Investment Ratio of NIBL

(Rs. In millions)

Fiscal Year	Investment	Loan & Advance & Investment	Ratio
2003/2004	3862	10986	0.35
2004/2005	3934	14387	0.27
2005/2006	5603	18781	0.29
2006/2007	6506	24275	0.26
2007/2008	6874	34403	0.19
Average			0.27

(Source: Annual Report of NIBL)

Figure 4.6

Investment to Loan and Advances and Investment Ratio of NIBL
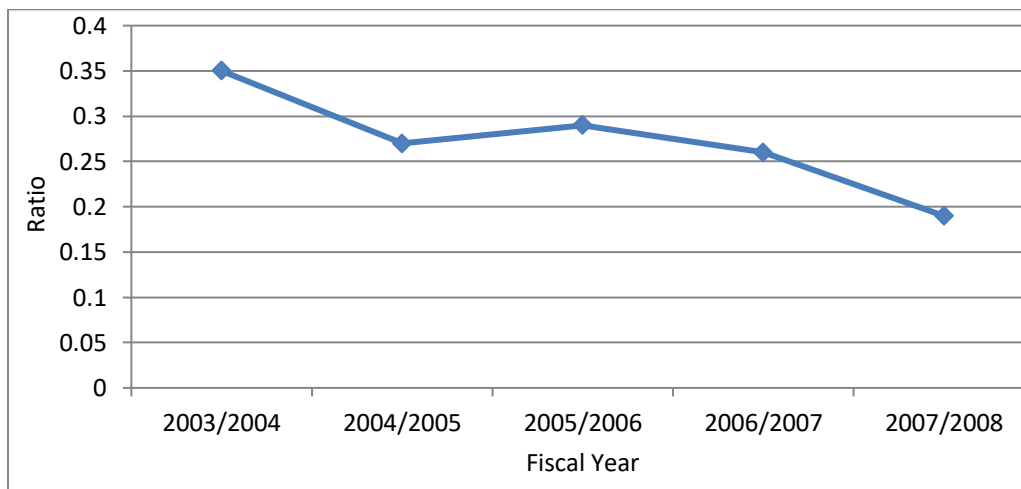
The above table shows the ratio of investment to loan and advances and investments. The ratios of HBL are the highest throughout the study period. The average mean ratio of HBL is 0.42 and NIBL is 0.27. HBL has the higher ratio in the F/Y 2004/2005 i.e. 0.46 and NIBL has the higher ratio in the F/Y 2003/2004 i.e. 0.35. This indicates it has lowest degree of investment in risky 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 business.

Table 4.7

Loans and Advance to Shareholder's Equity Ratio of HBL

(Rs. in millions)

Fiscal Year	Loan and Advance	Shareholder's Equity	Ratio in %
2003/2004	12919	2291	5.64
2004/2005	13451	2568	5.24
2005/2006	15761	2885	5.46
2006/2007	17793	2942	6.04
2007/2008	20179	3195	6.32
Average			5.74

(Source: Annual Report of HBL

Figure 4.7

Loans and Advance to Shareholder's Equity Ratio of HBL
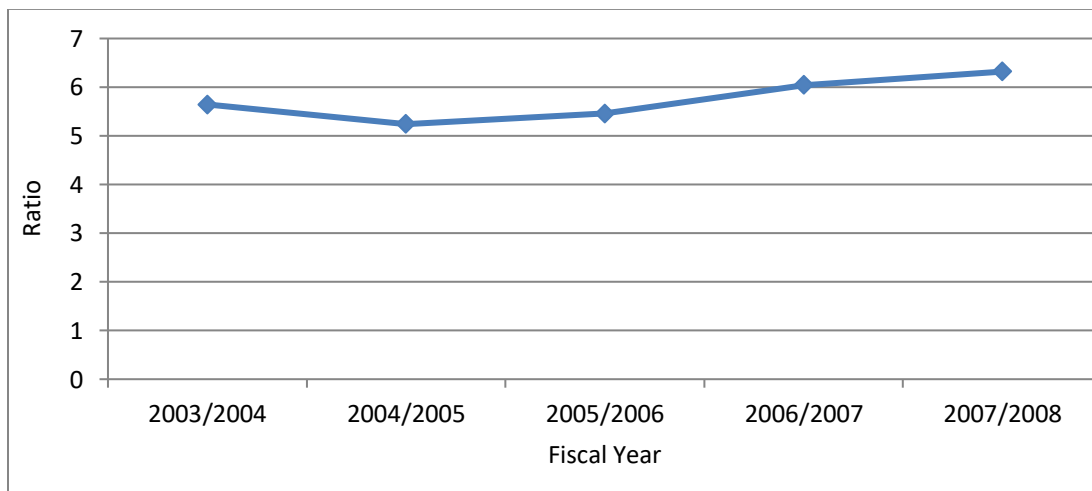
Table 4.8

Loans and Advance to Shareholder's Equity Ratio of NIBL

(Rs. in millions)

Fiscal Year	Loan & Advance	Shareholder's Equity	Ratio in %
2003/2004	7124	729	9.78
2004/2005	10453	1180	8.86
2005/2006	13178	1415	9.31
2006/2007	17769	1878	9.46
2007/2008	27529	2686	10.25
Average			9.53

(Source: Annual Reports of NIBL)

Figure 4.8

Loans and Advance to Shareholder's Equity Ratio of NIBL
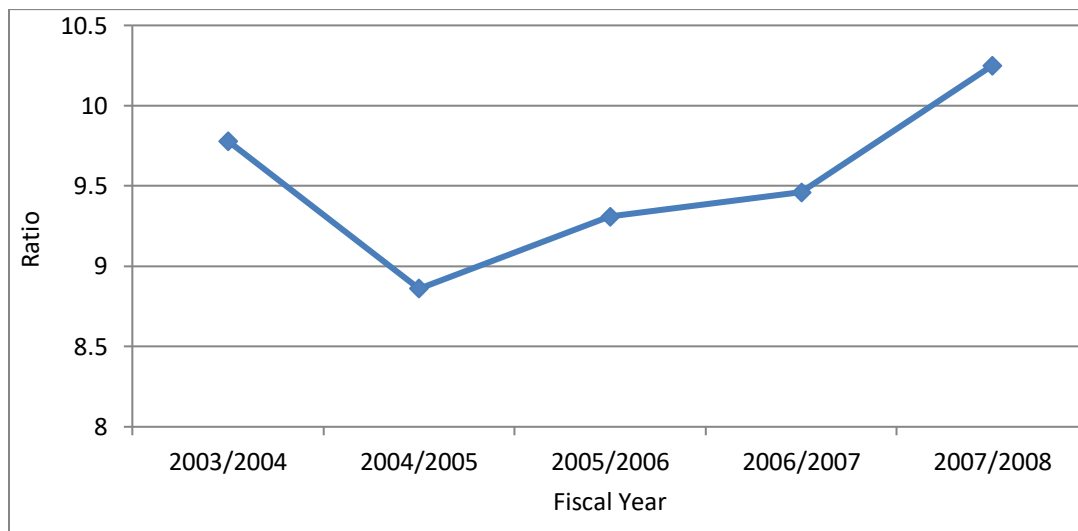
The above two table shows the ratios of loans and advances to shareholder's equity of HBL and NIBL. NIBL has higher average mean than HBL (9.53%>5.74%). NIBL has been able to generate high volume of loan and advances than HBL. If the ratios are below the combined mean, it can be concluded that they have not succeeded in increasing loans and advances in proportion to the size of their capital.

56

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 describe the quality of asset inform 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 and loss account 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

(Rs. in millions)

Fiscal Year	Loan Loss Provision	Loan and Advance	Ratio
2003/2004	967	12919	0.075
2004/2005	1026	13451	0.076
2005/2006	1119	15761	0.071
2006/2007	795	17793	0.045
2007/2008	682	20179	0.034
Average			0.0602

(Source: Annual Reports of HBL)

57

Figure 4.9

Loan Loss Provision to Total Loan and Advance of HBL

Table 4.10

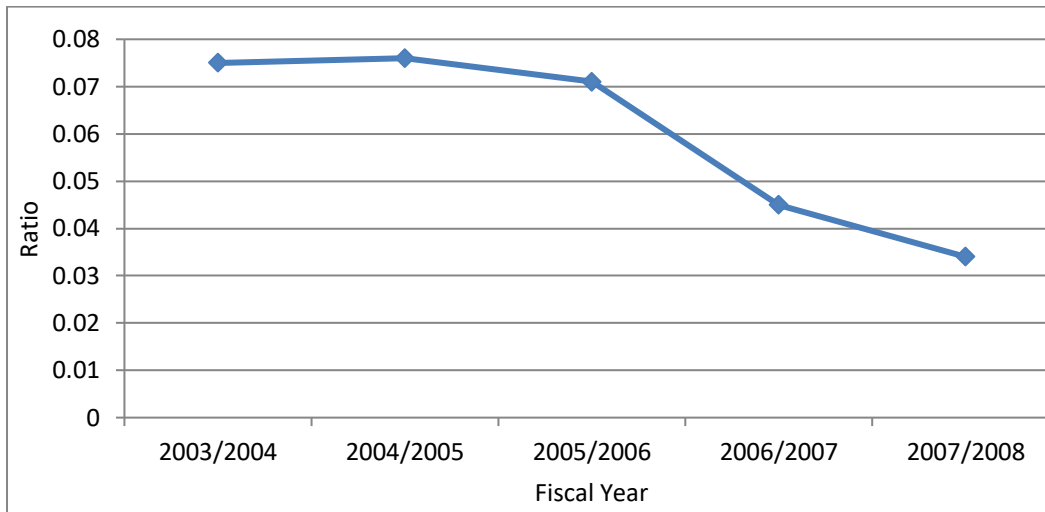**Loan Loss Provision to Total Loan and Advance of NIBL**

(Rs. In millions)

Fiscal Year	Loan Loss Provision	Loan & Advance	Ratio
2003/2004	206	7124	0.029
2004/2005	327	10453	0.031
2005/2006	401	13178	0.030
2006/2007	482	17769	0.027
2007/2008	532	27529	0.019
Average			0.027

(Source: Annual Reports of NIBL)

Figure 4.10

Loan Loss provision to Total Loan and Advance of NIBL
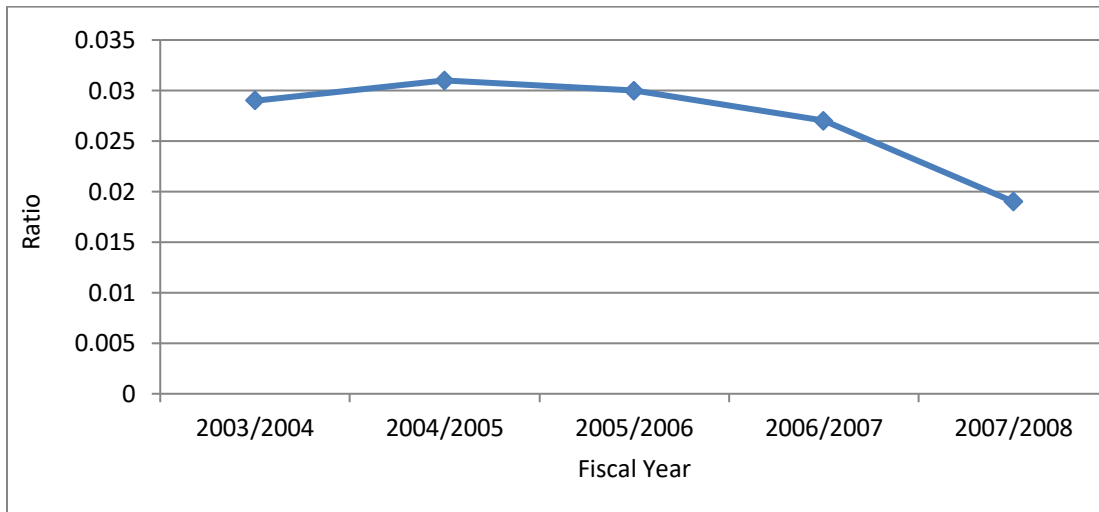
The above table shows that NIBL has the lowest average mean ratio of loan loss provision to HBL. NIBL has the lowest mean ratio of loan loss provision to total loan i.e. 0.027. All the commercial banks have not consistency in their mean ratio in different years. Both the ratio of HBL & NIBL is in decreasing 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)

Fiscal Year	Non-Performing Loan	Loan and Advance	Ratio
2003/2004	1147	12919	0.08
2004/2005	1001	13451	0.07
2005/2006	1040	15761	0.06
2006/2007	641	17793	0.03
2007/2008	477	20179	0.02
Average			0.05

(Source: Annual Reports of HBL)

Figure 4.11

Non-Performing Loans to Total Loans and Advances Ratio of HBL
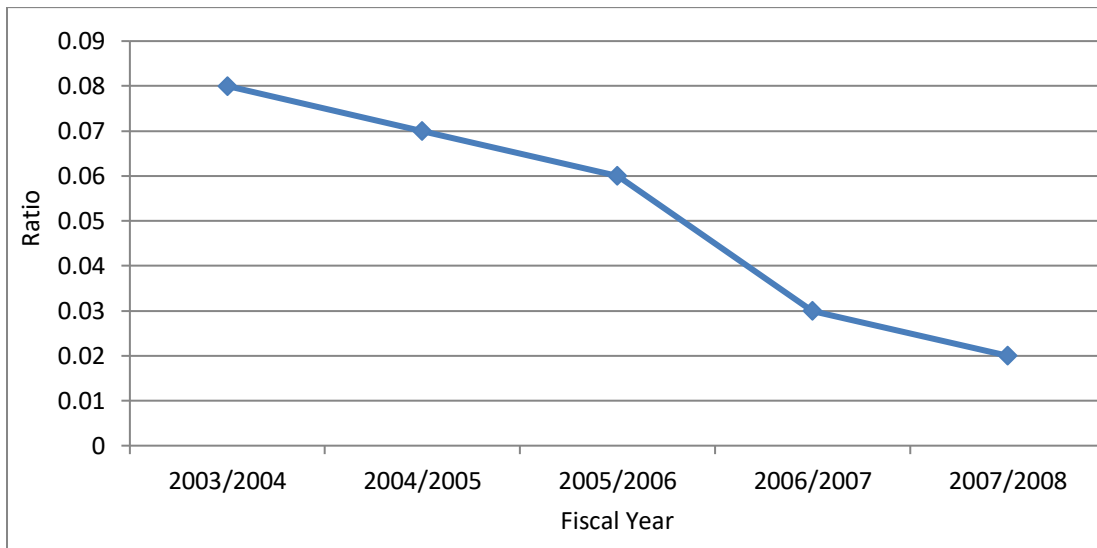
Table 4.12

Non-Performing Loans to Total Loans and Advances Ratio of NIBL

(Rs. in millions)

Fiscal Year	Non-Performing Loan	Loan and Advance	Ratio
2003/2004	181	7124	0.02
2004/2005	280	10453	0.02
2005/2006	272	13178	0.02
2006/2007	421	17769	0.02
2007/2008	309	27529	0.01
Average			0.018

(Source: Annual Reports of NIBL

Figure 4.12

Non-Performing Loans to Total Loans and Advances Ratio of NIBL
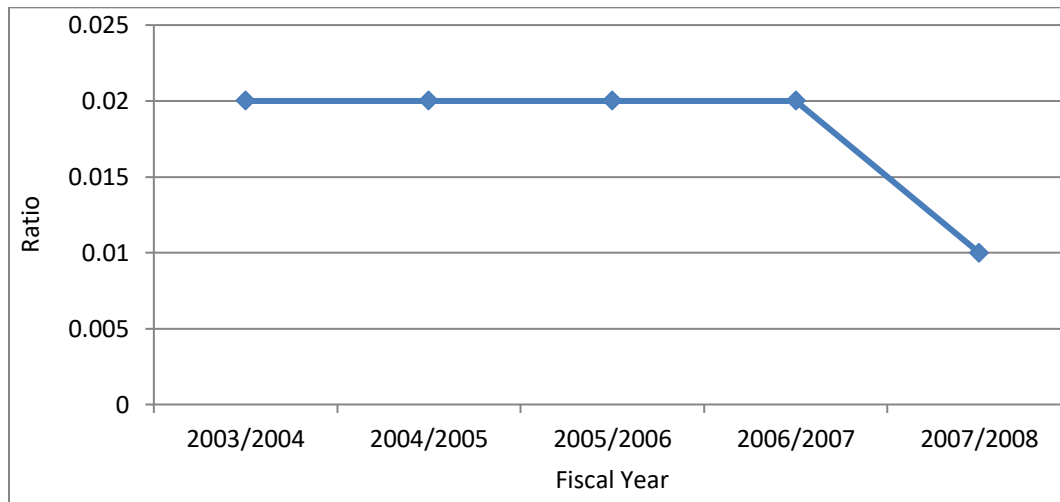
The above table exhibits that the non- performing loan to total loans and advances ratio of the concerned banks. The average mean ratio of HBL is high i.e. 0.05 than NIBL i.e. 0.018. HBL has maintained a low ratio of 0.02 in the F/Y 2007/2008 than NIBL i.e. 0.01 in the F/Y 2007/2008. HBL has reduced its non performing loans by large percentage during the five years of period from 0.08 to 0.02 whereas NIBL has constant non performing loan throughout the five year period.

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

(Rs. in millions)

Fiscal year	Interest Income	Total Income	Ratio
2003/2004	1245	1028	1.21
2004/2005	1446	1198	1.20
2005/2006	1626	1395	1.16
2006/2007	1775	1396	1.27
2007/2008	1963	1607	1.22
Average			1.21

(*Source: Annual Reports of HBL)*

Figure 4.13

Interest Income to Total Income Ratio of HBL
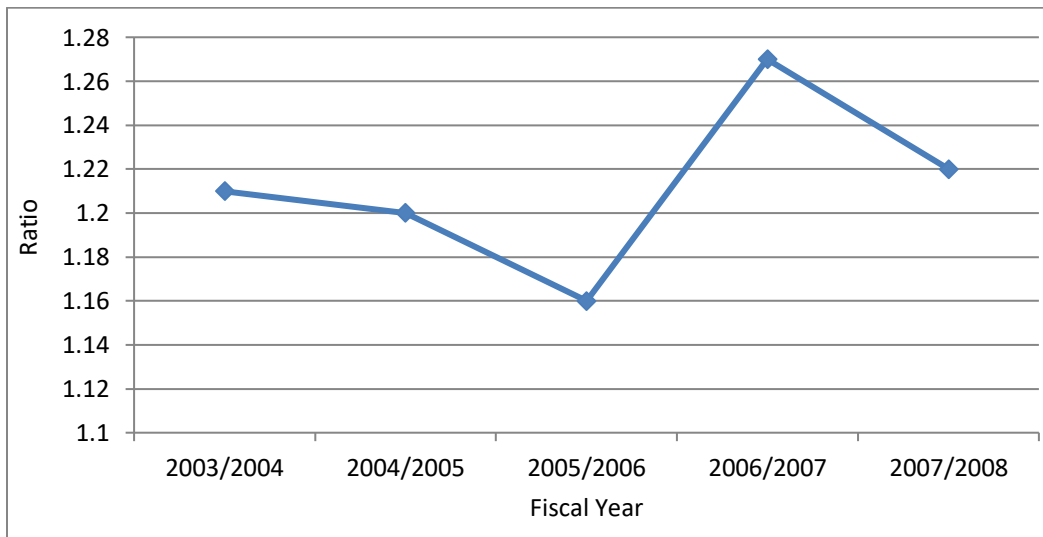
Table 4.14

Interest Income to Total Income Ratio of NIBL

(Rs. in millions)

Fiscal Year	Interest Income	Total Income	Ratio
2003/2004	405	587	0.68
2004/2005	532	791	0.67
2005/2006	681	970	0.70
2006/2007	899	1314	0.68
2007/2008	1202	1758	0.68
Average			0.68

(Source: Annual Reports of NIBL)

Figure 4.14

Interest Income to Total Income Ratio of NIBL
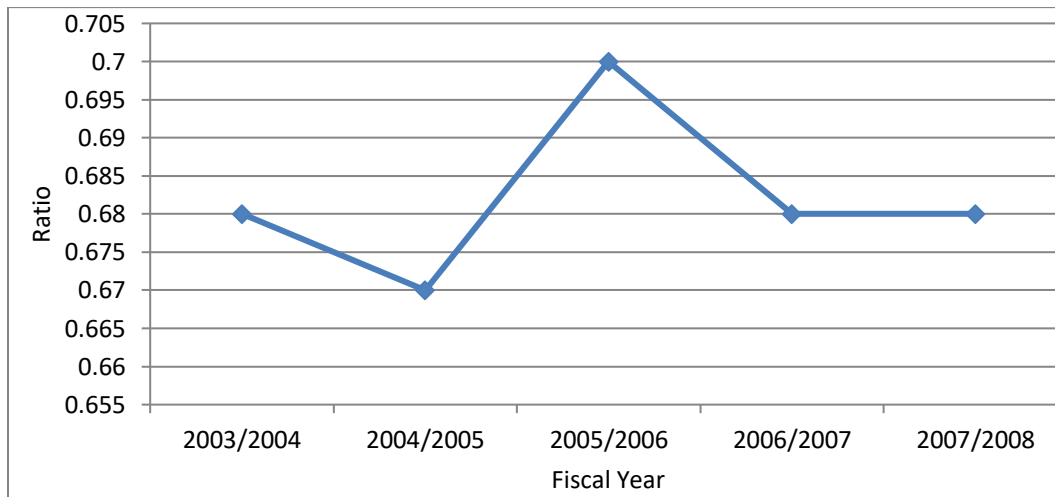
The above table shows that HBL has highest average mean ratio in interest income to total income ratio and NIBL has the lowest mean ratio. The overall trend of the ratio is fluctuating. The highest ratio recorded is 1.27 in the F/Y 2006/2007 by HBL and the highest ratio recorded is 0.70 in 2005/2006 by NIBL. 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 of 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)

Fiscal Year	Interest Suspense	Interest Income	Ratio
2003/2004	417	1245	0.33
2004/2005	426	1446	0.29
2005/2006	487	1626	0.30
2006/2007	336	1775	0.19
2007/2008	347	1963	0.18
Average			0.26

(Source: Annual Reports of HBL)

Figure 4.15

Interest Suspense to Interest Income Ratio of HBL

64
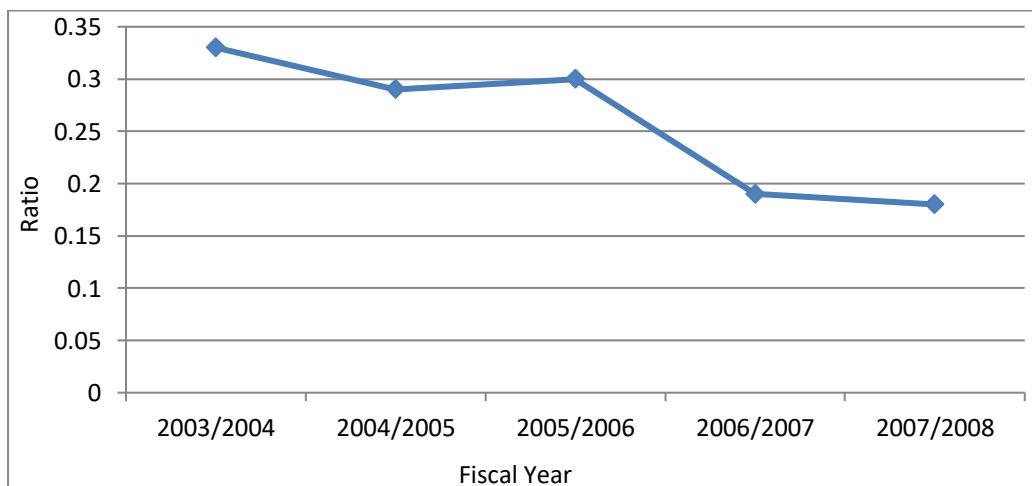
Table 4.16

Interest Suspense to Interest Income Ratio of NIBL

(Rs. in millions)

Fiscal year	Interest Suspense	Interest Income	Ratio
2003/2004	30	405	0.074
2004/2005	38	532	0.071
2005/2006	77	681	0.113
2006/2007	90	899	0.100
2007/2008	106	1202	0.088
Average			0.089

(Source: Annual Reports of NIBL)

Figure 4.16

Interest Suspense to Interest Income Ratio of NIBL
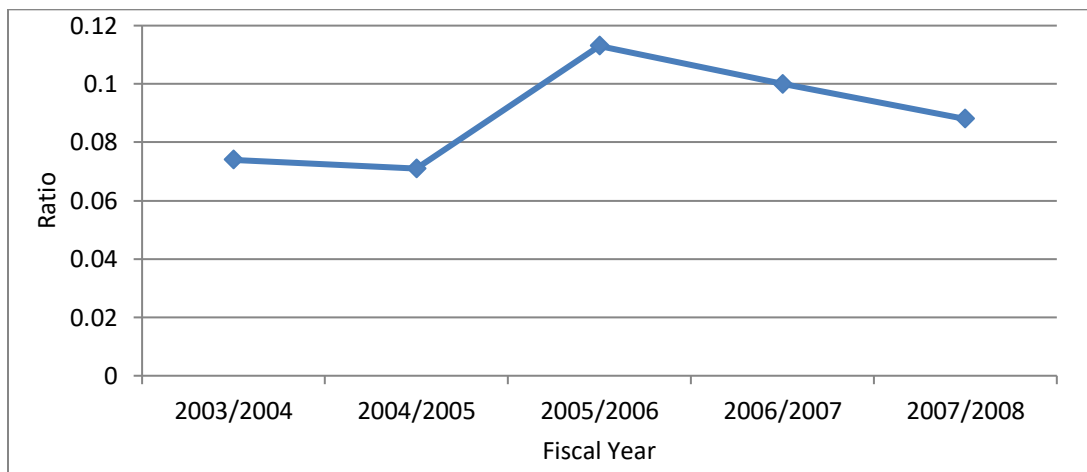
The above table shows the ratio of interest suspense to the interest income from loans and advances. The average mean ratio of HBL is 0.26 and NIBL is 0.089. The highest ratio of HBL is 0.33 in the F/Y 2003/2004 and the highest ratio of NIBL is 0.113 in the F/Y 2005/2006. The high degree of this ratio 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 bank's 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 outside's fund or all kind of deposits. A high ratio indicates higher efficiency to utilize depositors fund and low ratio indicates bank's inability to e efficiency utilize the depositor's fund.

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

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

Table 4.17

Loan and Advance to Total Deposit Ratio of HBL

(Rs. in millions)

Fiscal Year	Loans & Advance	Total Deposit	Ratio in %
2003/2004	12919	22010	58.69
2004/2005	13451	24814	54.21
2005/2006	15761	26490	59.49
2006/2007	17793	30048	59.21
2007/2008	20179	31842	63.37
Average			58.99

(Source: Annual Reports of HBL)

Figure 4.17

Loan and Advance to Total Deposit Ratio of HBL
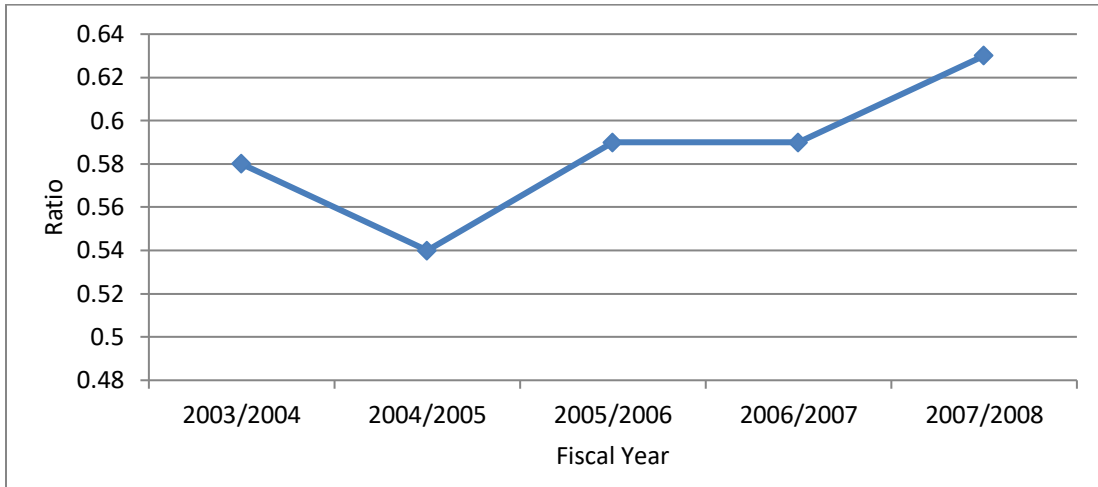
Table 4.18

Loan and Advance to Total Deposit Ratio of NIBL

Fiscal Year	Loans &Advance	Total Deposit	Ratio in %
2003/2004	7124	11525	61
2004/2005	10453	14255	73
2005/2006	13178	18927	69
2006/2007	17769	24489	72
2007/2008	27529	34451	79
Average			70

(*Source: Annual Reports of NIBL)*

Figure 4.18

Loan and Advance to Total Deposit Ratio of NIBL
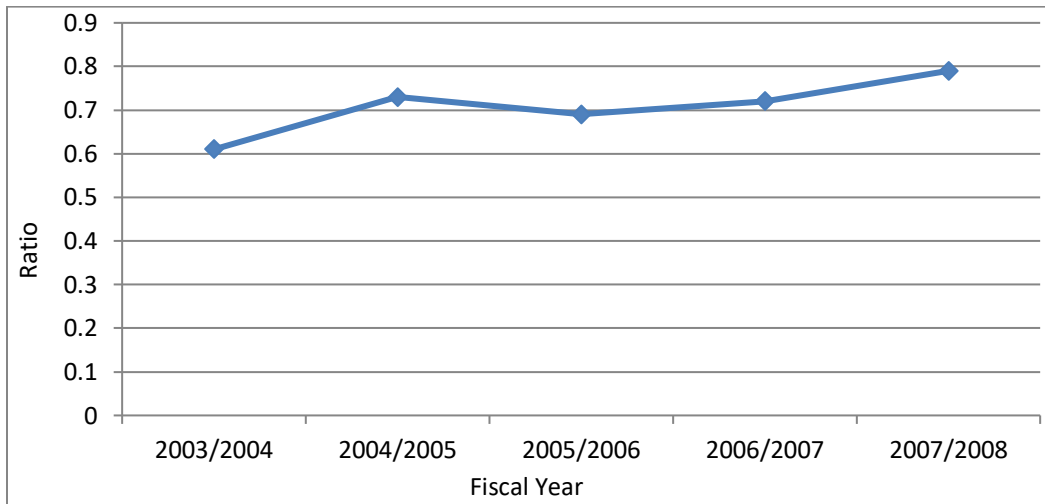
From the above table, it is seen that HBL has highest in F/Y 2007/2008 i.e. 63.37% and lowest in F/Y 2004/2005 i.e. 54.21% with an average ratio of 58.99%. Similarly, it is seen that NIBL has highest in F/Y 2007/2008 i.e. 79% and lowest in F/Y 2003/2004 i.e. 61% with an average ratio of 70%. It can also be seen that the total deposit and loans and advances has been increasing in higher rate in both banks. 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)

Fiscal Year	Interest Income	Interest Expenses	Ratio
2003/2004	1245	491	2.53
2004/2005	1446	561	2.57
2005/2006	1626	648	2.50
2006/2007	1775	767	2.31
2007/2008	1963	823	2.38
Average			2.45

(Source: Annual Reports of HBL

Figure 4.19

Interest Income to Interest Expenses Ratio of HBL
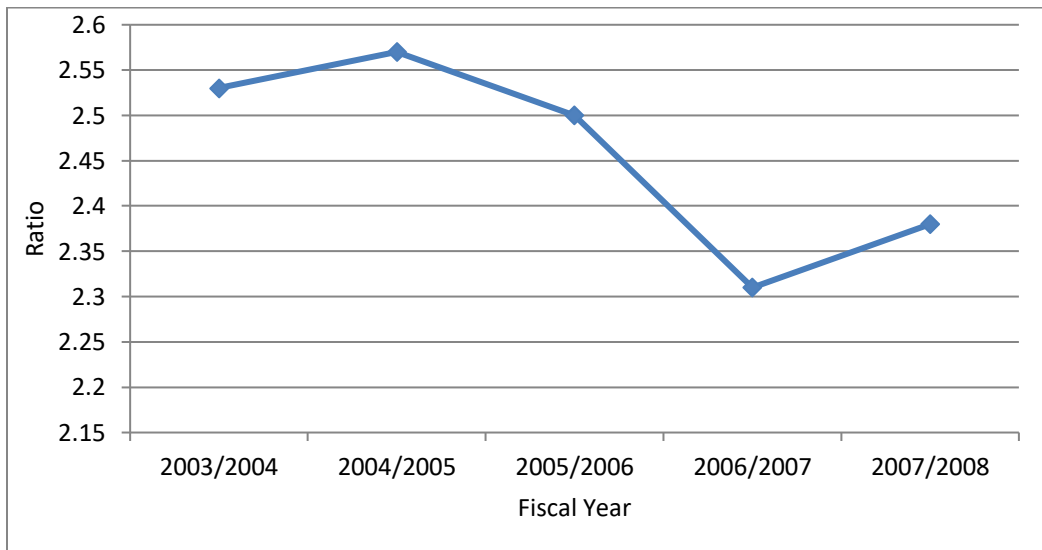
Table 4.20

Interest Income to Interest Expenses Ratio of NIBL

(Rs. in millions)

Fiscal Year	Interest Income	Interest Expenses	Ratio
2003/2004	405	326	1.24
2004/2005	532	354	1.50
2005/2006	681	490	1.38
2006/2007	899	685	1.31
2007/2008	1202	992	1.21
Average			1.32

(Source: Annual Reports of NIBL)

Figure 4.20

Interest Income to Interest Expenses Ratio of NIBL
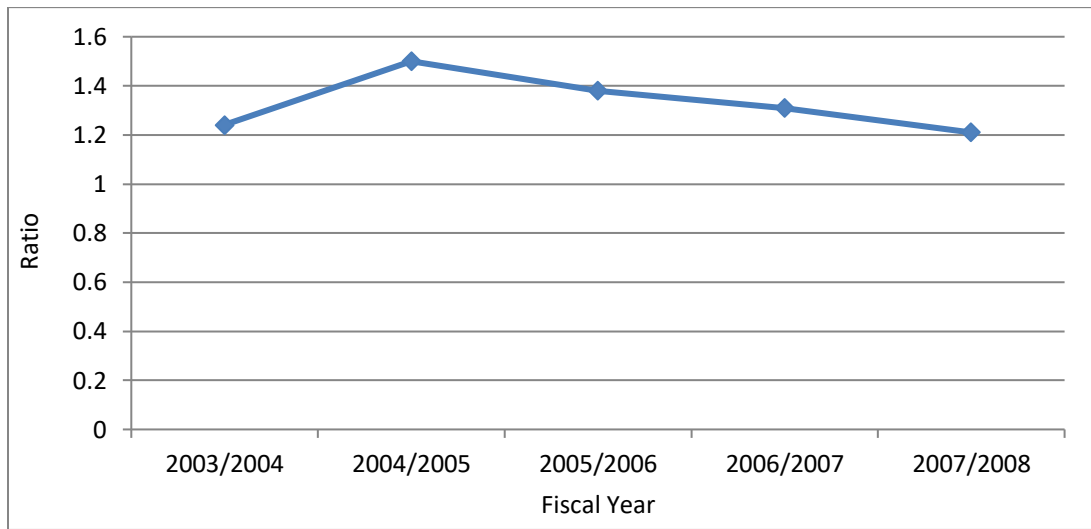
The above table shows that the ratios of interest income to interest expenses ratio. The average ratio of HBL is 2.45 which mean that a rupee of expenses in deposits generates 2.45 of interest income in an average. HBL has the highest mean ratio i.e. 2.57 in the F/Y 2004/2005, which mean that one rupee of interest expenses has been able to earn 2.57. NIBL has the highest mean ratio i.e. 1.50 in the F/Y 2004/2005. HBL is charging high interest rate in average than NIBL i.e. 2.45>1.32.

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)

Fiscal Year	Net Profit	Shareholder's Equity	Ratio in %
2003/2004	263	2291	11.47
2004/2005	308	2568	11.99
2005/2006	457	2885	15.84
2006/2007	491	2942	16.68
2007/2008	635	3195	19.87
Average			15.17

(Source: Annual Reports of HBL)

Figure 4.21

Return on Equity of HBL
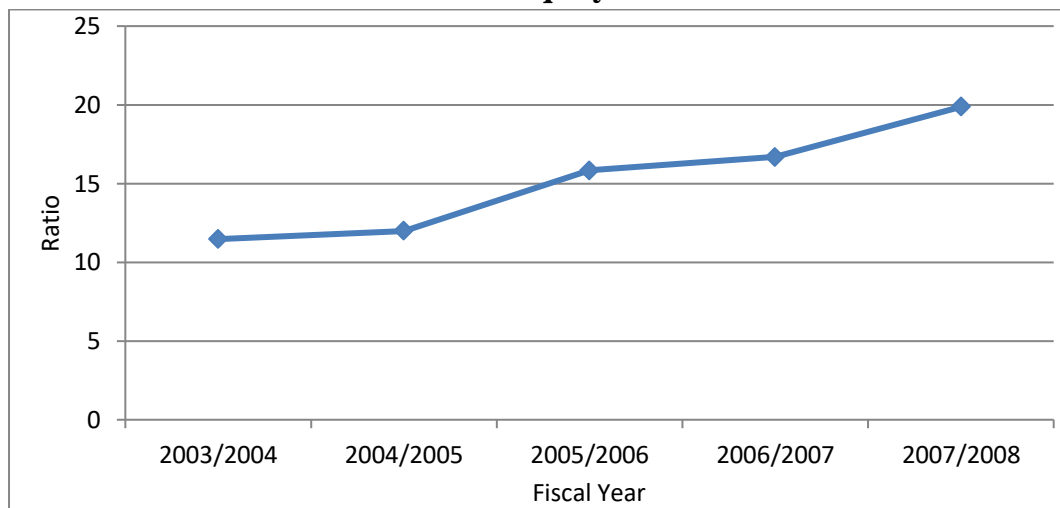
Table 4.22

Return on Equity of NIBL

(Rs. in millions)

Fiscal Year	Net Profit	Shareholder's Equity	Ratio in %
2003/2004	152	729	20.85
2004/2005	232	1180	19.66
2005/2006	350	1415	24.73
2006/2007	501	1878	26.67
2007/2008	696	2686	25.91
Average			23.56

(Source: Annual Reports of NIBL)

Figure 4.22

Return on Equity of NIBL
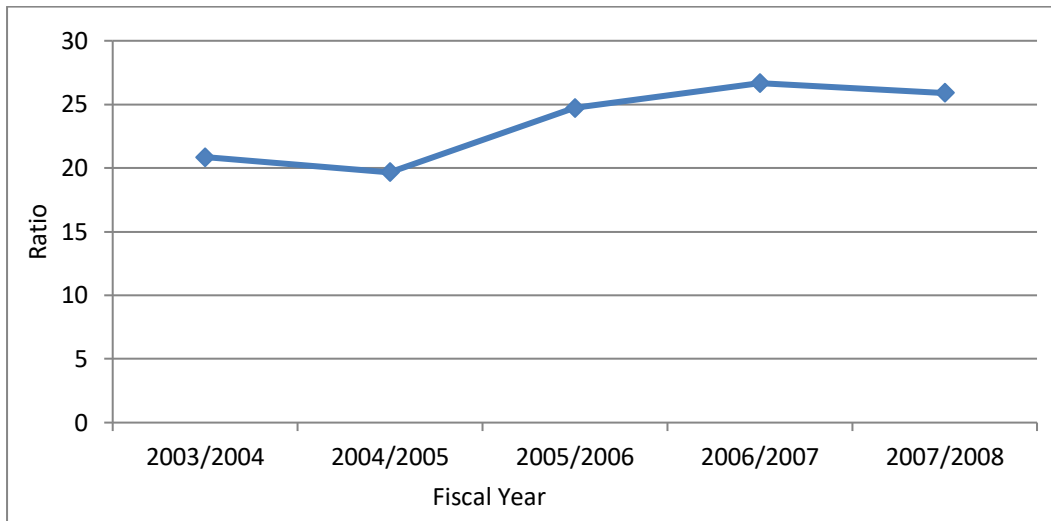
The above table of HBL shows that the ratios are in increasing trend. The highest ratio of HBL is 19.87% in the F/Y 2007/2008 and highest ratio of NIBL is 26.67% in the F/Y 2006/2007. The average ratio of NIBL is higher than HBL i.e. 23.56%>15.17%. Net profit and Shareholder's equity of HBL is in increasing trend whereas NIBL is in fluctuating position.

4.3.2 Earning Per Share (EPS)

Earnings per share measures profitability of the common shareholders investment. The firm's 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 dividend 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)

Fiscal Year	Net Profit	Total no. of Shares	EPS
2003/2004	263052	5362	49.05
2004/2005	308277	6435	47.91
2005/2006	457458	7722	59.24
2006/2007	491824	8108	60.65
2007/2008	635869	10135	62.73
Average			55.91

(Source: Annual Reports of HBL)

Figure 4.23

Earning Per Share of HBL
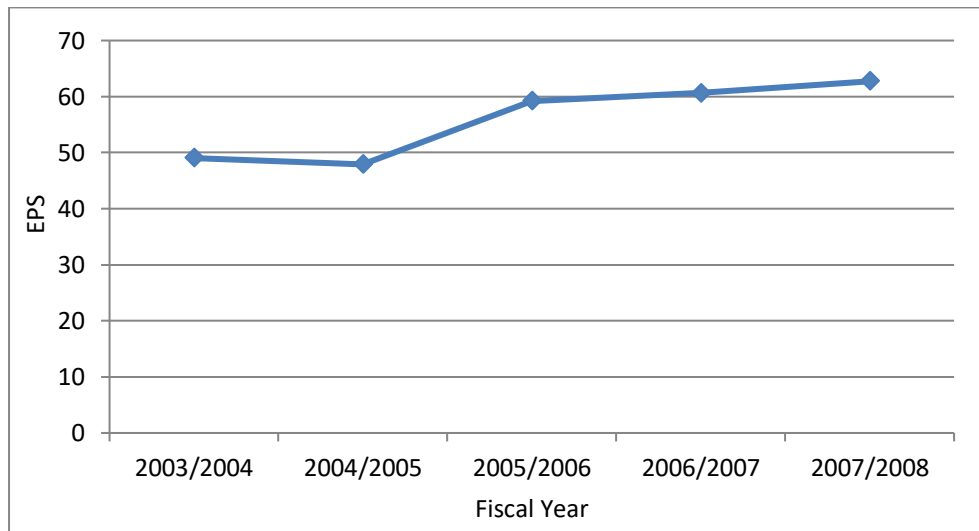
Table 4.24

Earning Per Share of NIBL

(Rs. in millions)

Fiscal Year	Net Profit	Total no. of Share	EPS
2003/2004	152671	2952	51.71
2004/2005	232147	5877	39.50
2005/2006	350536	5905	59.36
2006/2007	501399	8013	62.57
2007/2008	696732	12039	57.87
Average			54.20

(Source: Annual Reports of NIBL)

Figure 4.24

Earning Per Share of NIBL
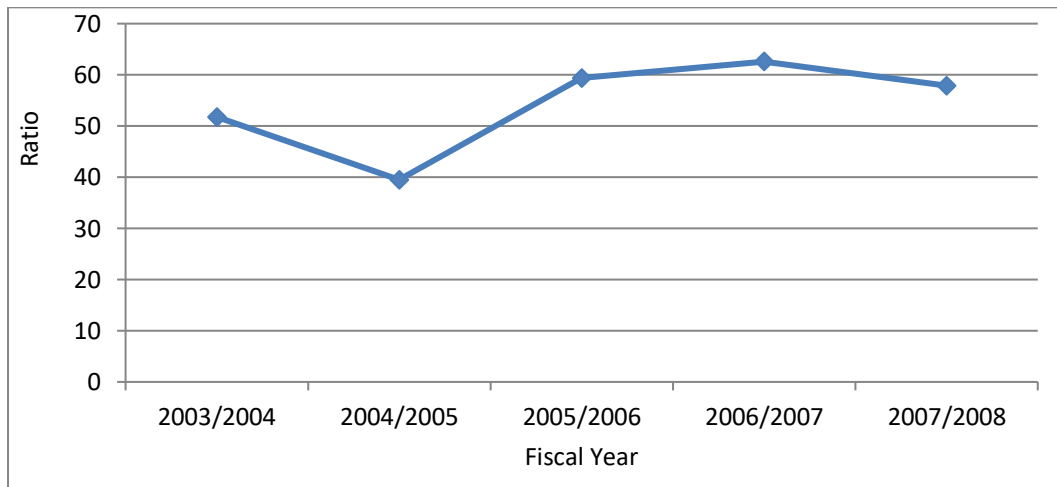
The above table shows that EPS of HBL varies from maximum of Rs. 62.73 to minimum of Rs. 47.91. Similarly, EPS of NIBL varies from maximum of Rs. 62.57 to minimum of Rs. 39.50. The regular increase of EPS is because of the tremendous increase in net profit in the past years. Net Profit of HBL is in increasing trend whereas NIBL is in fluctuating trend. The average mean of HBL is Rs. 55.91 and the average mean of NIBL is Rs. 54.20. Net profit and total numbers of shares of both banks i.e. HBL and NIBL 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 liner 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:

$$r = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}}\sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

Where,

N = No. of observation of X and Y

ΣX = Sum of the observations in series X

ΣY = Sum of the observations in series Y

ΣX^2 = Sum of the observations in series X

ΣY^2 = Sum of the observations in series Y

ΣXY = 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

Banks	r	r^2	P.E	6P.E
HBL	0.97	0.9409	0.017	0.102
NIBL	0.99	0.9801	0.0026	0.0156

(Source: Appendix-1 & 2)

The above table shows the co-efficient of correlation between loan and advances and deposit of HBL and NIBL. In case of HBL, the co-efficient of correlation between loan and advances and deposits is 0.97 which indicates positive correlation between these two variables.

Similarly, the value of coefficient of determination r^2 is 0.9409 which means 94.09%. NIBL 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 0.0026 of NIBL. The value of 'r' is higher than the six time of its P.E. which shows the value of coefficient of

correlation is significant. There is significant relationship between deposit and loans 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

Banks	r	r^2	P.E	6P.E
HBL	-0.78	0.614	0.116	0.697
NIBL	0.91	0..843	0.047	0.283

(Source: Appendix-3 & 4)

The above table shows the coefficient of correlation between loan loss provision and loan and advances of HBL and NIBL. HBL has negative relation with -0.78 as the value of 'r'. It shows that the value of 'r' is not significant. The value of r^2 is 0.614, P.E. is 0.116 and 6P.E. is 0.697. The value of r is less than the value of 6P.E, which shows that the value of 'r' is insignificant. NIBL has positive correlation between loan loss provision and loan and advances. The value of 'r' is 0.91 for NIBL and the coefficient of determination 'r^2' is 0.843 i.e. 84.30% for NIBL. The value of 'r' is more than the value of 6P.E i.e. 0.91>0.283 which shows that the value of 'r' is significant for NIBL.

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

Banks	r	r^2	P.E	6P.E
HBL	0.95	0.91	0.027	0.162
NIBL	0.89	0.80	0.059	0.354

(Source: Appendix-5 & 6)

The above table shows the coefficient of correlation between investment and loan and advances of HBL and NIBL. In case of HBL, the coefficient of correlation between investment and loan and advances is 0.95 which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination r^2 is 0.91 which means 91%. NIBL has low degree of positive correlation of 0.89 than HBL i.e. 0.95. Likewise the value of P.E. is 0.027 of HBL and 0.059 of NIBL. The value of 'r' is six time more than the value of 6P.E. i.e. 0.95>0.162 in case of HBL and the value of 6P.E. i.e. 0.89>0.354 in case of NIBL which shows the value of coefficient of correlation is significant. There is significant relationship between investment and loan and advances and the bank is mobilizing its investment as loans and advances successfully in case of both banks.

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

Banks	r	r^2	P.E	6P.E
HBL	0.94	0.8977	0.03	0.184
NIBL	0.99	0.98	0.003	0.019

(Source: Appendix-7 & 8)

The above table shows that the coefficient and correlation between total income and loan and advances of HBL and NIBL. It shows positive relationship between these two variables of HBL and NIBL. In case of HBL, the coefficient of correlation between total income and loans and advances is 0.94 which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination r^2 is 0.8977 which means 89.77%. Further the value of P.E. is 0.03 and 6P.E. is 0.184 which shows that the coefficient of correlation 'r' is higher than the value of 6P.E. i.e. (0.94> 0.184). Therefore, the value of 'r' is significant. Similarly in case of NIBL, the coefficient of correlation between total income and loan and advances is 0.99 which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination r^2 is 0.98 which means 98%. Further the value of P.E. is 0.003 and 6P.E. is 0.019 which shows the coefficient of correlation 'r' is higher than the value of 6P.E. i.e. (0.99>0.019). Therefore, the value of 'r' is significant.

4.4.5 Coefficient 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

80

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

Banks	r	r^2	P.E	6P.E
HBL	- 0.55	0.3059	0.209	1.255
NIBL	0.94	0.9009	0.029	0.178

(Source: Appendix-9 & 10)

The above table shows that the coefficient and correlation between interest suspense and interest income of HBL and NIBL. In case of HBL, the value of 'r' is not significant. It has negative relation with –0.55. Similarly, the value of coefficient of determination r2 is 0.3059 i.e. 30.59%. Further the value of P.E. is 0.209 and 6P.E. is 1.255. The value of 'r' is less than the value of 6P.E. which shows that the value of 'r' is insignificant. In case of NIBL, the coefficient of correlation between interest suspense and interest income is 0.94 which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination r2 is 0.9009 i.e. 90.09%. Further the value of P.E. is 0.029 and 6P.E. is

0.178, which shows coefficient of correlation 'r' is higher than the value of 6P.E. i.e. (0.94>0.178). 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

Banks	r	r^2	P.E	6P.E
HBL	0.95	0.903	0.029	0.174
NIBL	0.99	0.992	0.002	0.013

(Source: Appendix-11 &12)

The above table shows that there is high degree of positive correlation between shareholders equity and loans and advances in HBL and NIBL banks. It shows good fund mobilization. The value of 'r' is significant for both HBL and NIBL. In case of HBL, the coefficient of correlation between shareholder's equity and loan and advances is 0.95 which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination r2 is 0.903 which means 90.30%. Further the value of P.E. is 0.029 and 6P.E. is 0.174 which shows that the coefficient of correlation 'r' is higher than the value of 6P.E. i.e. (0.95>0.174). Therefore, the value of 'r' is significant. In case of NIBL, the coefficient of correlation between shareholder's equity and loan and advances is 0.99 which indicates positive correlation between these two variables. Similarly, the value of coefficient of determination r2 is 0.992 which means 99.20%. Further the value of P.E. is 0.002 and 6P.E. is 0.013 which shows that the coefficient of correlation 'r' is higher than the value of 6P.E. i.e. (0.99>0.013). 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 Deposits collected so as to mobilize in Loans and Advances. This is how the fund circulation of commercial banks makes profits.

Table 4.31

Regression Equation of Loans and Advances on Deposit of HBL

FY	Deposit (X)	Loan & Advances(Y)	X^2	XY
2003/2004	22010	12919	484440100	284347190
2004/2005	24814	13451	615734596	333773114
2005/2006	26490	15761	701720100	417508890
2006/2007	30048	17793	902882304	534644064
2007/2008	31842	20179	1013912964	642539718
Total	ΣX=135204	ΣY=80103	ΣX²=3718690064	ΣXY=2212812976

(Source: Appendix-13)

The above table shows the figure of Deposit & Loans & Advances of HBL from the year 2003 to 2008. The regression equation obtained from the calculation is 'y= 4151.83+0.746x'.

The slope of this line is 0.746. 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 NIBL

FY	Deposit (X)	Loans & Advances (Y)	X^2	XY
2003/2004	11525	7124	132825625	82104100
2004/2005	14255	10453	203205025	149007515
2005/2006	18927	13178	358231329	249420006
2006/2007	24489	17769	599711121	435145041
2007/2008	34451	27529	1186871401	948401579
Total	$\Sigma X=$ 103647	$\Sigma Y=76053$	$\Sigma X^2=2480844501$	$\Sigma XY=1864078241$

(Source: Appendix -14)

The above table shows the figure of Deposit and Loans and Advances of NIBL from the year 2003 to 2008. The regression equation obtained from the calculation is 'y= -2726 +0.8653x'.

The slope of this line is 0.8653. 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^2	XY
2003/2004	12919	967	166900561	12492673
2004/2005	13451	1026	180929401	13800726
2005/2006	15761	1119	248409121	17636559
2006/2007	17793	795	316590849	14145435
2007/2008	20179	682	407192041	13762078
Total	$\Sigma X=80103$	$\Sigma Y=4589$	$\Sigma X^2=1320021973$	$\Sigma XY=71837471$

(Source: Appendix-15)

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=1649.8 – 0.0457x. The slope of this line is 0.0457.

Table 4.34

Regression Equation of Loan Loss Provision on Loans and Advances of NIBL

FY	Loan & Advances (X)	Loan Loss Provision (Y)	X^2	XY
2003/2004	7124	206	50751376	1467544
2004/2005	10453	327	109265209	3418131
2005/2006	13178	401	173659684	5284378
2006/2007	17769	482	315737361	8564658
2007/2008	27529	532	757845841	14645428
Total	$\Sigma X=76053$	$\Sigma Y=1948$	$\Sigma X^2=1407259471$	$\Sigma XY=33380139$

(Source: Appendix-16)

The above table shows the figure of Loan Loss Provision and Loans and Advance of NIBL from the year 2003 to 2008. The regression equation obtained from the calculation is:

Y= -1.4 + 0.0159x. The slope of the line is 0.0159.

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 NIBL is higher than HBL i.e. (63.17%>50.99%). It means NIBL has good lending performance.

- HBL has highest Loans and Advances and Investment to Total Deposits concerning that it has the maximum mobilization of deposits than NIBL. It seems that HBL is making high extend of investment than NIBL. This ratio shows achievement of commercial banks to convert their liabilities into assets.

- Loans and Advances to Shareholder's Equity ratio have gained significant importance in measuring the capital fund. In case of NIBL, the average mean ratio of Loans and Advances to Shareholders Equity is 9.53% and HBL is 5.74%. NIBL 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 satisfactory since according to the NRB directives 1% provision is to be provided for all good loans. 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 NIBL is higher than HBL i.e. (70%>58.99%). Loan and Advances and total deposit of both banks are increasing trend.

- The concerned banks are able to reduce its non- performing ratio. HBL has reduced its non- performing loan by large percentage during this last five years period.

- Interest income and total income ratio of both banks 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 0.26 whereas NIBL has the maximum of 0.089. If not alerted immediately, can bring hazard situation to the banks in future.

- EPS shows the financial position of an organization. HBL has an EPS of Rs.55.91 and NIBL has an EPS of Rs.54.20. Net profit of HBL is in increasing trend whereas NIBL is in fluctuating trend.

- The correlation analysis has shown high degree of correlation between deposits and loan and advances of HBL and NIBL. There is significant relationship between deposit and loans and advances and the bank is mobilizing its deposited as loan and advances successfully. This shows the availability of good lending opportunities.

- The coefficient of correlation shows the correlation between loan loss provision and loans and advances of HBL and NIBL.NIBL has high degree of positive correlation which indicates good performance. HBL has 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 case of both banks.

- There is significant relationship between total income and loan and advances of HBL and NIBL. It shows positive relationship between these two variables.

- The coefficient of correlation between interest suspense and interest income shows the positive relationship between two variables of NIBL whereas HBL has negative relationship between these variables. The coefficient of correlation 'r' is higher than the value of 6P.E. in case of NIBL whereas 'r' is less than 6P.E. in case of HBL

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

CHAPTER – V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

The entire research work is concentrated on loan management of two joint venture banks i.e. Himalayan Bank Ltd. and Nepal Investment Bank Ltd. These two joint venture banks are compared as per their loan management activities by taking five years data from the year 2003 to 2008. The analysis of the data is carried out with the help of various financial and statistical tools. This chapter is divided into summary, conclusion and recommendations.

5.1 Summary

Banking sector plays a pivotal role in the overall development of an economy. The economic reforms initiated by the Government have changed the landscape of several sectors of the Nepalese economy. This sector is going through major changes as a consequence of economic reforms. The changes affect the ownership pattern of banks, regulatory aspects, availability of funds, the cost of funds as well as opportunities to earn, range of services (fee-based and fund based),and management of priority sector lending. As a consequence of liberalization in interest rates and cutthroat competition, banks are operating on reduced spread.

Banking plays an indispensable role in the process of development. Commercial banks are one of the vital aspects of this sector, which deals in the process of channelizing the available resources in various ways. It is the intermediary between the deficit and surplus of financial resources. All the economic activities are directly or indirectly channeled through banks. People keep their surplus money as deposits in the bands and hence banks can provide such funds to finance the industrial activities in the form of loans and advances.

Financial institutions play a major role in the proper functioning of an economy. These institutions act as an intermediary between the individuals who lend and borrow. These institutions accept deposits and in turn lend it to people who are in need of financial resources. These institutions make the flow of investment easier. Bank came into existence mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing an overall economic development. The bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society they are serving.

Loan is the core area of the commercial banking. It plays the significant impact on the commercial bank's liquidity and profitability. But the most difficult factor in banking sector is the total management of loan. There is the wide spread suspicion on the performance of commercial banks, due to excessive amount of non-performing assets in commercial banks.

Loan managing is one of the most important function of commercial bank and the composition of loan and advances directly affect the performance and profitability of the bank. Competitive advantage can be achieved through harnessing the potential available in the employees by creating a positive work culture and enlisting the support of all the employees to the organizational goals and providing the customer an optimum blend of technology and traditional service. Every bank is facing the problem of default loan and there is always possibility of a certain portion of the loan advances turning into non-performing loan. A study of loan and advances, profitability, deposit position of the commercial banks are analyzed and the bank's loan managing strength, loan managing 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, co- efficient of correlation, and regression analysis is calculated. The data used in this study is primary as well as secondary data and extracted from the annual reports of the concerned banks.

5.2 Conclusion

The ratio of loans and advances to total assets i.e. (63.17%>50.99%) of NIBL is higher than HBL. That means NIBL has good lending performance. Loans and advances and investments to total deposits i.e. (1.01>0.98) of HBL is higher than NIBL. The lower ratio of NIBL needs diverting its lending function for more fee-based activities. There is maximum utilization of collected funds. The measurement of granting loan in relative terms has revealed that HBL has the highest investment to loans and advances 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 0.42 and the average mean of NIBL is 0.27. The loans and advances to shareholder's equity ratio of NIBL is higher than HBL i.e. (9.53%>5.74%). That means NIBL 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 NIBL i.e. (5%>1.8%). HBL has the highest loan loss provision of 7.6% in the year 2004/2005; it means it had collected the highest amount in provision for loan loss in comparison to NIBL. HBL has highest average mean ratio in interest income to total income ratio i.e. 1.21 and NIBL has the lowest average mean ratio of 0.68. In the context of interest suspense to the interest income from loans and advances, the average mean ratio of HBL is higher than NIBL i.e. (0.26>0.089).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 NIBL is higher than HBL i.e.(70%>58.99%). That means NIBL 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 NIBL i.e.

(2.45>1.32). HBL is charging high interest rate than NIBL. In the context of ROE, it is found that net profit and shareholder's equity of both concerned bank i.e. HBL and NIBL are in increasing trend. The average mean ratio of NIBL is higher than HBL i.e. (23.56%>15.17%). In case of EPS, the average mean ratio of HBL is higher than NIBL i.e. (Rs. 55.91>Rs. 54.20). 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. NIBL 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, the coefficient of correlation between loan loss provision and loan and advances of 'r' is -0.78 which is not significant. The value of P.E. is 0.116 and 6P.E. is 0.697. The value of 'r' is less than the value of 6P.E, which shows that the value of 'r' is insignificant. NIBL 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. 0.91>0.283 which shows that the value of 'r' is significant for NIBL. The coefficient of correlation between investment and loan and advances of HBL and NIBL shows the positive correlation between these two variables. HBL has high degree of positive correlation of 0.95 than NIBL i.e. 0.89. In case of HBL, the value of 'r' is six time more than the value of 6P.E. i.e. 0.95>0.162 and in case of NIBL, the value of 'r' is 0.89>0.354 which shows the value of coefficient of correlation is significant. In case of both HBL and NIBL, the coefficient of correlation between total income and loan and advances is 0.94 and 0.99 respectively which indicates positive correlation between these two variables. Further, HBL and NIBL both

have the value of 'r' more than the value of 6P.E, which shows that the value of 'r' is significant. In case of HBL, the coefficient of correlation between interest suspense and interest income is -0.55 which is not significant. The value of P.E. is 0.209 and the value of 6P.E. is 1.255. The value of 'r' is less than the value of 6P.E, which shows that the value of 'r' is insignificant. In case of NIBL, the coefficient of correlation between interest suspense and interest income is 0.94 which is significant. The value of P.E. is 0.029 and the value of 6P.E. is 0.178, which shows that the value of r is significant. There is high degree of positive correlation between shareholder's equity and loans and advances in HBL and NIBL. It shows good fund mobilization. The value of 'r' is significant in case of both HBL and NIBL.

5.3 Recommendations

On the basis of major findings and the conclusion drawn, the following suggestions have been recommended to the concerned banks for the enhancement of loan management.

- **Liberal Lending Policy and Sound Credit Collection Policy**

In order to achieve success in competitive banking market, commercial bank must utilize their deposit as loan and advances. Loan and advances is the main source of income of banks. One of the main reasons of bank collapse may be negligence in managing these asset that may cause liquidity crisis in bank.

Disbursement of loan has been most challenging job of commercial banks these days, so as increasing non-performing assets may disclose the failure of commercial banks in recovery of loan. Therefore, it is recommended to concerned banks HBL and NIBL to follow liberal lending policy with sufficient guarantee and implement a sound collection policy including procedures such as rapid

identification of bad debtor loans, immediate contact with borrower as well as legal procedure if require.

- **Introduce Innovative Approach to Banking Market**

In this competitive environment, the banking sector should be customer oriented. without effective marketing strategy, none of the banking business can survive in today's competitive environment. Thus, effective marketing attract and retain the customers. Various marketing techniques like advertisement through website, audio- visual, documentary through E. banking etc should be introduced.

- **Extend Branches all over the Country**

All the banks are concentrated in the urban areas. Thus, if commercial banks are extended all over the country then it collects idle money from every parts of the country that can be utilized for the income generation purpose. Thus, banks should expand new branches in rural areas as such these areas could be benefited with banking services so as to accelerate the economic development of the country.

- **Lending Need to be Diversified**

Banks should diversify its lending activities so as to minimize risk. Bank should also promote small borrowers. It should diversify its activities to group as well by identifying new avenues rather focusing only one sector.

- **Provide Proper Guidelines to Loan Officers**

Top management such as Credit Quality Control (CQC) department should provide design guideline to the loan officers. These guidelines contain tips on how to perform duties with utmost efficiency and credibility and handle problematic situations effectively. These guidelines should be timely reviewed and modified as per situation.

- **Reduce Interest Rate on Loan**

The interest rate can be minimized with proper management of the operating expenses and spread rate (i.e. difference between rate of deposit and lending). But it doesn't mean that the bank should lower interest rate by bearing loss. The rate should be minimized with scientific management of the fund and operating expenses.

- **Preference should be given to Consumer Satisfaction**

Consumers always help banks in achieving its organizational goal. Thus, primary preference should be given to consumers by providing them quick and easy service.

- **Strictly follow-up Nepal Rastra Bank Rules and Regulation**

As Nepal Rastra Bank has formulated various rules and regulation, all banks must follow these rules and regulation and central bank must examine timely whether banks follow these rules or not.

BIBLIOGRAPHY

Books

Bhattacharya, H. (1998). *Banking Strategy, Credit Appraisal and Lending Decisions - A Risk - Return Framework (1st Edition).* New Delhi: Oxford University Press.

Dahal, B. & Dahal, S. (2002). *A Handbook of Banking*. Kathmandu: Asmita Books & Stationery.

Gupta, S.P. (1981). *Easy Approach to Practical Statistics. (3rd Edition).* New Delhi: S. Chand & Company LTD.

Johnson and Johnson (2003*). Commercial Bank Management.* New York: The Dryden Press.

Joshi, P.R. (2001). *Research Methodolugy. (1st Edition).* Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd.

K.C., S. & Shekhar, L. (1999). *Banking Theory and Practices. (18th Revised Edition).* New Delhi: Vikash Publishing House Pvt. Ltd.

Kothari, C.R. (1994). *Quantitative Techniques. (3rd Revised Edition).* New Delhi: Vikash Publishing House Pvt. Ltd.

Pandey, I.M. (2000). *Financial Management. (8th Edition).* New Delhi: Vikash Publishing House Pvt. Ltd.

Roy, A.F. (1979). *Financial Statement Analysis*. New Delhi: Tata McGraw Hill Publishing Co. Ltd.

Shrestha, S. & Silwal, D.P. (2057). *Statistical Methods in Management. (2nd Edition)*. Kathmandu: Taleju Prakashan.

Vaidya, S. (2056). *Financial Markets and Institutions. (1st Edition).* Kathmandu: Taleju Prakashan.

Weston, J.F. & Copeland, T.E. (1990). *Managerial Finance. (9th Edition).* New York: The Dryden Press.

Journals and Articles

Himalayan Bank Ltd. (2003/04 to 2007/08). *Annual Reports*. Kathmandu.

Nepal Investment Bank Ltd. (2003/04 to 2007/08). *Annual Reports*. Kathmandu.

Shrestha, B. (2058B.S.). *Laws of Finance Company and Ambiguity.* The Kathmandu Post. A Daily Newspaper, 9th Shrawan, 2058 B.S., Kathmandu.

Shrestha, M.K. (1990). *Commercial Banks, Comparative Performance Evaluation.* Kathmandu: Karmachari Sanchaya Kosh Publication.

Thesis

Bhattarai, S. (2006). *Implementation of Directives Issued by Nepal Rastra Bank: A Comparative Study of Nepal SBI Bank Ltd. and Nepal Bangladesh Ltd.* Kathmandu: An Unpublished Master Degree Thesis submitted to Faculty of Management, T.U.

Ojha, L.P. (2001). *Lending Practices on Nabil Bank Ltd., Standard Chartered Bank Ltd. and Himalayan Bank Ltd.* Kathmandu: An Unpublished Master Degree Thesis submitted to Faculty of Management, T.U.

Shilpakar, A. (2004). *A Study on Lending Practices of Finance Companies of Nepal.* Kathmandu: An Unpublished Master Degree Thesis submitted to Faculty of Management, T.U.

Websites:

www.hbl.com.np

www.nibl.com.np

www.nrb.org.com.np

APPENDICES

Appendix: 1

Calculation of Correlation Coefficient between Loans & Advances and

Total Deposit of HBL

FY	Loan & Advances (X)	X^2	Total Deposit (Y)	Y^2	XY
2003/2004	12919	166900561	22010	484440100	284347190
2004/2005	13451	180929401	24814	615734596	333773114
2005/2006	15761	248409121	26490	701720100	417508890
2006/2007	17793	316590849	30048	902882304	534644064
2007/2008	20179	407192041	31842	1013912964	642539718
Average	ΣX=80103	ΣX2=1320021973	ΣY=135204	ΣY2=3718690064	ΣXY=2212812976

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{2212812976 - \dfrac{80103 \times 135204}{5}}{\sqrt{1320021973 - \dfrac{(80103)^2}{5}} \sqrt{3718690064 - \dfrac{(135204)^2}{5}}}$$

$$= \frac{2212812976 - 2166049202}{6060.02 \times 7916.16}$$

$$= 0.97 \qquad r^2_{xy} = 0.9409$$

$$\text{Error (P.E.)} = 0.6745 \text{x} \ \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 - 0.9409}{\sqrt{5}} = 0.0022$$

$$6\text{P.E.} = 6 \text{ x } 0.0022 = 0.0132$$

Appendix: 2

Calculation of Correlation Coefficient between Loans & Advances and

Total Deposit of NIBL

FY	Loans & Advances (X)	X^2	Total Deposit (Y)	Y^2	XY
2003/2004	7124	50751376	11525	132825625	82104100
2004/2005	10453	109265209	14255	203205025	149007515
2005/2006	13178	173659684	18927	358231329	249420006
2006/2007	17769	315737361	24489	599711121	435145041
2007/2008	27529	757845841	34451	1186871401	948401579
Average	$\Sigma X=76053$	$\Sigma X2=1407259471$	$\Sigma Y=103647$	$\Sigma Y2=2480844501$	$\Sigma XY=1864078241$

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x.\Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}}\sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{1864078241 - \dfrac{76053\times103647}{5}}{\sqrt{1407259471 - \dfrac{(76053)^2}{5}}\sqrt{2480844501 - \dfrac{(103647)^2}{5}}}$$

$$= \frac{1864078241 - 1576533058}{15826.48 \times 18229.21}$$

$$= 0.99 \qquad r^2_{xy} = 0.9801$$

$$\text{Error (P.E.)} = 0.6745 \text{ x } \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 - 0.9801}{\sqrt{5}} = 0.0026$$

$$6\text{P.E.} = 6 \text{ x } 0.0026 = 0.0156$$

Appendix: 3

Calculation of Correlation Coefficient between Loan Loss Provision and

Loans & Advances of HBL

FY	Loans Loss (X)	X²	Loans & Advances (Y)	Y²	XY
2003/2004	967	935089	12919	166900561	12492673
2004/2005	1026	1052676	13451	180929401	13800726
2005/2006	1119	1252161	15761	248409121	17636559
2006/2007	795	632025	17793	316590849	14145435
2007/2008	682	465124	20179	407192041	13762078
Average	ΣX=4589	ΣX2=4337075	ΣY=80103	ΣY2=1320021973	ΣXY=71837471

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{71837471 - \dfrac{4589 \times 80103}{5}}{\sqrt{4337075 - \dfrac{(4589)^2}{5}} \sqrt{1320021973 - \dfrac{(80103)^2}{5}}}$$

$$= \frac{71837471 - 73518533}{353.96 \times 6060.02}$$

$$= \quad -0.7837 \qquad r^2_{xy} = 0.6141$$

$$\text{Error (P.E.)} = \quad 0.6745 \text{ x} \quad \frac{1 - r^2}{\sqrt{n}}$$

$$= \quad 0.6745 \text{ x} \quad \frac{1 - 0.6141}{\sqrt{5}} = 0.1163$$

$$\text{6P.E.} = \quad 6 \text{ x } 0.1163 = 0.6978$$

Appendix: 4

Calculation of Correlation Coefficient between Loan Loss Provision and

Loans & Advances of NIBL

FY	Loans Loss (X)	X^2	Loans & Advances (Y)	Y^2	XY
2003/2004	206	42436	7124	50751376	1467544
2004/2005	327	106929	10453	109265209	3418131
2005/2006	401	160801	13178	173659684	5284378
2006/2007	482	232324	17769	315737361	8564658
2007/2008	532	283024	27529	757845841	14645428
Average	ΣX=1948	ΣX2=825514	ΣY=76053	ΣY2=1407259471	ΣXY=33380139

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{33380139 - \dfrac{1948 \times 76053}{5}}{\sqrt{825514 - \dfrac{(1948)^2}{5}} \sqrt{1407259471 - \dfrac{(76053)^2}{5}}}$$

$$= \frac{33380139 - 29630248}{258.01 \times 15825.53}$$

$$= 0.9183 \qquad r^2_{xy} = 0.8432$$

$$\text{Error (P.E.)} = \quad 0.6745 \text{ x} \quad \frac{1 - r^2}{\sqrt{n}}$$

$$= \quad 0.6745 \text{ x} \quad \frac{1 - 0.8432}{\sqrt{5}} = 0.0472$$

$$6P.E. = \quad 6 \text{ x } 0.0472 = 0.2832$$

Calculation of Correlation Coefficient between Investment and

Loans & Advances of HBL

FY	Investment (X)	X^2	Loans & Advances (Y)	Y^2	XY
2003/2004	9292	86341264	12919	157495529	120043348
2004/2005	11692	136702864	13451	180929401	157269092
2005/2006	10889	118570321	15761	248409121	171621529
2006/2007	11822	139759684	17793	316590849	210348846
2007/2008	13340	177955600	20179	407192041	269187860
Average	ΣX=57035	ΣX2=659329733	ΣY=80103	ΣY2=1310616941	ΣXY=928470675

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{928470675 - \dfrac{57035 \times 80103}{5}}{\sqrt{659329733 - \dfrac{(57035)^2}{5}} \sqrt{1310616941 - \dfrac{(80103)^2}{5}}}$$

$$= \frac{928470675 - 913734921}{2954.90 \times 5226.74}$$

$$= 0.9541 \qquad r^2_{xy} = 0.9103$$

$$\text{Error (P.E.)} = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - 0.9103}{\sqrt{5}} = 0.0270$$

$$\text{6P.E.} = 6 \times 0.0270 = 0.162$$

Appendix: 6

Calculation of Correlation Coefficient between Investment and

Loans & Advances of NIBL

FY	Investment (X)	X^2	Loans & Advances (Y)	Y^2	XY
2003/2004	3862	14915044	7124	50751376	27512888
2004/2005	3934	15476356	10453	109265209	41122102
2005/2006	5603	31393609	13178	173659684	73836334
2006/2007	6506	42328036	17769	315737361	115605114
2007/2008	6874	47251876	27529	757845841	189234346
Average	ΣX=26779	ΣX2=151364921	ΣY=76053	ΣY2=1407259471	ΣXY=447310784

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x.\Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}}\sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{447310784 - \dfrac{26779 \times 76053}{5}}{\sqrt{151364921 - \dfrac{(26779)^2}{5}}\sqrt{1407259471 - \dfrac{(76053)^2}{5}}}$$

$$= \frac{447310784 - 407324657}{2818.147 \times 15825.539}$$

$= \quad 0.8965 \qquad r^2_{xy} = 0.8037$

$$\text{Error (P.E.)} = \quad 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

$$= \quad 0.6745 \times \frac{1 - 0.8037}{\sqrt{5}} = 0.0591$$

6P.E. = 6 x 0.0591 = 0.3546

Appendix: 7

Calculation of Correlation Coefficient between Total Income and

Loans & Advances of HBL

FY	Total Income (X)	X^2	Loans & Advances (Y)	Y^2	XY
2003/2004	1028	1056784	12919	166900561	13280732
2004/2005	1198	1435204	13451	180929401	16114298
2005/2006	1395	1946025	15761	248409121	21986595
2006/2007	1396	1948816	17793	316590849	24839028
2007/2008	1607	2582449	20179	407192041	32427653
Average	ΣX=6624	ΣX2=8969278	ΣY=80103	ΣY2=1320021973	ΣXY=108648306

$$r_{xy} = \frac{\Sigma xy - \frac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \frac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \frac{(\Sigma y)^2}{N}}}$$

$$= \frac{108648306 - \frac{6624 \times 80103}{5}}{\sqrt{8969278 - \frac{(6624)^2}{5}} \sqrt{1320021973 - \frac{(80103)^2}{5}}}$$

$$= \frac{108648306 - 106120454}{440.230 \times 6060.02}$$

$$= 0.9475 \qquad r^2_{xy} = 0.8977$$

Error (P.E.) = $0.6745 \times \dfrac{1 - r^2}{\sqrt{n}}$

$= 0.6745 \times \dfrac{1 - 0.8977}{\sqrt{5}} = 0.0308$

6P.E = 6 x 0.0308 = 0.1848

Appendix: 8

Calculation of Correlation Coefficient between Total Income and

Loans & Advance of NIBL

FY	Total Income (X)	X^2	Loans & Advances (Y)	Y^2	XY
2003/2004	587	344569	7124	50751376	4181788
2004/2005	791	625681	10453	109265209	8268323
2005/2006	970	940900	13178	173659684	12782660
2006/2007	1314	1726596	17769	315737361	23348466
2007/2008	1758	3090564	27529	757845841	48395982
Average	ΣX=5420	ΣX2=6728310	ΣY=76053	ΣY2=1407259471	ΣXY=96977219

$$r_{xy} = \frac{\Sigma xy - \frac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \frac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \frac{(\Sigma y)^2}{N}}}$$

$$= \frac{96977219 - \frac{5420 \times 76053}{5}}{\sqrt{6728310 - \frac{(5420)^2}{5}} \sqrt{1407259471 - \frac{(76053)^2}{5}}}$$

$$= \frac{96977219 - 82441452}{923.59 \times 15825.53}$$

$$= \quad 0.9944 \qquad r^2_{xy} = 0.988$$

$$\text{Error (P.E.)} = \quad 0.6745 \text{ x} \quad \frac{1 - r^2}{\sqrt{n}}$$

$$= \quad 0.6745 \text{ x} \quad \frac{1 - 0.988}{\sqrt{5}} = 0.0033$$

$$6\text{P.E.} = \quad 6 \text{ x } 0.0033 = 0.0198$$

Appendix: 9

Calculation of Correlation Coefficient between Interest Suspense and

Interest Income of HBL

FY	Interest Suspense (X)	X^2	Interest Income (Y)	Y^2	XY
2003/2004	417	173889	1245	1550025	519165
2004/2005	426	181476	1446	2090916	615996
2005/2006	487	237169	1626	2643876	791862
2006/2007	336	112896	1775	3150625	596400
2007/2008	347	120409	1963	3853369	681161
Average	ΣX=2013	ΣX2=825839	ΣY=8055	ΣY2=13288811	ΣXY=3204584

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{3204584 - \dfrac{2013 \times 8055}{5}}{\sqrt{825839 - \dfrac{(2013)^2}{5}} \sqrt{13288811 - \dfrac{(8055)^2}{5}}}$$

$$= \frac{3204584 - 3242943}{124.12 \times 558.75}$$

$$= \quad -0.5531 \qquad r^2_{xy} = 0.3059$$

$$\text{Error (P.E.)} = \quad 0.6745 \text{ x} \quad \frac{1 - r^2}{\sqrt{n}}$$

$$= \quad 0.6745 \text{ x} \quad \frac{1 - 0.3059}{\sqrt{5}} = 0.2093$$

6P.E. = 6 x 0.2093 = 1.2558

Appendix: 10

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

FY	Interest Suspense (X)	X²	Interest Income (Y)	Y²	XY
2003/2004	30	900	405	164025	12150
2004/2005	38	1444	532	283024	20216
2005/2006	77	5929	681	463761	52437
2006/2007	90	8100	899	808201	80910
2007/2008	106	11236	1202	1444804	127412
Average	ΣX=341	ΣX²=27609	ΣY=3719	ΣY²=3163815	ΣXY=293125

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{293125 - \dfrac{341 \times 3719}{5}}{\sqrt{27609 - \dfrac{(341)^2}{5}} \sqrt{3163815 - \dfrac{(3719)^2}{5}}}$$

$$= \frac{293125 - 253635}{65.977 \times 630.57}$$

$$= 0.9492 \qquad r^2_{xy} = 0.9009$$

$$\text{Error (P.E.)} = 0.6745 \text{ x } \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 - 0.9009}{\sqrt{5}} = 0.0298$$

$$6P.E = 6 \text{ x } 0.0298 = 0.1788$$

Appendix: 11

Calculation of Correlation Coefficient between Shareholder's Equity and

Loans & Advances of HBL

FY	Shareholder's Equity (X)	X²	Loans & Advances (Y)	Y²	XY
2003/2004	2291	5248681	12919	166900561	29597429
2004/2005	2568	6594624	13451	180929401	34542168
2005/2006	2885	8323225	15761	248409121	45470485
2006/2007	2942	8655364	17793	316590849	52347006
2007/2008	3195	10208025	20179	407192041	64471905
Average	ΣX=13881	ΣX2=39029919	ΣY=80103	ΣY2=1320021973	ΣXY=226428993

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{226428993 - \dfrac{13881 \times 80103}{5}}{\sqrt{39029919 - \dfrac{(13881)^2}{5}} \sqrt{1320021973 - \dfrac{(80103)^2}{5}}}$$

$$= \frac{226428993 - 222381948}{702.48 \times 6060.02}$$

$= \quad 0.9506 \qquad r^2_{xy} = 0.9036$

Error (P.E.) $= \quad 0.6745$ x $\quad \dfrac{1 - r^2}{\sqrt{n}}$

$= \quad 0.6745$ x $\quad \dfrac{1 - 0.9036}{\sqrt{5}} = 0.0290$

6P.E. $= \quad 6$ x $0.0290 = 0.174$

Appendix: 12

Calculation of Correlation Coefficient between Shareholder's Equity and

Loans & Advances of NIBL

FY	Shareholder's Equity (X)	X²	Loans & Advances (Y)	Y²	XY
2003/2004	729	531441	7124	50751376	5193396
2004/2005	1180	1392400	10453	109265209	12334540
2005/2006	1415	2002225	13178	173659684	18646870
2006/2007	1878	3526884	17769	315737361	33370182
2007/2008	2686	7214596	27529	757845841	73942894
Average	ΣX=7888	ΣX2=14667546	ΣY=76053	ΣY2=1407259471	ΣXY=143487882

$$r_{xy} = \frac{\Sigma xy - \dfrac{\Sigma x . \Sigma y}{N}}{\sqrt{\Sigma x^2 - \dfrac{(\Sigma x)^2}{N}} \sqrt{\Sigma y^2 - \dfrac{(\Sigma y)^2}{N}}}$$

$$= \frac{143487882 - \dfrac{7888 \times 76053}{5}}{\sqrt{14667546 - \dfrac{(7888)^2}{5}} \sqrt{1407259471 - \dfrac{(76053)^2}{5}}}$$

$$= \frac{143487882 - 119981212}{1491.11 \times 15825.53}$$

$$= 0.9961 \qquad r^2_{xy} = 0.992$$

Error (P.E.) = $0.6745 \times \dfrac{1 - r^2}{\sqrt{n}}$

$= 0.6745 \times \dfrac{1 - 0.992}{\sqrt{5}} = 0.0022$

6P.E. = 6 x 0.0022 = 0.0132

Appendix: 13

Calculation of regression equation of Loans and Advances on Deposit of HBL

Let X is the deposit and Y is Loans and Advances. Then regression equation of Loans and Advances Y on Deposit X is:

$Y_c = a + bx$ ---------------------- (i)

$\Sigma Y = na + b\Sigma X$-------------------- (ii)

$\Sigma XY = a\Sigma X + b\Sigma X^2$--------------- (iii)

From table 4.31, substituting the value in equation (ii) & (iii), we get,

$5a + 135204b = 80103$----------------------------------- (iv)

$135204a + 3718690064b = 2212812976$ -------------- (v)

Then, multiplying equation (iv) by 135204 & (v) by 5 and subtracting equation (iv) from (v), we get,

$676020a + 18593450320b = 11064064880$

$676020a + 18280121616b = 10830246012$

$\underline{\quad\quad\quad - \quad\quad\quad\quad\quad\quad - \quad\quad\quad\quad\quad\quad\quad\quad - \quad\quad\quad\quad\quad}$

$313328704b \quad = \quad 233818868$

$b \quad\quad = \quad \dfrac{233818868}{31332870} = 0.746$

Substituting the value of 'b' in equation (iv), we get,

$5a + 135204 \times 0.746 = 80103$

$5a + 100862.18 = 80103$

$a = -4151.83$

Hence, the regression equation is $Y_c = -4151.83 + 0.746x$.

Appendix: 14

Calculation of regression equation of Loans and Advances on Deposit of NIBL

Let X is the deposit and Y is Loans and Advances. Then regression equation of Loans and Advances Y on Deposit X is:

$Y_c = a + bx$ ---------------------- (i)

$\Sigma Y = na + b\Sigma X$ ------------------- (ii)

$\Sigma XY = a\Sigma X + b\Sigma X^2$ --------------- (iii)

From table 4.32, substituting the value in equation (ii) & (iii), we get,

$5a + 103647b = 76053$ --------------------------------- (iv)

$103647a + 2480844501b = 1864078241$ -------------- (v)

Then, multiplying equation (iv) by 103647 & (v) by 5 and subtracting equation (iv) from (v), we get,

$518235a + 12404222505b = 9320391205$

$518235a + 10742700609b = 7882665291$

_   _   _

_____

$1661521896b = 1437725914$

$$b \quad = \frac{1437725914}{1661521896} = 0.8653$$

Substituting the value of 'b' in equation (iv), we get,

$5a + 103647 \times 0.8653 = 76053$

$5a + 89685 = 76053$

$a = -2726.4$

Hence, the regression equation is $Y_c = - 2726.4 + 0.8653x$.

Appendix: 15

Calculation of regression equation of Loan Loss Provision on

Loans and Advances of HBL

Let X is the Loans & Advances and Y is Loan Loss Provision. Then regression

equation of Loan Loss Provision Y on Loans &Advances X is:

$Y_c = a + bx$ ---------------------- (i)

$\Sigma Y = na + b\Sigma X$-------------------- (ii)

$\Sigma XY = a\Sigma X + b\Sigma X^2$--------------- (iii)

From table 4.33, substituting the value in equation (ii) & (iii), we get,

$5a + 80103 = 4589$--- (iv)

$80103a + 1320021973b = 71837471$--------------------- (v)

Then, multiplying equation (iv) by 80103 & (v) by 5 and subtracting equation (iv)

from (v), we get,

$400515a + 6600109865b = 359187355$

$400515a + 6416490609b = 367592667$

–   –   –

—————————————————

$183619256b = - 8405312$

$b = \dfrac{- 8405312}{183619256} = - 0.0457$

Substituting the value of 'b' in equation (iv), we get,

$5a + 80103 \times -0.0457 = 4589$

$5a - 3660 = 4589$

$a = 1649.8$

Hence, the regression equation is $Y_c = 1649.8 - 0.0457x$.

Appendix: 16

Calculation of regression equation of Loan Loss Provision on

Loans and Advances of NIBL

Let X is the Loans & Advances and Y is Loan Loss Provision. Then regression equation of Loan Loss Provision Y on Loans &Advances X is:

Y_c = a + bx ---------------------- (i)

ΣY = na + bΣX-------------------- (ii)

ΣXY = aΣX + bΣX^2--------------- (iii)

From table 4.34, substituting the value in equation (ii) & (iii), we get,

5a + 27164b = 424 ----------------------------- (iv)

27164a + 176207248b = 2759174 ------------- (v)

Then, multiplying equation (iv) by 27164 & (v) by 5 and subtracting equation (iv) from (v), we get,

135820a + 881036240b = 13795870

135820a + 737882896b = 11517536

$\underline{\quad - \qquad\quad - \qquad\qquad\qquad - \qquad\qquad\qquad\qquad}$

143153344b = 2278334

b = $\underline{2278334}$ = 0.0159

    143153344

Substituting the value of 'b' in equation (iv), we get,

5a + 27164 x 0.0159 = 424

5a + 431 = 424

  a = -1.4

Hence, the regression equation is Y_c = -1.4 + 0.0159x.