

**A comparative study on “CREDIT MANAGEMENT” with
Reference to BOK and NIBL**

A THESIS

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CHAPTER-I

INTRODUCTION

1.1 background of the study

Nepal is one of the least developed countries in the world. It is basically agriculture, mountainous and landlocked kingdom surrounding by two large fast developing nations. China and India about 80% of the total population is engaged on subsistence farming. Despite its large share in labor market, similarly contributes 40% of the total GDP. The economic development of Nepal is still in initial stage. For the economic growth and development, government has now initiated various economic policies such as industrial policy, foreign investment policy privatization policy and trade and transit policy. Actually slow pace of developing of Nepal is due to nothing but landlocked position poor resources mobilization and its utilization, weak infrastructure development and more over unstable eco-political environment.

Nepal has adopted mixed and liberal economic policy with the implicit objective to help the state and the private sector. This liberalization has helped in establishing many companies' banks, finance companies and manufacturing industries. Thus these establishments help the country for its development.

The growth of banking is not so long. In comparison with other developing or developed country, the institutional development in banking system of Nepal is far behind. Commercial banks are growing very fast in Nepal. There are 33 commercial banks all together in Nepal. Banking plays significant role in the economic development of a country. Bank is a resource for the economic development which maintains the self – confidence of various segments of society and extends credit to the people. So commercial banks are those financial institutions mainly dealing with activities of the trade, commerce, industry and agriculture that seek regular financial and other helps from them. The objectives of commercial banks are to mobilize resources which contribute significantly for the formation and mobilization of internal capital and development effort.

The concept of the banking has been developed from the ancient history with the ancient goldsmiths who developed the practice of storing people's gold and valuables under such arrangement the depositors would leave their gold for safe keeping would get back their gold and valuable after paying a small amount as fee for safekeeping serving.

The role of money in an economy is very important proper & 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 economy. Hence money is the topic to manage and banks are the manager. The existence of a bank is for the upliftment of people. Banks are the back bone of the economy. They act intermediaries to channel funds to productive business companies and projects.

The financial institutions are:

- Commercial Banks
- Development Banks
- Finance Companies
- Saving & Credit Associations
- Mutual Saving Banks
- Credit Union
- Insurance Companies
- Pension Funds
- Investment Companies
- Investment Bankers
- Securities Broker & Dealers
- Finance Companies

Banks grant loan & advances to industries people & companies that result in the incensement in the productivity of nation. For example the loan against for agricultural sector enhances the agriculture product on. The loan amount can be used by the farmers as per their need to produce their product that will promote the agriculture product on. Bank is a business organization where monetary transaction occurs. It creates funds from its clients saving & lends the same to needy person or business companies in terms of loans, advances and investment.

Banking plays a significant role in the economic development of a country. Nepal Bank Limited (NBL) is the first commercial Bank of the country. Commercial Banks are the

heart of the financial institutions. They hold the deposits of many persons, government establishment & business units; they made funds available through their lending and investing activities to borrowers, individuals, business firms & government establishments. The facts show that the commercial banking system of the nation is important to the functioning of the economy. Bank which is the resource for the economic development that maintains the self- confidence of various segments of society & extend credit to the people.

The more developed financial system of the world characteristically falls into three parts. The Central Bank, the Commercial Bank and Other Financial Institutions. They are known as financial intermediaries. The banking business has its genesis from its function of lending. Lending is the most fundamental function of a bank.

1.2 Credit Management

Credit is regarded as the most income generating assets especially in commercial banks. Credit is regarded as the heart of the commercial banks in the sense that, it occupies large volume of transaction, it covers the main part of investment; the most of the investment activities based on credit; it is the main factors for creating profitability; it is the main source of creating profitability; it determines the profitability. It affects the overall economy of the country. In today's context, it also affects on national economy to some extent. If the bank provides credit to retailer, it will make the customer status. Similarly, it provides to trade & industry, the government will get tax from them & help to increase national economy. Management is also the system which helps to manage credit effectively. In other words, credit management refers management of credit exposures are the main source of investment in commercial banks and return on such investment is supposed to be main source of income.

Credit management strongly recommends analyzing & managing the credit risks. Credit risk is defined as the possibility that a borrower will fail to meet its obligations in accordance with the agreed terms and conditions credit risk is not restricted to lending activities only but includes off balance sheet and inter- bank explores. The goal of the credit risk management is to maximize a bank's risk adjusted rate of return by maintaining the credit risk exposure within acceptable parameters. For most banks, loan are the largest & most obvious sources of credit risk however, other sources of credit risk

exist throughout the activities of bank, including in the banking book, and in the trading book, and both increasingly facing credit risk in various financial instruments other than land including acceptances, inter bank transactions and guarantees and the settlement of transactions.

1.3 Introduction of Sample Organization under Study:

1.3.1 Nepal Investment Bank Ltd (NIBL):

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

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

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

- A group of companies holding 50% of the capital.
- Rastriya Banjiya Bank holding 15% of the capital.
- Rastriya Beema Sansthan holding the same percentage.

The remaining 20% being held by the General Public (which means that NIBL is a company listed on the Nepal Stock Exchange).

1.3.2 Bank of Kathmandu (BOK):

Bank of Kathmandu limited has become a prominent name in the Nepalese banking sector. We would like to express our sincere gratitude to our customer shareholders, employees & other stakeholders for their support and co-operation for lending the bank to the present height of achievements. We wish to reiterate here that whatever activity we undertake, we put in conscious efforts to glorify our corporate slogan, and "we make your life easier."

We would also like to elucidate that bank of Kathmandu is committed to deliver quality service to customers, generating good return to shareholders, providing attractive incentives to employees and serving the community through stronger corporate social responsibility endeavor.

Bank of Kathmandu Limited (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public.

BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally.

Vision

To become a significant contributor to the economic development of Nepal by distinguishing the Bank as an efficient, competitive, safe and top-quality financial institution.

Mission Statement

To offer financial services and become the "Bank of Choice" by dedicating the progress and growth of the institution to the community, customers, employees and stockholders by:

Promoting economic growth and becoming a caring corporate citizen

Providing excellent customer services by offering personalized quality services and products

Including modern technologies of banking that add value to customer services

Following strict risk-control mechanisms

Enhancing shareholders value

Providing challenging career and learning opportunities for our employees

1.4 focus of the study:

Although the Himalayan Bank Limited and Nepal Investment Bank have managed credit than other commercial banks within short period of time, they have been facing cut throat competition against one another. In Nepal there are 33 commercial banks. The study is focused on evaluating the deposit utilization of the banks, in term of loan and advance, investment and its contribution to the profitability of the bank. Commercial banks hold deposit of many persons, government and business units. They make fund available through their lending and investing activities to borrowing individual business firms and government.

Here researcher has focused this resource mainly to highlight and examine the credit management of the selected bank ignoring other aspects of bank transaction. To highlight the credit management of the bank, the research is based on the certain statistical tools i.e. mean, standard deviation, coefficient of variation, coefficient of correlation, coefficient of determination and trend analysis with a view to find out the true picture of the bank. The main objective of this research is to analyze the credit management through the use of appropriate financial tools.

1.5 statement of problem:

Most major banking problems have been caused by weakness in credit management. Banks should now have been a keen awareness of the need to identify measure, monitor and control credit as well as to determine that they hold adequate capital against it. These risks that they are adequately compensated for risks incurred. So to establish creditability position is a major issue in commercial banking sector during these days.

It is no debate that high profitable or successful organization can easily fulfill the every need of the organization, customers and can serve the society. To improve the profitability situation of the bank, it is necessary to establish the higher creditability position of the bank. Thus, the creditability is the major strategy of every commercial bank.

Credit is the most effective and sincere area in commercial bank. It is regarded as the heart of every commercial bank. But the banking sector is for from fact. Thus, credit management is considered as the heart issues in Nepalese commercial banking sector.

Credit management concept has appeared as a major research gap in Nepalese commercial banking sector. There is lack of such scientific and empirical research that could identify the issues of credit management in Nepalese commercial banks. In the regard, the performance of Nepalese commercial banks is to be analyzed in term of their credit. Some research questions regarding to the credit practices, credit efficiencies, liquidity position, industrial environment, management quality, organization climate, are considered as a clear evident in present situation. Thus, the specific research questions regarding credit management in Nepalese commercial banking sector are identified as follows:

- Is the credit practices adopted by commercial banks in good position?
- What is the credit efficiency of the Nepalese Commercial Banks?
- Is there any relationship between credit position and profitability situation?
- What is the status of credit portfolio of commercial banks in term of?

1.6 Objective Of The Study :

Basic objective of the present study is to explore the credit efficiency or inefficiency and its management in commercial banks. It is also aimed to find out the relationship between credit practices and profitability situation. Moreover the study has specified the following objectives.

- To assess credit practices of selected Nepalese commercial banks.
- To explore the credit efficiency of selected Nepalese commercial banks.
- To analyze the credit and advances provided by Bank of Kathmandu Ltd. and Nepal Investment Bank Ltd.
- To analyze the recovery status of the credit disbursed by Bank of Kathmandu Ltd. and Nepal Investment Bank Ltd.
- To determine the relationship between credit policy and profitability of Bank of Kathmandu and Nepal Investment Bank Ltd.

1.7 Limitation of the study:

- This study covers period including the latest data available as far as possible.
- The study has been prepared under the limited time factor i.e. 2006/07 to 2010/11. Regardless of the limited time. I have devoted sincerely to gather analyze and report the best possible information.

- Although direct interview was taken with staff but the most of the study is based on secondary data collected from the banks, particularly based on data gathered from the published annual report of the banks.
- The data are presented at rounding figure.

1.8 organization of the study:

Chapter - I Introduction

Chapter one is the introduction chapter. It includes background of the study, introduction of sample banks, statement of the problems, objectives of the study, and limitations of the study and chapter plan of the study.

Chapter - II Review of Literatures

Chapter two is deals with review of literatures, which includes conceptual/theoretical review and review of related studies.

Chapter - III Research Methodology

Chapter three is research methodology which includes research design, population and sample, sources of data, data collection techniques and data analysis tools.

Chapter - IV Data Presentation and Analysis

Chapter four are deals with the various analysis and interpretations of data like analysis of deposits, loan & advances and profits of Bank of Kathmandu and Nepal Investment Bank Limited, financial and statistical analysis and analysis of primary data. It also shows major findings of the study.

Chapter - V Summary, Conclusion and Recommendation

Chapter five includes summary and conclusion of the study. It also deals with recommendations suggested.

The list of bibliography and appendix with annexes are given at the last for references.

CHAPTER - II

REVIEW OF LITERATURE

The review of literature is a crucial aspect because it denotes planning of the study. The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field of books, reports, journals and research studies published by various institution unpublished dissertations submitted by master level students have been reviewed. It is divided into two heading:

- Conceptual review
- Review of related studies

2.1 conceptual Review:

The review of textbook and other reference materials such as: newspaper magazines, research article, journal and past thesis have included in this.

Credit administration involves the creation and management of risk assets. The process of lending takes in to consideration about the people and system required for the emulation and approval of loan requests negation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness are important in setting objective and goal for lending activities and for allocating available funds to various lending functions such as commercial, installment and mortgage portfolio.(Johnson, 1949:132)

A bank's overall corporate strategy and strategic plan need at least three critical components.

- A business plan
- A framework for risk management
- Strategies for corporate control

There are the basic components provide a solid foundation for managing value and risk. As with traditional approach to strategic planning, its focus is just on

Operating and completing in the financial services industry. The modern strategic approach also includes a framework for risk management and strategies for completing in the market for corporate control. This risk management component fits the modern idea of the basic business of banking as measuring managing and accepting risk. The bank objective is to manage value and risk by maximizing those items that create value and minimizing or eliminating those that destroy value. It is very important to be reminded that most of the bank failures in the world are due to shrinkage in the value of loan and advance. Hence, risk of non-payment of loan is known as credit risk default risk (Dahal, 2002:114).

Portfolio management helps to minimize or manage the credit risks by spreading over the risk t various portfolio. This method of managing credit risk is guided by the saying do not put all the eggs in a single basket (Bhandari, 2004:300).

2.1.1 Concept of commercial bank:

Before defining the term commercial bank, let us define the meaning of bank and commercial. According to S&S definition of banks, a banker or bank is a person or company carrying on the business of receiving money and collecting cheque drawn upon them from time to time by the customer to the extent of the amount available on their customer (Shekher&Shekher, 1999:4).

Commerce is the financial transactions related to selling and buying activities of goods and services. Therefore commercial banks are those banks, which work from commercial viewpoint. They perform all kinds' creation and agency functions. They provide short-term credit, medium term credits and long terms credit to trade and industry. They also operate off balance sheet functions such as issuing guarantee, bonds, letter of credit, etc. Commercial bank acts as an intermediately; accepting deposits and providing credits to the needy area. The main source of the commercial bank is current deposit, so they give more importance to

the liquidity of investment and as such they specialize in satisfying the short-term credit needs of business other than the long-term. Commercial banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short-term needs of trade and industry such as working capital financing. They cannot finance in fixed assets. They grant credits in the form of cash credits and overdrafts. Apart from financing, they also render services like collection of bills and cheques, safe keeping of valuables, financial advising, etc to their customers (*Vaidhya; 1999:7*).

Commercial banks are organized as a joint stock company system, primarily for the purpose of earning profit. They can be either of the branch banking types as we see in most of countries, with a large network branches like in Nepal or of the unit banking type, as we see in the United States where a bank's operations are confined to a single office or to a few branches within a strictly limited area.

The commercial banks are those banks that pool together the savings of community and arrange for their productive use. They activate the idle money to the different productive areas. They supply the financial needs of modern business by various means. Most of the banks in the world are found established with a view to finance and help in developing trade, industry and commerce. In fact, commercial banks can be defined according to the function they perform. Commercial banks can accept deposits and also provide loan primarily to business firms thereby facilitating the transfer of funds in the economy.

2.1.2 Functions of Commercial Bank:

The business of commercial bank is primarily to hold deposit and make credits and investments with the object of securing profits for its shareholders. Its primary motive is profit; other consideration is secondary (*Shudharsanam, 1976:123*). The major functions of commercial banks are as follows.

- Accepting deposit
- Advancing credit
- Agency creation
- Credit creation
- Financing of foreign trade

- Safekeeping venture capital credits
- Financial advising, security brokerage services

- **Assist in Foreign Trade:**

The bank assist the traders engaged in foreign trade of the country. He discounts the bills of exchange by exports to receive money in the home currency. Similarly, he also accepts the bills drawn by foreign exports (Vaidhya, 1999:29).

- **Offers Investment Banking and Merchant Banking Services:**

Banks today are following in the footsteps of leading of financial institutions all over the globe in offering investment banking merchant banking services to corporations. These services includes indentifying possible merger targets, financing acquisitions of other companies, dealing in security underwriting, providing strategic marketing advice and offering hedging services to protect their customers against risk from fluctuating world currency prices and changing interest rates,(Vadhya, 1999:29). Further, they support the overall economic development the by modes of financing.

2.1.3 Concept of Credit:

Credit is the amount of money lent by the creditor (bank) to the borrower (customers) either on the basis of security or without security. Sum of the money lent by a bank, is known as credit (Oxford Advanced Learners Dictionary 1992:279).

Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances, which is one the major sources of income for banks: Bank prepares credit portfolio, otherwise it will not only add debts but also affect profitability adversely, (Varshney and Swaroop, 1994:6)

Credit administration involves the creation and management of risk assets. The process of lending takes into consideration about the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration

of outstanding loans and workouts, knowledge of the process and awareness of its strength and weaknesses are important in setting objectives and goals for lending activities and for allocating available funds to various lending functions such as commercial, installment and mortgage portfolios (*Johnson; 1940: 132*).

Book named "Banking Management" says that in banking sector or transaction, an unavoidable-ness of loan management and its methodology is regarded very important. Under this management, many subject matters are considered and thought. For example, there are subject matters like the policy of loan flow, the documents of loan flow, loan administration, and audit of loan, renewal of loan, the condition of loan flow, and the provision of security, the provision of the payment of capital and its interest and other such procedures. This management plays a great role in healthy competitive activities (*Bhandari; 2003: 170*).

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Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation of repay on specified date on demand. Banks generally grants credit on four ways: (*Chhabra, and Taneja; 1991: 4*)

- Overdraft
- Cash Credit
- Direct Credit
- Discounting of Bills

The basic purpose of a commercial bank is to maximize the shareholders' wealth by accepting deposits and granting loans in the society. In order to give maximum return to shareholders, the bank is required to invest most of its fund in loans and advances, risky assets. Consequently, a clear and sound loan credit policy is a must for the safety of depositors fund and adequate return to shareholders. Credit policy can be defined as the decision made in advance about the management of credit.

Credit is the vital and the most important activity in the bank, next only to deposit mobilization. It is the activity that generates the main income stream for the bank. The activity should therefore be pursued with the utmost professionalism conservation and circumspection. Banks should develop and implement policies and procedures to ensure that the credit portfolio is adequately diversified given the bank's target markets and overall credit strategy. In particular, such mix as well as set exposure limits on single counters parties and groups of connected counters parties, particular industries or economic sectors, geographic regions and specific products. Banks should ensure that their own internal exposure limits

Imply set by the banking supervisors. Credit policies establish the framework for lending and guide the credit granting activities of the bank.

2.1.4 Types of Credit:

- **Overdraft:**

It denotes the excess amount withdrawn over their deposits

- **Cash Credit:**

The credit is not given directly in cash but deposit account is being opened on the name of credit taker and the amount credited to that account. In this way, every credit creates deposit.

- **Term Credit:**

It refers to money lend in lump sum to the borrowers. It is principal form of medium term debt financing having maturities of 1 to 8 years. A bank credit with maturities exceeding 1 year is called term credits. The firm agrees to pay interest based on the bank's prime rate and to repay principal in the regular installments. Special patterns of principal payments over time can be negotiated to meet the firm's special needs (Richard, 1996: 80).

- **Working Capital Credit:**

Working capital denotes the difference between current assets and current liabilities. It is granted to the customers to meet their working capital gap for supporting production process. A natural process develops in funds moving through the cycle are generated to repay a working capital credit

- **Priority or Deprived Sector Credit:**

Commercial banks are required to extend advances to the priority and deprived sector. 12 % of the total credit must be towards priority sector including deprived sector. Rs. 2 million for agriculture cum service sector and Rs. 2.5 million for single borrowers are limit sanctioned to priority sector.

Institutional support to 'Agriculture Development Bank' and 'Rural Development Bank' are also considered under this category. Deprived sector lending includes:

- Advances to poor/downtrodden/weak/deprived people up to Rs. 30,000 for generating income or employment.
- Institutional credit to rural development bank.
- Credits to NGOs those are permitted to carryout banking transactions for lending up to Rs. 30,000.

- **Hire Purchase Financing (Installment Credit):**

Hire-purchase credits are characterized by periodic repayment of principal and interest over the maturity of the credit. Hirer agrees to take the goods on hire at a stated rental including their repayment of principal as well as interest with an option to purchase. A recent survey of commercial banks indicates those banks are planning to offer installment credits on a variable rate basis. It can be secured and unsecured as well as direct and indirect installment credit.

- **Housing Credit (Real Estate Credit):**

Financial institutions also extend housing credit to their customers. It is different types, such as: residential building, commercial complex, construction of warehouse etc. It is given to those who have regular income or can earn revenue from housing project itself.

- **Project Credit:**

Project credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit. Construction credits are short-term credits made to developers for the purpose of completing proposed projects. Maturities on construction credits range from 12 months to as long as 4 to 5 years, depending on the size of the specific project (*Johnoson; 1940: 242*). The basic guiding principle involved in disbursement policy is to advance funds corresponding to the completion stage of the project. Hence, what percent of the credit will be disbursed at which stage of completion must be spelled in disbursement policy? Term of credit needed for project fall under it.

- **Consortium Credit:**

No single financial institution grant credit to the project due to single borrower limit or other reason and two or more such institutions may consent to grant credit facility to the project of which is baptized as consortium credit. It reduces the risk of project among them. Financiers bank equal (or likely) charge on the project's assets.

- **Credit Cards and Revolving Lines of Credit:**

Revolving credit line lowers the cost of making credit since operating and processing cost are reduced. Due to standardization, centralized department processes revolving credits resulting reduction on administrative cost. Continued borrowing arrangement enhances cost advantages. Once the credit line is established, the customer can borrow and repay according to his needs and the bank can provide the fund to the customer at lower cost. Charge cards and credit lines tied to demand deposit accounts are the two most common revolving credit agreements. It can be further divided into credit cards, automatic overdrafts lines and large credit lines.

- **Off-Balance Sheet Transaction:**

In fact, bank guarantee and letter of credit refer to off balance sheet transactions of financial institution. It is also known as contingent liability. Contingent liability pinpoints the liability, which may or may not arise during the happening of certain event. Footnotes are kept as reference to them instead of recording in the books of accounts.

It is non-funded based remunerative facilities but more risky than the funded until adequate collateral are not taken. Lets its two varieties be described separately.

- **Bank Guarantee:**

It is used for the sake of the customers in favor of the other party (beneficiary) up to the approved limit. Generally, a certain percent amount is taken as margin from the customer and the customer's margin account is credited.

- **Letter of Credit (L/C):**

It is issued on behalf of the customer (buyer/importer) in favor of the exporter (seller) for the import of goods and services stating to pay certain sum of money on the submission of certain documents complying the stipulated terms and conditions as per the agreement of L/C. It is also known as importers letter of credit since the bank of importer do not open separate L/C for the trade of same commodities.

2.1.5 Objectives of the Sound Credit Policy:

The purposes of a written credit policy are

To assure compliance by lending personnel with the bank's policies and objectives regarding the portfolio of credit and

To provide personnel with a framework of standards within which they can operate.

2.1.6 Lending Criteria:

While screening a credit application, 5-c's first considered supported by documents. They are:

- **Character:**

Character is the analysis of the applicant as to his ability to meet the obligations put forth by the lending institution. For this analysis, generally the following documents are needed.

- Memorandum and Articles of Association
- Registration certification
- Tax registration certificate (Renewed)
- Resolution to borrow
- Authorization –person authorizing to deal with the bank
- **Capacity:**

Describes customer's ability to pay, It measured by applicants past performance records and followed by physical observation. For this, an interview with applicant's customers/ suppliers will further clarify the situation, Documents relating this area were:

- Certified balance sheet and profit loss account for at least past 3 years.
- In case of the personal loan they have to submit the proof source of income.
- References or other lenders with whom the applicant has dealt in the past or bank A/C.
- **Capital :**

This indicates applicant's capacity to inject his own money. By capacity analysis, it can be concluded that whether borrower is trying to play with lender's money only or is also injecting his own fund to the project. For capital analysis, financial statements, like certified balance sheet, profit and loss is the only tools.

- **Collateral :**

Collateral is the security proposed by the borrower. Collateral may be of either nature movable or immovable. Movable comprises right from stock, inventories to playing vehicles. In case of immovable it may be land with or without building or fixtures, plant machineries attached to it.

- **Conditions:**

Once the funding company is satisfied with character, capacity, capital and collateral then a credit agreement (Sanction letter) is issued favor of the borrower starting conditions of the credit to which borrower's acceptance is accepted.

2.1.7 Principle of Sound Lending Policy:

Lending constitutes the main business of a banking company. A major chunk of the profit of a bank comes out of this function. But no lending can take place without some inherent risks. As bankers are trustees of the depositors' money, they cannot take undue risks. A banker has to follow a cautious policy and conduct the business of lending on the basis of certain sound principles. Here are some of the important principles of sound lending.

- **Safety:**

The main business of banking consists in borrow various types of deposits such as current, saving and fixed deposits and lending such deposits to needy borrowers in the form of advances and discounting of bills. The obviously implies that of such funds should be ensured. Otherwise the banker will not be in a position to repay his deposits and once the confidence of the depositors is shaken, he cannot carry on the banking business.

If the banker has to ensure safe lending, he has to look to the three C's of the borrower namely character, capacity and capital. Character of the borrower is important because that determines his willingness to repay the loan. His capital and capacity to run the business successfully determine his capacity to pay. The safety of the loan depends on both his capacity to repay and willingness to repay.

Banks will have to keep a portion of the deposits received for honoring the demands made by the customers. Only the balance can be safely. The bank's endeavor is of course to lend as much of the deposits as possible, without he will not be in a position to meet his interest, obligations and the maintenance of establishment. Therefore, he has to lend with a view to earn interest but lend it safe.

- **Liquidity:**

By liquidity is meant the readiness with which the bank can convert the assets into cash. Liquidity means short-term solvency of the borrower. A banker is essentially the lender of short-term funds because he knows that the bulk of his deposits are repayable on demand or at short notice. As the banker's deposits are subject to the legal obligation of being repayable on demand and at short notice, he must ensure liquidity also while lending, so that in times of need, he will be able to convert the assets into cash.

Bank can ensure high liquidity by keeping all deposits in the form of cash only. In such case, he will not be in position to meet the interest obligations and expenditure of the establishment. From experience, he has learnt that he can safely lend out a substantial portion of the funds. But while lending he should try to ensure liquidity, i.e. in times of need, he must be able to obtain repayment of the money within a reasonably short time. Liquidity also implies that the assets can be sold without any loss. Thus the concept of liquidity has twin aspects namely quick sale ability or convert ability of the assets and the absence of risk of loan in such conversion.

- **Profitability :**

Commercial banks obtain funds from shareholders and naturally if dividend is to be paid on such shares it can only earning profits. Even in the case of public sector banks although they are service motivated they will have to justify their existence by earning profits. This is not possible unless the funds are employed profitably. From out of the revenue earned, the banker has to pay interest on deposits, salary to the staff, met other establishment expenses, build- up reserves and the balance must permit the payment of divided to shareholders. So for the bank to sustain on a long run, it has to seek many profitable sectors where it can mobilize its collected fund. Before lending, a banker has to see that the advance and credit is on the whole profitable. Lending rates are affected by banks' internal policy like credit rating of the borrower, bank rate of NRB, inter- bank competition and NRB's guidelines on lending rates.

- **Purpose of Loan:**

Nowadays, the purpose for which loans are granted has acquired precedence over the principle of security. If a loan is required for a non-productive of speculative purpose, a banker will be reluctant to entertain the proposal. Loans for social functions, ceremonies

pleasure trips or for repayment of prior loans are not favored by a banker, as they are unproductive in nature. But it is very difficult for the bank to ensure that the advance has been used for the purpose for which it was taken. A person may take a loan obviously for a productive use, but may spend it on speculation. The central bank through its directives, also determines the policy to be followed by the banks with regard to the purpose for which advances may not be granted. So a banker should enquire the purpose for which it is taken for safe lending.

- **Security:**

Traditionally, bankers have security oriented. The security offered against a loan can be of various types. It may vary from a piece of land or a building to a commercial paper or bullion. Whatever may be the security, a banker has to realize that it only a cushion to fall back upon in case of need and its adequacy alone should not form the sole consideration for advance. It must be ensured that the security when accepted must be adequate, readily marketable, easy to handle and free from encumbrances.

- **Diversification of Loans:**

There is a very familiar saying that “Do not put all the eggs in the same basket.” Banker should try to diversify loans as far as possible, so that he may minimize his risks in lending. If the banker lends only to one industry or only too few big firms or concentrates in a certain geographical area, the risk is great. He should diversify lending, so that he may not be affected by the failure of one industry or of a few big borrowers. A banker who puts all his eggs in one basket is not a prudent banker.

- **National Interest and Suitability:**

Bankers must ascertain on what type of business the customer is involved whether it serves the national interest or not, whether the firm is acting responsibly towards the society that it is operating in like brick industry or the cement industry and the precautions taken by it against environment pollution. Central bank issues directives, prohibiting banks to invest in various sectors such as the import of arms and ammunitions etc. also bankers must remain vigilant of the law and order situation where borrower carries its business.

2.1.8 Some Important Banking Terms:

The study in this section comprises of some important banking terms for which efforts have been made to clarify the meaning, which are frequently used in this study. Which are given below?

- **Deposits:**

A deposit is the most important source of liquidity for a commercial bank. It is also the main source of fund that a bank usually uses for the generation of profit. Therefore, the efficiency depends on its ability to attract deposits. Banks collect the scattered saving of the public through various account types like saving, current, fixed etc. Deposit being the borrowed amount from the depositors or from general public and institutions, it constitutes the liability of a bank. The management of a bank is always influencing it through deliberate policy action; the deposits of a bank affected by various factors. They are as follows.

- Types of customers
- Physical facilities of bank
- Management accessibility of customers
- Types and range of services offered by the bank
- Interest rate paid on deposits
- Goodwill and financial position of the bank

In addition to the above, the prevailing economic conditions exert a decisive influence on the amount of deposit the bank receives.

- **Loans and Advances:**

“Loan, advance and overdraft are the main sources of income for a bank. Bank deposits can cross a desired level of loans, advances and overdraft will never cross it. The facilities of granting loan, advances and overdraft are the main services in which customer of the bank can enjoy.

Fund borrowed from bank are much cheaper than those borrowed from unorganized money lenders. The demand for loan has excessively increased due to cheaper interest

rate. Furthermore, an increase in an economic and business activity always increase the demand for the fund. Due to limited resources and increase loans, there is some fear that commercial banks and other financial institution too may take more preferential collateral while granting loans causing unnecessary trouble to the general customers.

In addition to this, some portion of loan advances and overdraft includes that amount which is given to staff of the bank for house loan, vehicle loan, personal loan and others. In mobilization of commercial banks fund, loan advance and overdraft have occupied a large portion.

- **Investment on Government Securities, Share and Debenture:**

“Though a commercial bank can earn some and dividend from the investment of government securities, share and debenture, it is not the major portion of income, but it is treated as a second source of banking business. Commercial banks may extend credit by treating it as a second source of banking business. A commercial bank may extend credit by purchasing government securities bonds and shares for several reasons.

Some of them are given as:

- It may want to space it maturates so that the inflow of cash coincide with expect withdrawals by depositors or large loan demands of its customers.
- It may wish to have high grade marketable securities to liquidate if its primary reserve becomes inadequate.
- It may also be forced to invest because the demand for loans has decreased or is not sufficient to absorb its excess reserves.

However, investment portfolio of commercial bank is established and maintained primarily with a view of nature of banks liabilities that is since depositors may demand fund in great voile without previous notice to banks. The investment must be of a type that can be marketed quickly with little or no shrinkage in value.

- **Investment on other Company’s and Debentures:**

Most of commercial banks invest their excess fund to the share and debenture of the other financial and non-financial companies. Due to excess fund but least opportunity to invest

those funds in much in much more profitable sector and to meet the requirement of NRB directives, the commercial banks purchase shares and debenture of regional development bank, NIDC and other development banks.

- **Liquidity:**

Liquidity is the ability of bank to meet its on time, especially in relation to repayment of inter-bank borrowings and customer deposits. Liquidity management is a very crucial job of commercial bank and the bank should

Maintain adequate amount of cash in its value and NRB for its daily operation and administrative purpose.

- **Capital Adequacy:**

Capital is the blood of any business without which business cannot be run or established. In financial term, capital is the excess of assets over liabilities and can be defined as the wealth, which is employed for the production. Capital is required by a bank as a cushion to absorb losses, which should be borne by shareholders rather than depositors and to finance the infrastructure of the business. Capital adequacy is to maintain adequate amount of capital or fund to safeguard the money of the depositors against any possible loss. NRB requires banks to maintain a certain capital adequacy ratio based on the total risk weighted assets and the banks are supposed to meet the maintain requirement of CAR.

- **Off- Balance Sheet Activities:**

Off balance sheet activities involve contracts for future purchase or sale assets and all these activities are contingent obligations. These are not recognized as assets or liabilities on balance sheet. Some examples of these items are letter of credit, letter of guarantee, bills of collection etc. These activities are very important, as they are the good source of profit of bank though they have risk. Nowadays, some economists and finance specialists to expand the modern transactions of a bank stressfully highlight such activities.

- **Banking Risks:**

Normally, banks confront different kinds of risks, which are categorized as follows:

- **Credit Risk:**

Credit risk arises whenever another party enters into an obligation to make payment or deliver value to the bank. This risk is mostly associated with the lending.

- **Liquidity Risk:**

Liquidity risk arises when bank itself fail to meet its obligation. The bank required to make payment to the different parties at different times, when they fall due to other parties, it is the liquidity risk.

- **Yield Risk:**

It is the risk that bank's assets may generate less income than expenses generated by its liabilities.

- **Market Risk:**

The risk of loss resulting from movement in the market price of financial instrument in which the bank has a position is the market risk. Such instruments include bonds, equities, foreign exchange and associated derivative products.

- **Operational Risk:**

The risk of failure in the banks procedures or controls, whether from external or internal causes or as a result of error or fraud within the institution is the operational risk.

- **Ownership/ Management Risk:**

The risk that shareholders directors, senior management be unfit for their respective positions or dishonest.

2.1.9 Project Appraisal:

Before providing credit to the customer, bank makes analysis of project from various aspects and angles. It will help the bank to see whether project is really suitable to invest. The purpose of project appraisal is to achieve the guarantee of reasonable return from the project. Project appraisal answers the following questions:

- Is the project technically sound?

- Will the project provide a reasonable return?
- Is the project in line with the overall economic objectives of the economy?

Generally, the project appraisal involves the investigation from the following aspects (Gautam; 2004: 258):

- Financial aspect
- Economic aspect
- Management/Organizational aspect
- Legal aspect

Directives Issued by NRB for the Commercial Bank :(related to credit aspect only):

Credit Classification and Provisioning:

Classification	provision
Pass	1%
Substandard	25%
Doubtful	50%
Loss	100%

Those credit that have not crossed the time schedule of repayment and are within 3 months delay of maturity date fall under the classification topic ‘pass credit’. It is also known as performing credit.

Substandard credit are those credit which are already crossed the repayment time schedule and are within 3-6 months delay of maturity date. Likewise, within 6-12 months delay from the time to be recovered are classified as doubtful credit. Those credits, which are not recovered yet after 1 year from maturity date, are known as bad credit. All the above 3 types of credits are classified as non-performing credit also.

The credit loss provision for performing credit is termed as general credit loss provision whereas the credit loss provision for non-performing credit is termed as specific loss provision.

Auditor has to correctly rate the credit and ensure that accurate credit loss provision has been made. The auditor should examine whether the bank has to inspect compliance of terms and conditions laid down. Credit audit is required to check whether credit given is within authority, drawing power, etc. credit audit helps the bank to know quality of its credit, its weakness and strengths. This, in turn, helps the bank to adopt correctable measures where weaknesses have been pointed out and to focus further on strengths. General guidelines whether to reject or renew the credit can be establish with the help of credit audit.

Limit of Credit and Advances in a particular Sector:

- Fund based credit and advance can be issued up to 25 %(upper limit) of core capital to single customer, firm, company and a group of related customer.
- Non-fund based (off-balance item) can be issued up to 50% of core capital to a single customer, firm, company and group of relate customer.

Note: The core capital includes {paid up capital + sharepremium+ non-redeemable preference share + general fund + accumulated profit (loss) – goodwill (if any included)}
Group of related customer.

- If a company takes 25% or more share of another company.
- Member of board of directors of company shareholders of private limited company and such member and shareholder with others in a single house, even if husband, wife, son, daughter in law, unmarried daughter, adopted son, adopted unmarried daughter., father, mother, stepmother and brother and sisters whom be should look after. And the above members personally or combined take 25% or more share of another company.
- Firm company and member as related group.
- Members of board of directors, shareholders and other relatives as stated in serial number 'b' takes less than 25% of board of directors of the company solely or combined but have control on the other company by the following ways:
 - Being president of board of directors of the company.

- Being executive directors of the company.
- Nominating more than 25% of member of board of directors of the company.
- If cross guarantee is given by one company to another company.

2.2 Review of related journals/ Articles:

Subedi, (2004) has between the first six months of the fiscal year 2002-03 & 03-04. Which shows that therefore has been noticeable increase in credit outflow by the commercial banks except Nepal bank ltd (NBL) & Rastriya Banijya Bank (RBB) (the state owned banks)? There has been increase in credit- deposit (CD). Ratios of all commercial banks except NBL & RBB in which case it has gone down by 10.41% & 5.99% respectively. It may be because their concentration was only on recovery of the huge. Non performing assts (NPA). However Mr. Subedi pointed out, no matter what the size of NPA is & the circumstances are, each bank has to collect the deposit in order to create a lending & to invest in the new ventures. Except RBB all banks has increment in deposit collection.

A decrease on CD ratio (the percentage of the deposit mobilization over the credit) signifies the presence of high liquidity & comparatively. Lower fund mobilization & vice versa. High liquidity & idle funds will result in lower profit. HBL has the digest growth of 18.47% in CD ratio over the last year. Similarly, NABIL, Everest bank Ltd (EBL) & Nepal SBI bank have recorded growth rates of 6.28%, 11.83%,& 7.45% respectively (in year 004) in CD ratio. However, this ratio of the commercial banks has declined, large due to factors external to the banks.

As per the NRB directives, all commercials banks to maintain loan loss provision according to the size of overdue loans. Nepal credit & commerce bank (NCCB) were able to decrease its loan provision by 27.63% as compared to the previous year indicating a good recovery of interest as well as principal. In case of Nepal investment bank (NIBL) growth in loan loss provision (which is fact decreased by 6.73%) was much less that the growth of the total credit (which increased by 53%) similarly, NBL

& HBL were able to maintain a healthy composition of loan loss provision (decreased by 9.49%&0%) & credit (increase by 3.70%&26.78%), again signifying good results from their loan recovery, effort. In case of other banks, the situation isn't satisfactory as the growth of loan loss provision is huger than the growth of credit.

A bank's stability depends on the reserve it maintains. NABIL'S reserve growth is very good i.e. 1400% on retained earning & 67.86% on their reserves. Similarly, all other banks have except NCCB &KBL made noticeable increment in it. The major yardstick to measure the status of the bank (which is the prime concern of shareholders) is the spread between what the banks has earned & expenses. In this regard, KBL has made the significant growth of 181.25% in profit as compared to the previous year. Similarly standard chartered bank (SCBL), NABIL, HBL, BOK, EBL, NSBI, NICB & NCCB have the growth percentage 7.72%, 6.33%, 43.73%, 29.83%, 61.8%, 62.76%, 29.76%, 37.89% & 4.03% respectively.

His majesty's government of Nepal has promulgated ordinance to replace several existing acts related to the banks & financial institution: commercial bank act 2031 Development Bank Act, Agriculture Development Bank Act, NIDC Act, finance company Act etc related to financial institutions. The major high lights of the ordinance are universal banking that makes all the banks & financial institutions government by a single act making the legal process much efficient & with less confusion & it have protected the rights & welfare of the depositors & investors.

However this ordinance has lots of unclear issues, which has created confusion to the existing banks& financial institutions. The ordinance has classified the financial institutions into categories replacing the present term as commercial, development or finance companies. The act has classified the category as "ka" category can mention itself as a bank; the rest of the category should name itself only as a financial institution. The ordinance has crusted confusion to the existing development banks & finance companies as what category they belong to? The positive aspect of this ordinance is that the financial category will also be allowed to carry out several financial activities that were previously allowed to only commercial banks. Such, as opening current accounts, issuing draft & exchange & issuing letter of credits. Even the financial institutions, which falls under the category "Ga" are permitted to handle current account, saving account & to some extent, Foreign currency transactions. Due

to these changes, the consumer will benefit of the the competition among these banks & financial instructions’.

In an article karki 2053 identifies. "The major cause such as poor loan analysis. Guarantee oriented loan system, depreciation of valued assets, miscue of loan, lack of regular supervision of loan. (karki 2053:87)

In Nepalese context, when the cause of increasing trend of non-performing loan, the interest rate is increased it cause the decreases in economic activities as well as capacity of borrower. Sometimes debtors knowingly improper credit analysis. Lack of information about loan holders and do not pay back the loan and invest the loan in unproductive sector. Such kind of activities occurs continuously. If there is back of sound credit policy, implement sound credit policy. Loan approval and disbursement process should be conducted in better way. Proper credit analysis and regular supervision can control the credit risk.

Bhattarai (2002): In his article the start with words like NPA, conflict of interest, well connected defaulter, and political obstruction to describe the commercial banks in Nepal. Mr. Bhattarai quoted the words of the governor to describe the state of banking sector as 'terrible'. also, he quotes one of the donor representatives involved in financial reform as " Nepal has the weakest central bank in the developing world ." as per the author, bankers with patronage could get way with getting anything they wanted approval by the regulator. he quotes Mr. Himalayan SJB bank the first governor of NRB, " only 3 out of 12 governors actually compiled their five year terms in its entire history because they were sacked for undefined exigencies." he also quotes Mr. shaven dev pant, the then executive director of Nabil, " the financial sector is in appalling state."

Mr. Bhattarai says that all the evidences gathered for his article point to one direction the regulatory body, NRB not doing its job properly. He explains that malaise with the financial sector was deep. As an instance, he presents Nabil Bank and its ownership. He bets on the fact the even Nabil Bank shareholders do not know of the bank's owners of the major block of shares. The author experts NRB to disclose this fact if they know about it.

Another example Mr. Bhattarai presents is on the profitability of the banks in the very first year. He questions their profit figures with the given state of ailing economy, where each sector is showing heavy losses. Also the increasing trend of non-performing assets (NPAs) is explained by him is a result of scam. A scam process as explained to him by an NRB official goes like this." you put in rs.50 million to promote a bank and then borrow rs.500 million from it. They are not opening banks to do banking but to siphon loans for themselves. "However, the author is of a view that the new directives issued on oct. 2001 shall improve the situation.

Here, the author has not clearly mentioned of the research methodology. The conclusion is not well supported by data. The article reflects a one side's biased view of the author and the view of NRB on this has not been taken. The conclusion made by the author has not been tasted.

Mr. Ghimire (2003) article he has tried to highlight the effects of change of amendment in NRB directives regarding loan classification and loan loss provisioning. Although the circumstances leading of financial problem of crisis in many Nepali banks differ in many respects, what is a common acre most of the banks is the increased size of nonperforming assets. (NPAs), to resolve the problem the problem of the losses or likely losses of this nature facing the industry NRB has, as the central bank, amended several old directives and issued many new circulars in the recent years."

As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful and even loss categories, loan loss provisioning now compared to previous arrangement would be dramatically higher. The new classification and provisioning norms is very tent able as they to strengthen banks financially. He added that we also must remember that the old system remained in force from 1991 to 2001, which was probably the country. He has indicated that loan provisioning as a percentage of total credit of April12, 2001 is 5.2% but as April13, 2003, it has jumped to 18.39. If only private banks are the total increment in LLP is Rs. 11,328.11 million and the total increment in credit is only Rs. 7,976.70.he has also stated that tightening provisioning requirement on NPL is essential to ensure that banks remain liquid even during economic downturns.

In the conclusion he has mentioned that in the recent years NRB has worked for management and reform of the credit of the financial institution more seriously & NRB has adopted reform aimed not just at dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis. "All prudential directives of NRB in connection of credit sector reform have been made revised on some April 2001. To adapt to such changes there can be some difficulties & for a better & harmonized & also participative to take opinions of bankers for a charge in regulation / policy taking place in future."

Chhetri (2007), the writer has attempted to provide connotation of the term NPA and its potential sources, implication of NPA in financial sector in the South East Asian region. He has also given possible measures to contain NPA. "Loan and advance of financial intuitions are meant to be serviced either part of principal of the amount borrowed in stipulated time as agreed by the parties at the time of loan settlement. Since the date becomes past dues, the loan becomes non-performing asset. The book of the account with lending institution should be effectively operative by means of real transaction affected on the part of the debtors in order in order to remain loan performing."

As stated by the writer, the definition of NPA differs from country to country. In some of the developing countries of Asia pacific economic cooperation (APEC) forum, a loan is classified as non-performing only after it has been arrear for at least 6 months. Similarly, it is after three months, in India. Loans thus defaulted are classified into different categories having their differing implication on the assets management of financial institution. He also stated that NPAs are classified according to international practice into 3 categories namely substandard, doubtful and loss depending upon the temporal position of loan default. "Thus the degree of NPA assets depends solely on the length of time the assets has been in the form of non-obliged by the loaner. The more time it has elapsed the worse condition of assets is being perceived and such assets are treated accordingly. "As per Chhetri's view, failure of business for which loan was used, defective and below standard credit appraisal system credit programmed sponsored by government, slowdown in economy/recession, diversion of fund is some of the factors leading to accumulation of NPAs.

He said the there is serious implication of NPAs, on financial institutions. He further added that liability of credit institution does not limit to the amount declared as NPA

but extends to extra amount that required for provisioning depends upon the level of NPAs and their quality. As per his view, rising level of NPAs create a psyche of worse environment especially in the financial sector. He mentioned that by reviving the activities of the financial institution like waiving interest, rescheduling the loan, writing off the loan, appointing private recovery agent, taking help of tribunals and law of land, etc, NPAs can be reduced.

Finally he concluded that financial institutions are beset with the burden of mounting level of NPAs in developing countries." such assets do bar of income flow of the financial institution while claiming additional resources in the form of provisioning thereby hindering gain investment. rising level of NPAs cannot be taken as stimulus but the vigilance demanded to solve the problem like this, eventually will generate vigor to gear up the banking and financial activities in more active way contributing to energizing growth."

Shrestha (2004:11): The present credit policy with main focus of the credit decision being based on the collateral. He argues that only collateral should not be considered as the credit decision.

Access to finance is vital element for entrepreneurship development in the country. Without it one cannot think of starting business of any sort. It's mainly due to this reason; most of the students after completing their single mindedly look for employment opportunity. No other option, no matter how lucrative and attractive it would be enters into their mind. It has created huge pressure in the labor market. In the absence of entrepreneurial activities in the country, employment opportunity will be very limited and even qualified and competent people do not get job. The established notion of the Nepalese bankers that money lent to the wealthy people based on collateral is safe. But is not actually a safe assumption in the face of greater difficulty in loan recovery from these people. Also, this particular segment of market is already over- banked. With the worsening business performance of the Nepalese corporate sector mostly due to the poor management compounded by other factors sluggish economic conditions and political instability, banks must now explore newer market segment for their sustained growth and success. Under this backdrop, Nepalese commercial banks must change their policy and must understand that even the people living in the low and middle level of economic pyramid can potentially be lucrative

market. They can ignore them only at their peril, especially at the time when the competition in the market consisting of people at upper level of economic pyramid is very intense and had already saturated. In this context, potential entrepreneurs armed with skills, knowledge and readiness to take plunge in the business world can form a formidable market opportunity for the Nepalese banking industry – only if it can come out of the cocoon of traditional collateral-driven lending approach.

At the time when Nepalese banking is confronting with the increasing NPA, it might seem unwise and untimely to suggest that commercial banks extend loan to the potential entrepreneurs without collateral. It is not that they must ignore the collateral altogether while making credit decision. Collateral may be one of the important elements of the credit decisions. But this should not be a pre- condition for any credit decision. Lesson should be learned from the past experience of this credit policy that collateral alone does not ensure quality of credit decision. The fluctuation and stagnancy in the real estate business has further reinforced this view. More important, Nepalese bankers themselves must have to have entrepreneurship spirit which means, they should not hesitate to take educated risk by giving more weight to the entrepreneurship dimension of the credit proposals while making credit decision. The ability of lending is identifying and investing a distinct competitive advantage in the crowded market. However it's essential that any government rules and regulations that inhibit the promotion of entrepreneurship in the country must be abolished.

Entrepreneurship development is one of the important conditions for the economic growth of a country. There must be the sprout of entrepreneurship activities in the country for rapid economic growth and progress. However it does not happen automatically. We must create necessary condition and environment where people with skills, knowledge and hunger to make money by starting their own business can get easy access to capital.

The ordinance relating to banks and financial institution has been promulgated that has been brought into existence effective February 4, 2004. The banks and financial institution ordinance, 2004 has replaced the existing agriculture bank act, 2024 commercial bank act, development bank act and Nepal industrial development corporation act and finance companies acts and have brought all such institution under the preview of a single act. Thought this ordinance came as an achievement in the

financial sector reform program, its being a matter of debate among the various finance experts that the ordinance having six months existence time should be enacted? At this time since there is no parliament in the country and the parliament is authorized to enact permanent law. It is obvious that the financial sector must go through uncertainty in the future. The ordinance, popularly called as Umbrella Act.

Upadhyaya (2004), president of ICAN has clearly described the ordinance along with his views. The ordinance is comprehensive and prescribes in detail the provision for licensing, incorporation, government and merger and dissolution procedure for banks and financial institutions (FIs). This is a significant improvement over the existing Acts but apprehension is expressed about the discretionary power that the ordinance has vested on Nepal Rastra Bank (NRB).

Khatri(2004) has analyzed the ordinance pros and cons, in general speaking termed as Umbrella Act. He has expressed his disagreement in the ordinance in the ordinance regarding the qualification on the Board of director's composition. The qualification set is out of the total number of directors, two thirds have to be graduates in specified disciplines-management, commerce, economic, accounting, finance, law, banking and statistics. Another requirement is five years work experience either in banking or public limited companies or in a gazette level government posts. He argues why a science graduate or someone with engineering background cannot be the director, it is not justifiable to question on the capacities of the people with these background as the in the past some successful General Manager and Directors in Nepal Industrial Development Corporation (NIDC) were engineers. He further writes that activities like project financing and assets valuation require engineers and similarly that there cannot be any reason for the position of director in banks to be graduates in some specified fields only. CEO of the "ka" category qualification required is Masters Degree in the chosen few subject and the term would be four year. The act however does not mention the renewal of the CEOs term. The board or AGM of the institution should be decided the CEO's tenure.

Similarly, he points out argument in the requirement of five years work experience. The performance of the public limited companies is so poor that the efficiency of the staff is questionable. In such situation how can one hire some one with the experience in public limited companies? As per the act, it is mandatory to appoint a professional director in

the board chosen from the list of professional experts enlisted by NRB. Such director will not have voting right; it is questionable that can he contribute significantly towards the development of a bank or financial institution without the voting right?

For the existing banks other financials a two-year period has been granted to apply for the license. Entirely new Memorandum of Association and Articles of Association have to be prepared and a special general meeting of shareholder has to be called. If any institution fails to obtain the license on the said period their license will be seized. However, there is no clear information on whether the institutions can prepare Memorandum of Articles in their own format or are there any prescribed format available or will be made available by the central bank-Nepal Rastra Bank for this purpose.

This ordinance has given NRB full authority for monitoring, inspection, supervision etc. NRB is vested with the power to fix interest rates in lending and deposits and themselves. However, such delegated authority can be taken bank. This makes banking more risky; it indicates that NRB is interest to take control on fixation of interest rates as when required.

The ordinance relating to banks and financial institution has been promulgated that has been brought into existence effective February 4, 2004. The banks and financial institution ordinance, 2004 has replaced the existing agriculture bank act, 2024 commercial bank act, development bank act and Nepal industrial development corporation act and finance companies acts and have brought all such institution under the preview of a single act. Thought this ordinance came as an achievement in the financial sector reform program, its being a matter of debate among the various finance experts that the ordinance having six months existence time should be enacted? At this time since there is no parliament in the country and the parliament is authorized to enact permanent law. It is obvious that the financial sector must go through uncertainty in the future. The ordinance, popularly called as Umbrella Act.

Shrestha (1998) in her article has presented with the objectives to make an analysis of contribution of commercial banks lending to the GDP of Nepal. She has set hypothesis that there has been positive impact of commercial banks to the GDP. In research methodology, she has considered GDP as the dependent variable and various sectors of

lending viz agriculture, industrial, commercial, service and social sector as independent variable. A multiple regression technique has been applied to analyze the contribution.

The multiple analyses have shown that all the variables except service sector lending have positive impact on GDP. Thus in conclusion she has accepted the hypothesis i.e. there has been positive impact on GDP.

Karki (2000) has summarized, according to the article, “the financial sector is facing the major challenges of high NPA of banking sector, which comes around 18 percent of the total loan but if the loan classification, is made according to least international practice. It is assumed to exceed 30 percent. Credit demand is being met largely by non-institutional source i.e. private money lender, merchant, trader and landlord at very high rate of interest which is 2 to 3 times higher than that of institutional rate. This shows that unrecognized financial sector is playing a major role in the Nepalese economy. The liquidity position of the sector is rated as high as 24 percent, but the productive sector of the economy is starved by credit crunch. This is a paradoxical situation in the banking sector.

He has mentioned the following suggestions to remedy the current malady. The financial institutions especially commercial banks have to identify new area of investment to increase loan and advances in reducing the liquidity position. With the rapid growth in the number of banks and financial institutions, deposit insurance scheme is a must. The principle reason for introducing such deposit insurance is one of the social justices rather than economic justification in order to protect the interest of the small depositors. In this condition, this scheme should be expedited to implement.

Pradhan (2001) in the article, it has the potential to cause systematic crisis. He has mentioned that a dream of globalization led to huge investment, which unfortunately could not be utilized properly due to hesitant liberalization policies. Large corporate misused the credits and delayed payments and contributed indirectly for enhancing NPA ratio. He further argues that lack of vision in appraisal of proposal while loan sanctioning, reviewing or enhancing credit limits, absence of risk management policy of financing, concentration of credit in few group of parties and sector, lack of coordination among various financiers, lack of initiatives to take timely action against willful defaulters, indecision on existing out of bad loans for fear of investigating agencies like special police, public accounts committee of the parliament have also

contributed in whatsoever measures to the worsening situation of NPA front. He further pointed out that most crucial reason for the increase in the NPA is the shabby and defaulter friendly legal system. Suggesting the remedy of NPA he adds that administrative system should be strengthened, legal reforms should be made and assets Reconstruction Company should be formed.

2.3 Review of related thesis:

Regmi (2004) conducted a study as the:

- To determine impact of deposit in liquidity and its effect on lending practices.
- To know the volume of contribution made by both bank in lending.
- To examine lending efficiency and its contribution in profit.
- To analyze trend of deposit utilization towards loan and advances and net profit and their projection for next five years.

The major findings of this study are:

The ratio of credit to government enterprises of to total of NBBL is higher than of NSBL. The mean ratio of credit total bills paid and discount to total credit ratio of NBBL is higher than that of NSBL. NSBL has contributed 95.91% in private sector loan, 2.51% in government sector loan and 1.56% in bills paid and discounts. Likewise NBBL has contributed 90.83% in private sector loan, 4.29% in government sector and 4.84% in bills paid and discounts. Among the various measurement of profitability ratio return on equity (ROE) and earning per share (share) reflects the relative measure of profitability. The performance of NBBL is better than NSBL. Return on equity and earning per share of NBBL are higher than that of NSBL in all years. Co- efficient of correlation between deposit and loans & advances of both banks has positive value. Also co-efficient of correlation between total income and loans & advances of both banks have positive relation. Coefficient of correlation between net profit and loans & advances of NSBL is negative as other variables like interest suspense and loan loss provision affects net profit. Coefficient between net profit and loans & advances of NBBL is positive. Trend analysis of total deposit of NSBL and NBBL are found in increasing trend. The increment ratio on deposit of NSBL is lower in comparison to NBBL.

Shrestha(2003), the study covers only a period of five years from the fiscal year ended 7/15/1999 to 7/15/2003 & conclusion drawn confines only to the above period. The main objectives are

- The study aims to analysis the effectiveness of credit policy of SBI bank.
- To measure the credit performance in quality, efficiency & contribution of profitability.
- To study the liquidity position, the impact of deposit in liquidity & its effects on credit performance.
- To measure the growth rate and propensity of growth based on trend analysis.

The major findings are:

This chapter focuses on the major finding from analysis of Nepal SBI Bank Limited from the year 1999 to 2003.

Growth ratio:

- Growth rate of total deposit of NSBI by analysis of 5 year period of NSBI has improved the deposit liability by 10.4684% during the period of study.
- Growth ratio of loans & advances of NSBI is i.e. 79.30%. There is an increase in loans and advances of NSBI. During its study period it has a significant growth & explains its aggressiveness.
- Growth ratio of investment of NSBI is in increasing trend. During the study period a significant growth of 77.5892% suggest the bank's aggressiveness. Growth rate of net profit of NSBI under the five- year study period is 30.5751%. It has highest profit of Rs.50.07 million in the 2000. It has also increasing trend of profit with fluctuation over the study period.
- Correlation coefficient between total income & loan & advances of NSBI shows positive relationship between these two variables. Further the coefficient of correlation is highly greater than the value of 6*P.E r. there the value of 'r' is significant.

- Correlation coefficient of interest income net profit of NSBI shows low degree of correlation. It is also not significant & the relation between these two variables is not certain, as the value of 'r' is less than 6 times of P.E. r (i.e. lower than 6*P.E).
- Trend analysis of loan & advances to total deposit ratio of Nepal SBI Bank Limited shows increasing trend. The analysis concludes the good performance of NSBI in deposit utilization in relation to loan & advances.
- Trend analysis of total investment to deposit ratio of NSBI shows increasing trend. The increasing trend of investment & total deposit ratio shows the good performance of the selected bank of investing the deposits in profit earning sectors.

Chand (1988), the study covers a period of five years. The main objectives are of this thesis:

- To see the repayment situation.
- To find out the rate of growth of investment.
- To explain possible causes of non-and delayed repayment.

Major finding are:

There is systematic relationship between credit disbursement and repayment. The coefficient of correlation value as calculated is 0.94 which shows significance relationship. Repayment situation is satisfactory on production inputs and agro-based industry, warehouses and marketing percentage of repayment to due to the farm mechanization and irrigation and tea horticulture and livestock, poultry & fisheries in much less satisfactory. As a recommendation given by Chand, ADB should play a significant role in such direction as to fulfill the credit demands of rural areas. For effective credit recovery from the borrowers or clients, credit should be channeled through the borrower groups.

Pokhrel (2009) conducted a study as the:

In this thesis, the objectives are:

- To evaluated & analyzed the credit management process & practices of commercial banks.
- To examine the credit & advances provide by the banks.
- To analyze the recovery status of the credit.
- To find out the strength & weakness in the credit process of the banks.

- To suggest & recommendation on the basis of major finding.

Major finding are:

Banks couldn't do better by offering modern banking facilities & new product for the development of banking industry. Provision on bad loan should be maintained as per the directives of Nepal Rastra Bank. RBB & NBL should be more exercise in credit creation & maintaining the effective competitive interest rate for the loan & advances. This helps them to maintain more competitive in the growing banking industry of the country. These banks should be focus for non funded facility for its less risky business with for good income. These banks should be taken the prompt corrective action for strengthening its business capacity.

Ojha (2004) conducted a study as the:

In this thesis the main objectives are:

- To determine the liquidity position, the impact of deposit in liquidity and its effect on; lending practices.
- To measure the bank's lending strength.
- To analyze the portfolio behavior of lending and measuring the ration & volume of loans and advances made in agriculture, priority & productive sector.
- To measure the lending performance in quality, efficiency and its contribution in total income.

The major findings of the study are:

The measurement of liquidity has revealed that the mean current ratio of all the three banks is not widely varied. All of them are capable in discharging their current liability by current assets. The measurement of lending strength in relating terms has revealed that the total liability to total assets of SCBNL has the highest ratio. The high ratio is the result of high volume of shareholders equity in the liability mix. Himalayan bank ltd. has high volume of saving and fixed deposits to compare to current deposit resulting

into low ratio of non-interest bearing deposits to total deposits ratio compared to the combined mean. The loan advances, & investment to deposit ratio has shown that NABIL Bank Ltd. has developed the highest proportion of its total deposits in earning activities. This is the indicative of that in fund mobilizing activities NABIL Bank Ltd. is significantly better. The lending in commercial purpose is higher in case of NABIL Bank Ltd. and least in case of SCBNL has highest contribution in service sector lending. It has contributed 25.47% of its total credit in general use and social purpose. The ratio of investment to investment & loan and advances has measured the total portion of investment in total of investment and loans and advances. The ratio among the banks does not have deviated significantly.

Regmi(2004), the study covers a period only five years. The main objectives are:

General objective

- a. financial analysis
- b. organizational analysis
- c. personal analysis
- d. To highlight the review of previous studies

B. specific objectives

- a. To analyze the functions, objectives, procedures & activities of the NB Bank & BOK.
- b. To analyze the credit & advances providing the two Banks.
- c. To analyze the recovery status of the credit disbursed.
- d. To find out the strength & weakness in the credit administration of the two Banks.
- e. To give suitable recommendation & suggestions for improvement of present performance conditions & solution of different problems.

Major finding are:

- On average of 5 years of research period cash & bank balance to total deposit ratio of NB Bank & BOK is 12.75% & 14.12% respectively. Likewise NB has cash & bank balance 1.584 times of current deposits & BOK has cash & bank balance 1.14 times of current deposits.
- Bank's most of the credit is granted on the basis of assets guarantee. Assets includes land, machinery furniture etc. It covers almost 75% of the total credit. After assets credit are

issued on the basis of bills guarantee. Due to liberalization, the non – government securities are increasing. Therefore bank's granting credit on non – government securities is higher than government securities.

- Credit & advances have been issued in different sectors by the banks. private sector are the major sector that covers around 76% of the NB Bank & the some field cover 95% in the BOK, Banks has not issued credit & advances so much in the foreign companies.
- Test the hypothesis shows that there is no significance difference in credit management of the banks (NB& BOK). But in case of provision for credit loss, there is significance difference between two banks.

Pokhrel (2008), the secondary data analysis covers time span of current five years. In this thesis, the main objectives are:

- To study the credit practices of selected commercial banks of Nepal.
- To explore the credit efficiency of selected commercial banks of Nepal.
- To examine the industry environment & quality of commercial banks in term of credit practices.
- To explore the relationship between net profit & loan & advances, loan & advances & non – performing loan of selected commercial banks of Nepal.
- To explore the impact of loan & advances on net profit, non-performing loan & performing loan on net profit of the commercial banks of Nepal.

Major findings are:

- The correlation coefficient between loan & net profit of selected banks were fund 0.983, 0.996 & 0.976. It indicates that there was highly positive relationship between loan and net profit of the selected banks. In the same way, correlation coefficient of loan & non – performing loan were found to be 0.712, 0.970 & -0.807 in NABIL, NIBL & HBL respectively. That means increasing volume of loan increasing volume of loan increases non-performing loan at higher level in NIBL while the trend of increasing volume of loan decreases the non –performing loan at high level in NABIL & HBL during the study period.
- A credit practice of NIBL was found relatively better than NABIL & HBL during the study period. It is suggested to other two banks management for better improvement.

Similarly, interest income from loan & advances was found greater in HBL. The main source of income is based on loan & advances. Thus, proper level of portfolio should be maintained so that profitability position will be maximized.

- In spite of having positive industrial environment & management quality for all selected banks, it is suggested to maintain its level in high in terms of credit management so that the bank credit management would be further more effective in future.

khanal (2008),the study covers only five years since 2003 to 2008. The main objectives are:

- To analyze the functions, procedures & activities of commercial banks credit policy.
- To analyze the credit & advances provided by the commercial banks.
- To analyze the recovery status of the credit disbursed.
- To find out the strength & weakness in the credit administration of the commercial banks.

Major findings are:

The average interest income to loan & advances of the NIB is 0.05. Ratio of NIB doesn't show clear direction. Average interest income to loan & advances ratio of NIC is 0.0041 & in terms of the average ratio NIB has best performance. Correlation coefficient between non- performing loan & loans of NIB is -0.666, which shows moderate, negative correlation. It indicates that non-performing loans & loans were moderately negative related with each other. That means, decreasingly on performance in loans management. Effectively loans management helps to decrease the non-performing loans. Least square trend line shows the loan & advance of NIB have been increasing with a constant growth rate. Based in analysis presented table that concludes loan & advances has been increasing by 909.57 million on financial year 2009. Least square trend lines show the loan & advances of NIC have been increasing with a constant growth rate.

Nepal (2008), the secondary analysis covers times span & current five year. The main objectives are:

- To assets credit practices of selected Nepalese commercial banks.

- To explore the credit efficiency of selected Nepalese commercial banks.
- To analyze the industry environment of selected Nepalese commercial banks in terms of credit practices.
- To examine the management quality of selected Nepalese commercial bank in term of credit practices.
- To explore the relation with loan & advances, non-performing loan & net profit of selected Nepalese commercial banks.
- To recommend the concerned for the betterment based on major finding of the study.

Major findings are:

There is systematic relationship between credit disbursement & repayment. The coefficient of correlation value as calculated is 0.94 which shows significance relationship. Repayment situation is satisfactory on production & agro-based, industry, warehouses & farm mechanization, irrigation, tea horticulture livestock, poultry & fisheries is less satisfactory. As recommendation given by chard, ADB/N should play a significant role in such direction as to fulfill the credit demands of rural areas for effective credit recovery from the borrowers or clients, credit should be channeled through the borrower groups .Primary information indicated that the industry environment was found positive in selected banks. Likewise management quality was also good in the selected banks. In the same way, analysis of variance indicated that most of the items designed for the study were not found significant difference at 0.01 levels of significance.

Yadhav (2008), whole study is based on data of five years period. The main objectives are:

- To examine sector wise loans & advances of selected commercial banks.
- To evaluated priority & deprived sector loans of selected commercial banks.
- To evaluate status of non- performing loans of selected commercial banks.

Major finding of the study:

- HBL is safe from the side of liquidity similarly SBI & NBL would be in liquidity crunch if heavy demand is made (withdrawal) from the depositions.
- NBL has higher loan loss provision. SBI & HBL has more or less same ratio.
- CBs are trying to lower the NPL then past however ratio of NBL is higher then other.
- Deprived sector credit ratio of NBL is higher enough then other two CBs.
- HBL & SBI are losing the operating profit after 2008. However NBL is in increasing trend.
- Interest income to loan & advances of NBL, HBL has increasing trend after 2008 but the SBI has decreasing trend.

2.4 Research Gap:

Looking at there all studies it shows that limited studies have been conducted in the area of comparative study of credit management between these two banks. So it is expected that this study will contribute significant role in this area. Hence this study for on the policy and management of credit in these two banks.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction:

The word research is composed of two syllables, re and search. Re is a prefix meaning again, anew or over again Search is a verb meaning to examine closely and carefully, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles.

Research is structural enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable. In simple words, research means to search or study about a phenomenon. The term research is search again and again is called research. Research is the systematic and organized effort to investigate a specific problem that needs a solution. This process of invitation involves a series of well thought out activities of gathering, recording, analyzing and interpreting the data with a purpose of findings answers to the problem. So research is an ongoing and ever-growing activity.

Research methodology is the research method used through the entire study to solve the research problems with certain objectives in view. The research methodology is comprised of

tools and techniques used to analyze the data as well as logic behind their application. Research Methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It is study of various steps that is generally adopted by a researcher, studying his research problem along with the logic behind them. “Research is the process of systematic and in-depth collection, presentation and interpretation of relevant detail or data” (*Michael; 1985:57*).

The basic framework of this study is descriptive as well as exploratory. In order to reach and accomplish the objective of this study, different activities are carried out & different stages are crossed during the study period. For this purpose, the chapter aims to present and reflect the methods & techniques those are carried out & followed during the study period.

3.1.2 Research Design:

Research Design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions & to control variances. Types of research design are follows:

- i. conventional research
- ii. historical research
- iii. action research
- iv. descriptive research
- v. development research
- vi. field study research
- vii. true- experimental research

Basically this study based on descriptive and analytical research design for fact finding and comparative analysis of data. This study also will be based on recent historical data. Mostly, secondary data & information to be collected, evaluated, verified & synthesized to reach a conclusion. To achieve the objective of this study descriptive data different journals & articles relevant with the study, annual reports of different fiscal years of concerned banks, NRB Directives; banking & financial statistics reports published by

NRB & other related material are collected & studied. With the help of descriptor & research design, the study evaluates the credit management of commercial banks.

3.1.3 Population and Sample:

There are altogether 33 commercial banks functioning all over the country at present, which are taken as a population of this study work. Among them, this study comprises only two commercial banks namely; Bank of Katmandu Ltd. & Nepal Investment Bank Ltd. which has been selected as a sample by using random sampling method for this study.

3.1.4. Sources of Data:

This study is mainly based on secondary data. Secondary data are collected from respective annual report. Similarly, articles, journals, bank bulletins, newspaper related to financial performance study, previous research report etc, have also been taken into account while collecting information.

3.1.5 Methods of Data Analysis:

Mainly financial methods are applied for the purpose of this study. Appropriate statistical tools are also used. Among them correlation analysis regarded as major one is used for this research.

To make the study more specific and reliable, the researcher uses two types of tool for analysis:

- i. **Financial Tools**
- ii. **Statistical Tools**

3.1.6 Financial tools:

Financial tools are used to examine the financial strength & weakness of the bank. In this study, following financial tools are used:

A. Loan classification & provisioning:

The amount of loans in the various categories has been calculated by using the models of NRB likewise for each category, the actual loan loss provisioning amount has also been calculated according to the directions laid down by NRB.

B. Activity/Efficiency Ratio:

It is also known as turnover or efficiency ratio or assets management ratio; measures how efficiently the firm employs the assets. Turnover means; how many numbers of times the assets flow through a firm's operations and into sales (*Kulkarni; 1994: 138*). Greater rate of turnover or conversion indicates more efficiency of a firm in managing and utilizing its assets, being other things equal. Various ratios are examined under this heading.

i. Loan & Advances to Total Deposit Ratio = $\frac{\text{Loan \& Advance}}{\text{Total Deposit}}$

ii. Loan & Advances to Total Assets Ratio = $\frac{\text{Loan \& Advance}}{\text{Total Assets}}$

iii. Total Investment to Total Deposit Ratio = $\frac{\text{Total Investment}}{\text{Total Deposit}}$

C. Profitability Ratios:

Profit is the difference between revenues and expenses over a period of time. A company should earn profit to survive and to grow over a long period of time.

So profits are essential, but profit earning is not the ultimate aim of company and it should never be earned at the cost of employees, customer and society.

Profitability ratios are the indicators of degree of managerial success in achieving firm's overall goals (*Pradhan; 1996: 41*). It shows the overall efficiency of the business concern.

The following ratios are calculated under the profitability ratios:

i. Return on Loan & Advances = $\frac{\text{Net Profit}}{\text{Loan \& Advances}}$

ii. Net Profit/Loss to Total Assets Ratio = $\frac{\text{Net Profit}}{\text{Total Assets}}$

$$\text{iii. Interest Income to Total Loan \& Advances Ratio} = \frac{\text{Interest Income}}{\text{Total Loan \& Advances}}$$

D. Lending Efficiency Ratio:

The efficiency of a firm depends to a large extent on the efficiency with which its assets are managed and utilized. This ratio is concerned with measuring the efficiency of bank. This ratio also shows the utility of available fund. The following are the various type of lending efficiency ratios:

$$\text{i. Non-performing Loan to Total Loan \& Advances} = \frac{\text{Non-performing Loan}}{\text{Total Loan \& Advances}}$$

$$\text{ii. Loan Loss Provision to Total Loan \& Advances} = \frac{\text{Loan Loss Provision}}{\text{Total Loan \& Advances}}$$

3.1.6 Statistical Tools:

Several numbers of statistical tools can be employed to examine the financial data of NIBL & BOK. Some of the statistical tools that are used for the purpose of this study are presented below;

i. Arithmetic Mean:

Most of the times when we refer to the "average" of something, we are talking about its arithmetic mean. To find out the arithmetic mean, we sum the values & divide by the number of observations. The mean can be calculated as;

$$\bar{X} = \frac{\sum X}{N}$$

Where,

N = Number of elements in the sample

$\sum X$ = Sum of values of all observations

ii. Standard deviation:

The standard deviation is the square root of the average of the squared distances of the observations from the mean. It enables us to determine, with a great accuracy, where the values of a frequency distribution are located in relation to the mean. To compute the sample standard deviation, we use the following formula;

$$\text{S.D. } (\sigma) = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

Where,

σ = Standard Deviation

S.D. = Standard deviation

X = Value of each of the n observation

\bar{X} = mean of the sample

iii. Karl Pearson's Correlation Coefficient :

The Karl Pearson's correlation coefficient is one of the widely used mathematical methods of calculating the correlation or relationship between two different variables. This method summary in one figures the degree of relationship as well as direction. It is simply denoted by "r" & it can be calculated by using the following formula;

$$\text{Correlation Coefficient (Simply, } r) = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum x^2 - (\sum X)^2] [n \sum Y^2 - (\sum Y)^2]}}$$

CHAPTER- IV

PRESENTATION AND ANALYSIS OF DATA

Presentation and analysis of data is very important stage of research study. Its main purpose is to change the tabulating and placing that data in presentable form by using various tables, figures and sources.

Credit management is one of the most important factors that have been developed to facilitate effective performance of bank management. Credit management is the formal expression of the commercial banks goals and objectives stated in financial term for specific future period of time. Credit is the basic indicator for determining profit.

The main purpose of the objective is to assess the credit management in selected commercial banks. Present chapter will discuss the various aspects of credit management and their actual accomplishment. Actually, credit management is a fundamental managerial tool, which is applied in commercial banks. For this respect, it will analyze the data by using various financial and statistical tools to meet the stated objectives of the study. It also compares the

data between selected banks. Besides, it also presents the various funding generated from data analysis.

4.1 Financial Conditions of Selected Nepalese Commercial Banks:

Financial analysis assists in identifying the major strengths and weakness firm. It indicates whether a company has enough cash to meet its obligations ability to utilize properly their available resources. Financial analysis can also to assess the company's liability as an ongoing enterprise and determine whether a satisfactory return is being earned for the risks return. The necessary to find out comparative financial condition of the banks in terms of credit necessary to find out the comparative credit practices in those banks.

For research purpose, financial condition of both the banks in terms of credit practices, credit efficiency has analyzed the comparative credit position selected commercial banks.

4.2 Credit Practices in Bank of Kathmandu and Nepal Investment Bank:

Credit practices show lending policies and practices adopted by the selected commercial banks during the study period. It measures the ability of the organization in terms of credit practices by using historical data.

4.2.1 Assets Management Ratio:

This ratio measures the efficiency of commercial bank in its fund mobilization. A commercial bank must be able to manage its assets properly to earn high profit, maintaining the appropriate level of liquidity. Assets management ratio measures the efficiency of bank to manage its assets in profitable way satisfactorily. Help of the following ratios have analyzed asset management ability of NIBL as well as BOK.

4.2.2 Total Loans to Deposit Ratio:

The main source of bank's lending depends on its deposit. This ratio is calculated to find out how successfully the banks are utilizing their deposits on loan and advances for profit

generation activities greater ratio indicates the better utilization of total deposits. The ratios are presented in the following table.

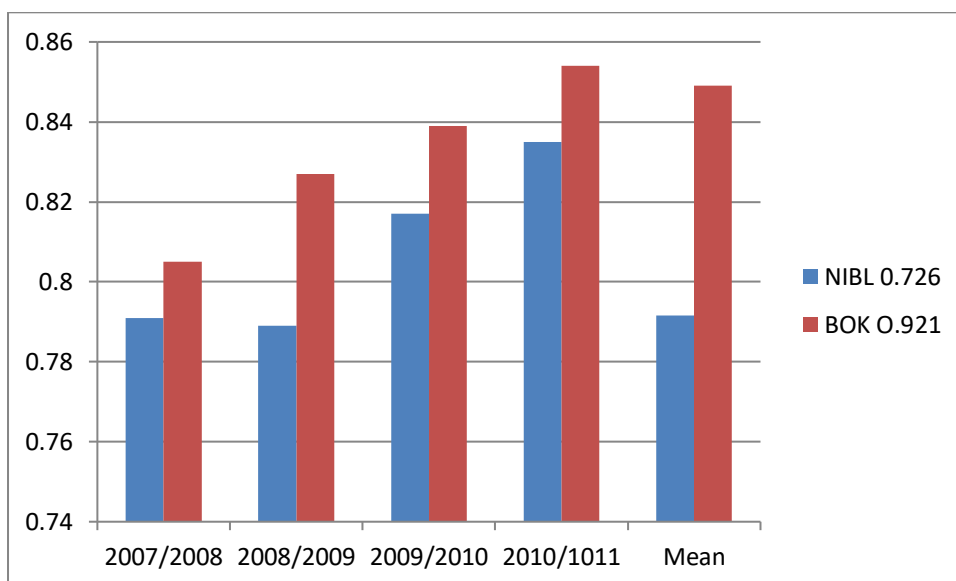
The ratio is calculated by following formulas.

$$\text{Total loan and deposit ratio} = \frac{\text{Total Loan}}{\text{Total Deposit}}$$

Table 4.1
Total Loans of Deposit Ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/1011	Mean
NIBL	0.726	0.791	0.789	0.817	0.835	0.7916
BOK	0.921	0.805	0.827	0.839	0.854	0.8491

Figure 4.1
Total Loans of Deposit Ratio



The table 4.1 and figure 4.1 shows that the ratio of credit deposit ratio in NIBL was 0.7256, 0.791, 0.7886, 0.8174 and 0.8354 in the fiscal year 2006/2007 to fiscal year 2010/1011 respectively. Similarly the ratio of BOK was 0.9205, 0.8051, 0.8265, 0.8390 and 0.8543. In overall comparison, BOK has the highest ratio 2006/2007 i.e.0.9205 and NIBL has observed the lowest ratio in the same year with 0.7256.

From the analysis, we can say that BOK is in good form according to deposit mobilization point of view than NIBL. But it does not mean that BOK is investing more of its collected fund in high return but with low risk sector than NIBL. As well, lending ratios are very low than collection ratios over the study period. From this point of view, loan & advance to total deposit ratios of the banks are not so good but satisfactory.

4.2.3 Total Investment to Total Deposit Ratio:

A commercial bank may mobilize its deposit by investing in different securities issued by government and other financial and non-financial organizations. This ratio measures the extent to which banks are able to mobilize their deposits on investment in various securities. In the process of management of bank assets, various factors such as excess availability of fund, liquidity requirement, central banks norms etc. are to be considered in general.

This ratio indicates the proportion of deposits utilized for the purpose of income generation as well as for maintaining liquidity in appropriate level. A high ratio is the indicator of high success of mobilizes deposits in securities and vice-versa.

This ratio is calculated by following formulas.

$$\text{Total Investment to Total Deposit} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

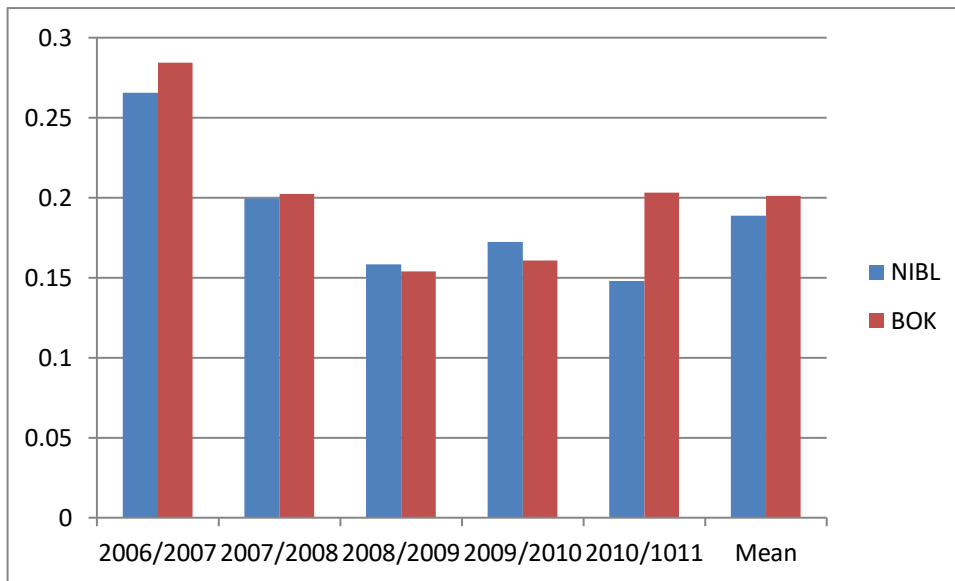
Table 4.2

Total investment to total deposit ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/1011	Mean
NIBL	0.2656	0.1997	0.1585	0.1724	0.1481	0.1889
BOK	0.2844	0.2025	0.1541	0.1609	0.2033	0.2010

Figure 4.2

Total investment to total deposit ratio



Above table and figure no 4.2 shows that the ratio is in fluctuation trend of NIBL and BOK. The ratio is lowest in fiscal year 2010/2011 (0.1481) and highest in fiscal year 2006/2007 (0.2656) and mean ratio is 0.1889 for NIBL. BOK ratio is lowest in the fiscal year 2008/2009 (0.1541) and highest in the fiscal year 2006/2007 (0.2844) and mean ratio is 0.2010. and BOK has higher mean ratio than that of NIBL

During the study period, movements of ratios are first increasing, then decreasing and again increasing. It may be due to slack in the different sectors of economy banks are unable to mobilize its fund in loan & advances and share/debenture of other companies properly.

4.2.4 Loan and Advance to Total Assets Ratio:

Loan and advance is the major part of total assets for the bank. This ratio indicates the volume of loans and advance out of the total assets. A high degree of the ratio indicates that the bank has been able to mobilize its fund through lending function. However lending always carries a certain risk of default. Therefore a high ratio represents low liquidity and low ratio represents low productivity with high degree for safety in terms of liquidity.

This ratio is calculated by following formulas.

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

Table 4.3

Loan and Advance to Total Assets Ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.644	0.708	0.695	0.715	0.718	0.6960
BOK	0.665	0.719	0.729	0.729	0.725	0.7135

Figure 4.3

Loan and Advance to Total Assets Ratio

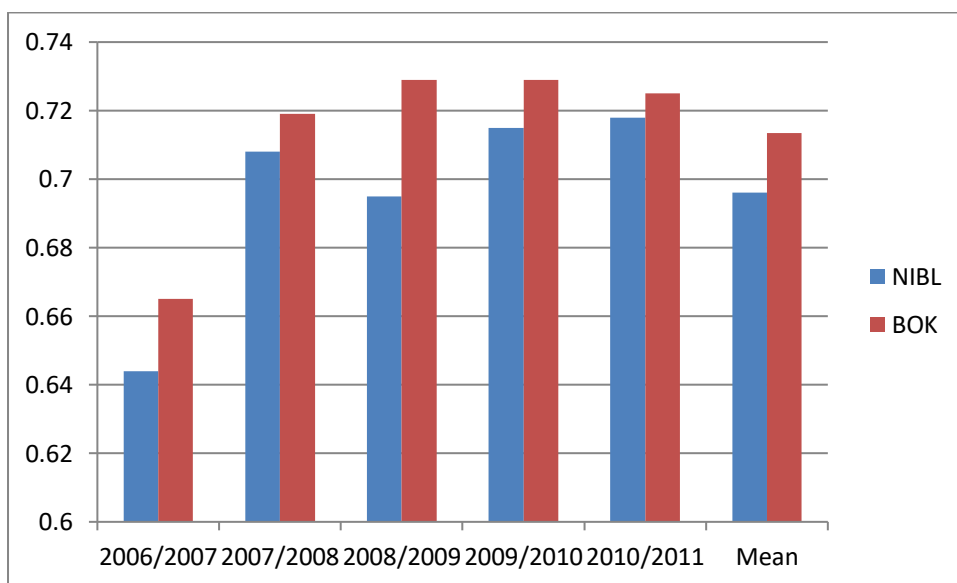


Table and figure 4.3 shows the ratio of loans and advance to total assets in five years for the selected companies. Loans and advances to total assets of NIBL ranges the highest of 0.7178 in the fiscal year 2010/2011 and the lowest in the fiscal year 2006/2007 is 0.6440 . Ratio of BOK is highest of 0.7292 in the fiscal year 2008/2009 and the lowest in the fiscal year 2006/2007 is 0.6653. From the mean point of view, it can be said that mean ratio BOK has highest than NIBL. It can be concluded that higher the mean ratio it indicates good lending performance. Here NIBL should focus to increase loan and advances to total assets ratio to increase lending performance.

4.3 Credit Efficiency in Bank of Kathmandu and Nepal Investment Bank Limited:

It measures the effectiveness or activity of the company through establishing the relationship between the various assets and credit of that respective organization.

4.3.1 Interest Expenses to Total Deposit Ratio:

This ratio measures the percentage of total interest paid against total deposit. A high ratio indicates higher interest expenses on total deposit. Commercial banks are dependent upon its ability to generate cheaper fund has moves the probability of generating loans and advances and vice versa.

This ratio is calculated by following formulas.

$$\text{Interest Expenses to Total Deposit Ratio} = \frac{\text{Interest Expenses}}{\text{Total Deposits}}$$

Table 4.4

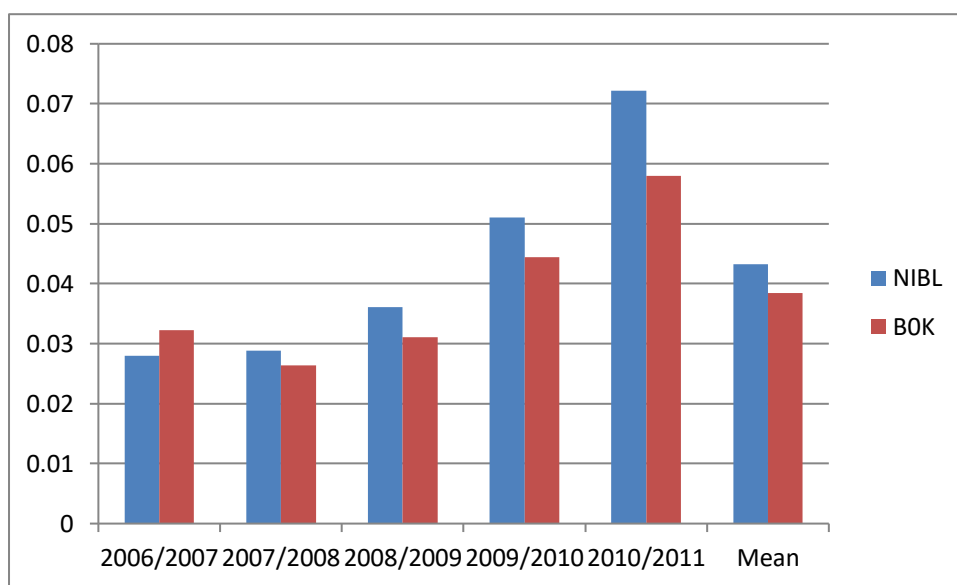
Interest Expenses to Total Deposit Ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean

NIBL	0.0280	0.0288	0.0361	0.0510	0.0722	0.0432
BOK	0.0322	0.0264	0.0311	0.0444	0.0580	0.0384

Figure 4.4

Interest Expenses to Total Deposit Ratio



Above the table and figure 4.4 shows the cost of deposit of selected banks over the study period. The ratio of NIBL ranges highest 0.0722 in the fiscal year 2010/11 and lowest 0.0280 in the fiscal year 2006/07. Mean ratio is 0.0432. Ratio of BOK ranges highest 0.0580 in the fiscal year 2010/11 and lowest 0.0264 in the fiscal year 2007/08. Mean ratio is 0.0384. Similarly here average interest expenses to total deposit ratio of BOK than higher than of NIBL ratio. Higher ratio indicates the increased cost of deposit. NIBL is able to collect the cheaper deposit than that of BOK.

4.3.2 Non – Interest Bearing Deposits to Total Deposit Ratio:

The ratio measures the volume of non- interest bearing deposits to total deposit. The volume on f interest expenses in total represents a large portion of the total expenses. How efficiently the deposits were managed affectively in the total volume of expenses. The higher ratio is favorable but in practices, interest bearing deposits always plays a significant role in the mix of deposit liability.

Table 4.5

Non – Interest Bearing Deposits to Total Deposit Ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.1040	0.1087	0.0960	0.0959	0.0938	0.0996
BOK	0.1764	0.1476	0.1397	0.1533	0.1262	0.1486

Figure 4.5

Non – Interest Bearing Deposits to Total Deposit Ratio

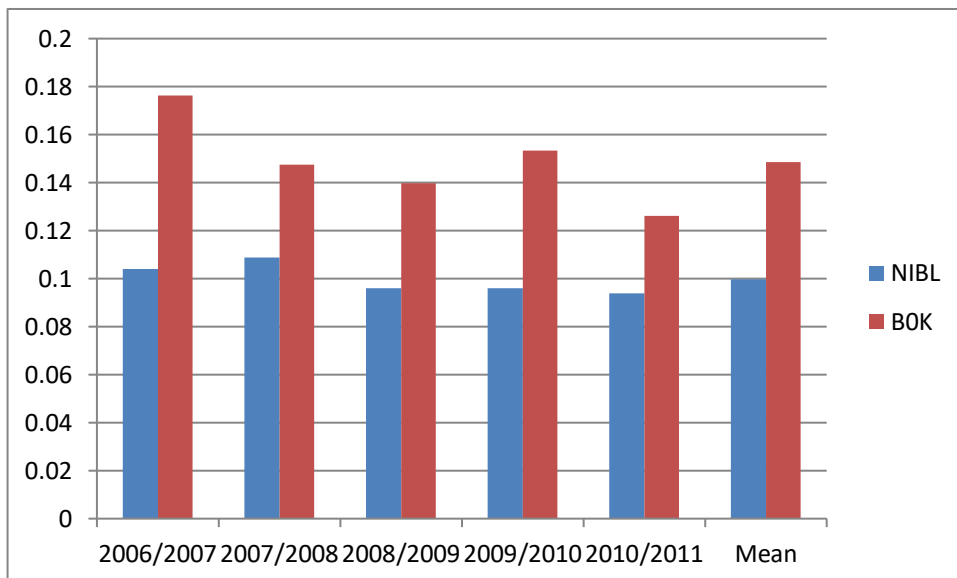


Table and figure 4.5 shows that Ratio of NIBL ranges of highest 0.10876 in the fiscal year 2007/08 and lowest 0.0938 in the fiscal year 2010/11. Average ratio is 0.0996. As well as ratio of BOK fluctuating trend, BOK ranges of highest 0.1764 in the fiscal year 2006/07 and lowest 0.1262 in the fiscal year 2010/11. Average ratio is 0.1486.

From the mean point of view, it can be said that BOK has highest mean ratio. In this way, the deposit mixture of BOK carries the highest level of interest bearing deposits in its deposit mixture. This major portion of non – interest bearing deposit consists of current deposits and this deposit is particularly maintained by business enterprises.

4.4 Profitability Ratio:

Profitability ratios are very helpful to measure the overall operation efficiency of a financial institution. In the context of banks, no bank can survive without profit. Profit is one of the major indicators or efficient operation of a bank. The banks acquire profit by providing different services to its customers or by providing loan & advances and making various kinds of investment opportunities. Profitability ratios measure the efficiency of bank. A higher profit ratio shows the higher efficiency of a bank. The following ratios are under the profitability ratio. Profitability ratio measures how effectively the companies manage its fund to earn profit.

4.4.1 Net Profit to Total Deposit Ratio:

This ratio is calculated by using following formula.

$$\text{Net profit to total deposit ratio} = \frac{\text{Net profit}}{\text{Total Deposit}}$$

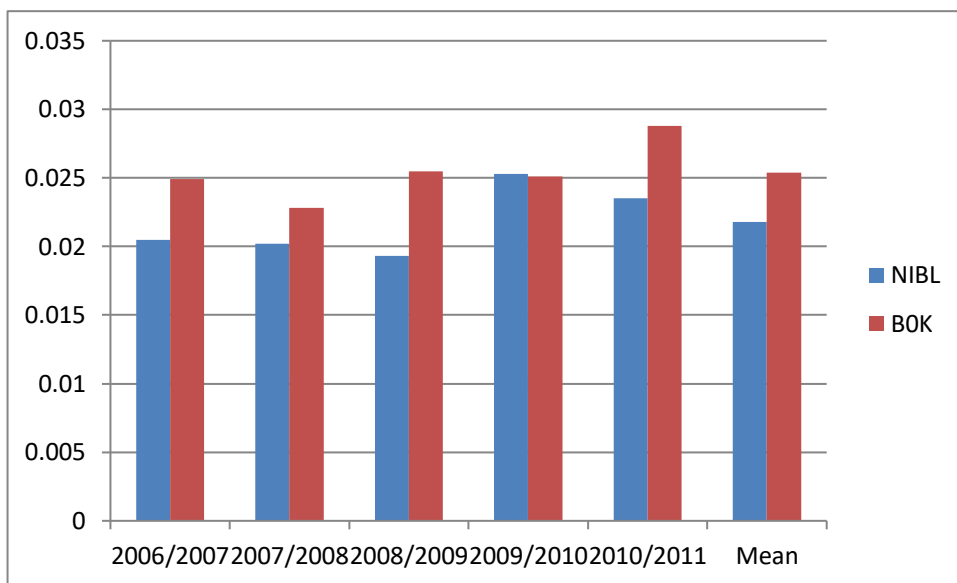
Table 4.6

Net profit to total deposit ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.0205	0.0202	0.0193	0.0253	0.0235	0.0218
BOK	0.0249	0.0228	0.0255	0.0251	0.0288	0.0254

Figure 4.6

Net profit to total deposit ratio



It shows that the ratio is in fluctuating NIBL ratio has raised from 1.93 % (2008/09) to 2.53 % (2009/10). Similarly BOK has ranged from 2.28 % (2007/08) to 2.88 % (2010/11). The average ratio of BOK 2.54% is greater than that of NIBL 2.18%. Mobilization of deposit is a positive aspect which increases the earning for the commercial bank. The above analysis reveals that net profit to total deposit ratio of BOK are better than NIBL.

4.4.2 Interest Income to Loan and Advances:

Interest income to loan and advances is one the major sources of income for a commercial bank. The high volume of interest income is indicator of good performance of lending activities.

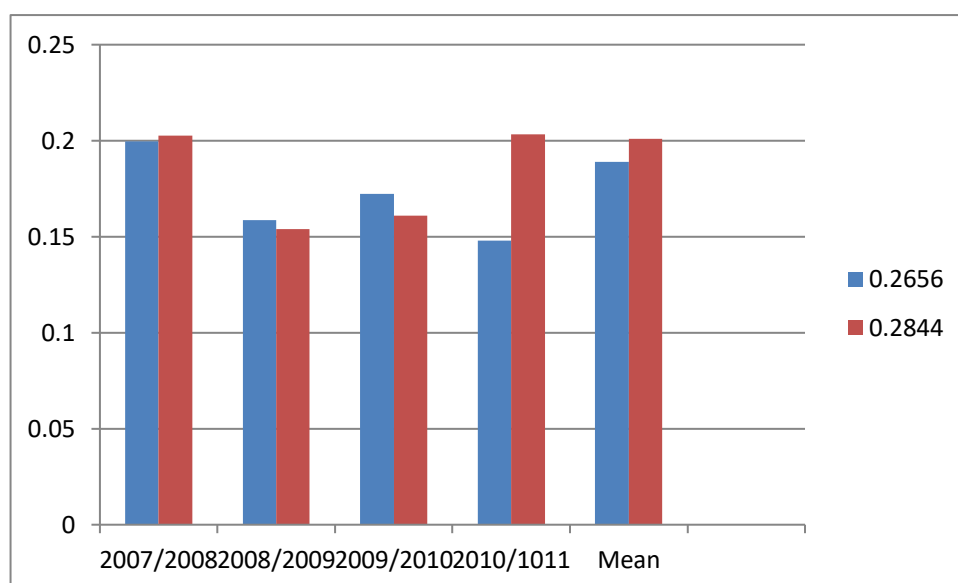
Table 4.7

Interest Income to Loan and Advances

year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.089	0.080	0.089	0.114	0.139	0.1019
BOK	0.085	0.081	0.090	0.110	0.133	0.0997

Figure 4.7

Interest Income to Loan and Advances



It shows the ratio of interest income to loan and advances of the selected companies over the study period. Interest income to loan ratio of NIBL ranges from the highest of 0.1385 and lowest of 0.0797 in the fiscal year 2010/2011 and 2007/2008 respectively. The mean ratio is 0.1019 of NIBL and 0.0997 of BOK. But comparison to the industry both banks have better.

4.4.3 Interest Income to Total Income Ratio:

This ratio measures the volume of interest income in total income. The high ratio indicates the high contribution made by lending and investment whereas low ratio indicates low contribution made by lending and investment and high contribution by other fee based activities in total income.

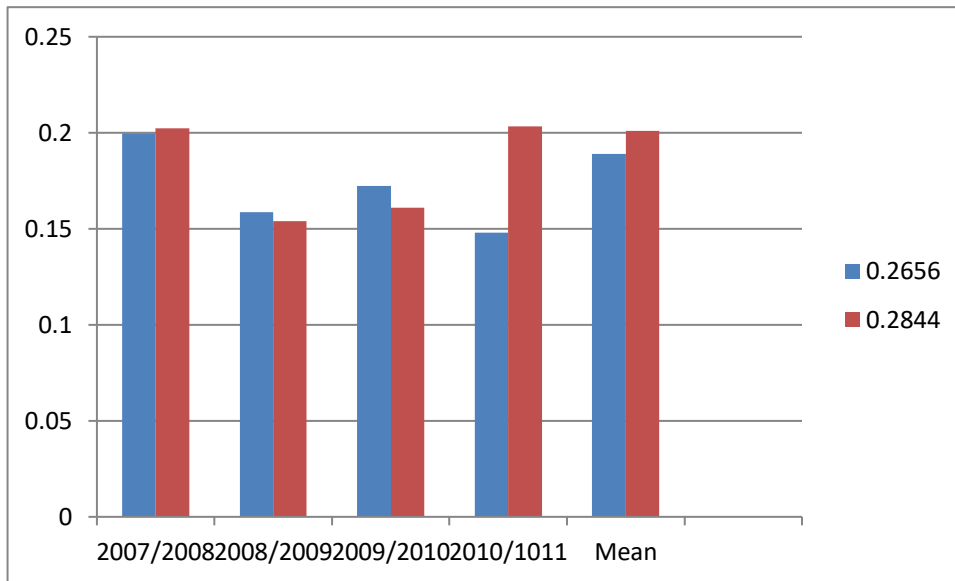
Table 4.8

Interest income to total income ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	1.2060	1.2479	1.4626	1.6949	2.0404	1.5304
BOK	1.2145	1.1972	1.2111	1.3826	1.5460	1.3103

Figure 4.8

Interest income to total income ratio



The ratio of NIBL ranges highest 2.0404 in the fiscal year 2010/11 and lowest 1.2060 in the fiscal year 2006/07. the mean ratio is 1.5304. As well as BOK ranges highest 1.5460 in the fiscal year 2010/11 and lowest 1.1972. The mean ratio is 1.31031.

From mean point of view, it can say that NIBL has interest income to total income. This shows that in total income of NIBL and BOK, interest income contributes 1.5304 and 1.3103 respectively. The lowest ratio BOK indicates its low dependency in fund-based activity. The highest ratio of NIBL indicates greater dependency on fund-based activities.

4.4.4 Net profit to total loan:

This ratio measures the earning capacity of commercial bank through its fund mobilization as loan & advances.

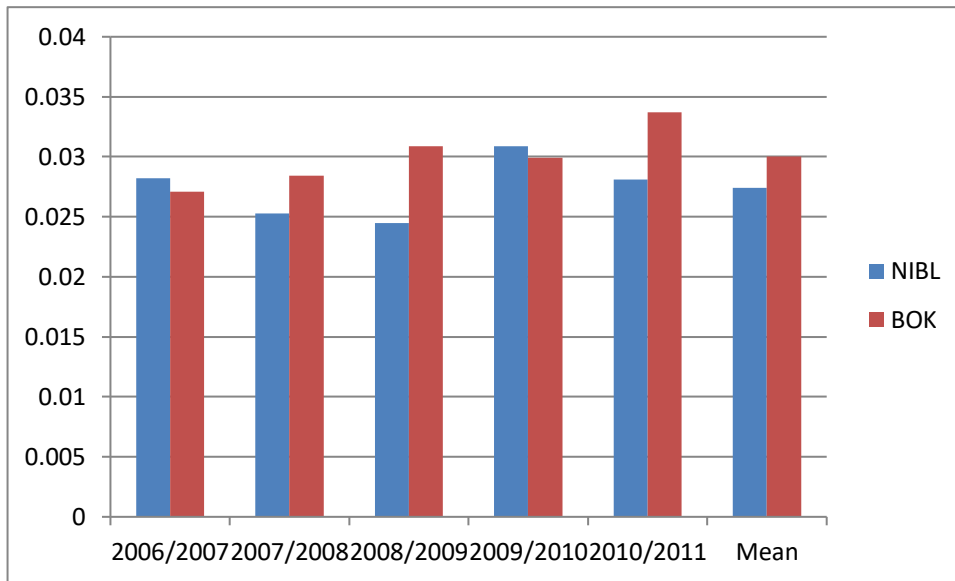
Table 4.9

Net profit to total loan

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.0282	0.0253	0.0245	0.0309	0.0281	0.0274
BOK	0.0271	0.0284	0.0309	0.0299	0.0337	0.0300

Figure 4.9

Net profit to total loan



Shows that net profit to loan and advances ratio is in fluctuation for both banks. Ratio of NIBL ranges the highest 0.0309 and lowest 0.0245 in the fiscal year 2009/2010 and 2008/2009 respectively. The mean ratio is 0.0274. Ratio of BOK ranges highest 0.0337 in the fiscal year 2010/2011 and lowest 0.0271 in the fiscal year 2006/2007. The mean ratio is 0.0300. BOK has highest mean ratio that NIBL.

It shows the normal earning capacity of NIBL and BOK in loan & advance. That means, lending policy of both banks are not so sound and credits are not granted in profitable sectors but satisfactorily in the present economic situation.

4.4.5 Net profit to total assets ratio:

The ratio is useful to measure how well management uses all the assets in business to generate an operating surplus. Higher ratio indicates higher efficiency in the utilization of total assets and vice-versa.

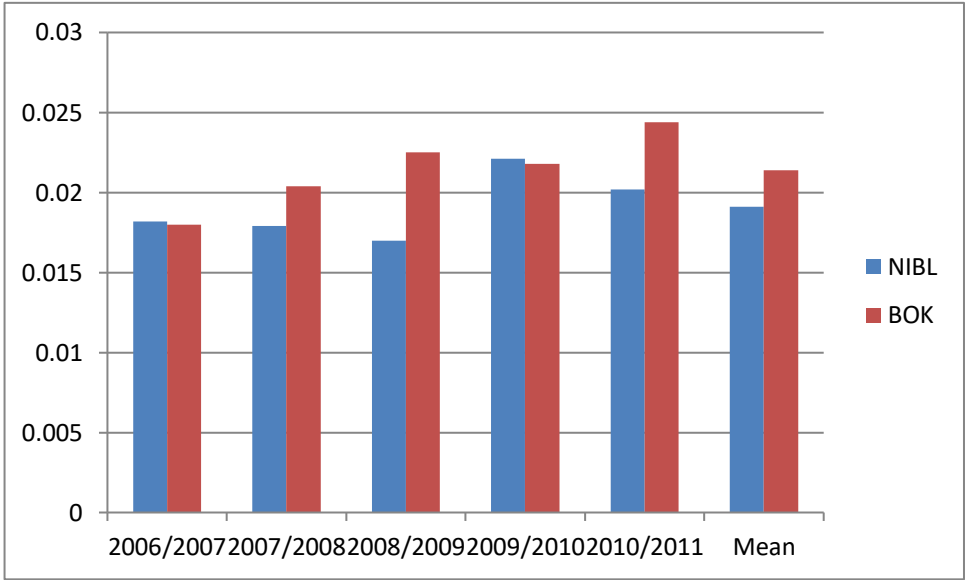
Table 4.10

Net profit to total assets ratio

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.0182	0.0179	0.0170	0.0221	0.0202	0.0191
BOK	0.0180	0.0204	0.0225	0.0218	0.0244	0.0214

Figure 4.10

Net profit to total assets ratio



It shows that net profit to tot assets ratio is in fluctuating for both banks. Ratio is NIBL ranges from the highest of 0.0221 in the fiscal year 2009/2010 and lowest 0.0170 in the fiscal year 2008/2009. The mean ratio is 0.0191. Ratio is BOK ranges from the highest of 0.0244 in the fiscal year 2010/2011 and lowest 0.0180 in the fiscal year 2006/2007. The mean ratio is 0.0214. BOK has highest mean ratio than that of NIBL.

The highest ratio of NIBL is 1.91% where of BOK is 2.14% over the study period. It means that NIBL can earn 1.91% profit of total assets and BOK can earn 2.14% profit of total assets.

4.5 Lending Efficiency Ratio:

Lending efficiency, quality of lending and its effect is measured in this topic. The efficiency of a firm depends to a large extent on the efficiency with which its assets are managed and utilized. This ratio also shows the utility to available fund. The following are the various type of lending efficiency ratios.

4.5.1 Non- performing Loan to Total Loan

NRB has directed all the commercial banks to create loan loss provision against the doubtful and bad debts. But our concerned banks have not provided data on non – performing loan in Balance Sheet and Profit and Loss A/C. To measure the volume of non-performing loan to total loan and advances the main indicator of NIBL and BOK has been used. This ratio shows the percentage on non-recovery loans in total loan and advances.

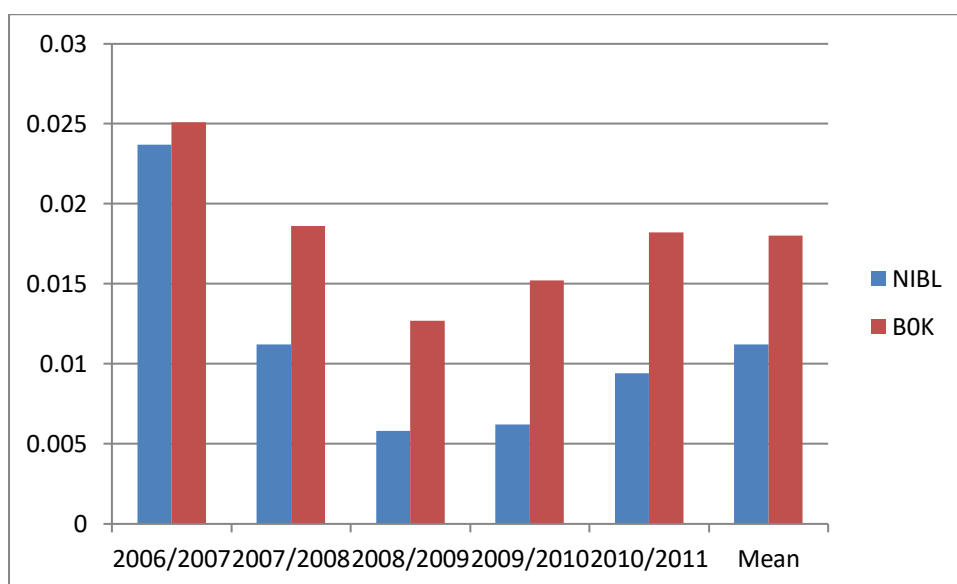
Table 4.11

Non- Performing Loan to Total Loan and Advances

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.0237	0.0112	0.0058	0.0062	0.0094	0.0112
BOK	0.0251	0.0186	0.0127	0.0152	0.0182	0.0180

Figure 4.11

Non- Performing Loan to Total Loan and Advances



The Non-performing loan to total loan of the selected companies over study period of NIBL, highest of 0.0237 and lowest 0.0058 in the fiscal year 2006/2007 and 2008/2009 respectively.

Likewise the ratio of BOK ranges the highest of 0.0251 and lowest 0.0127 in the fiscal year 2006/2007 and 2008/2009.

Banking sector is seriously affected by the non-performing loan. Both banks are not far from this above fact. If non-performing loan increases, the overall banking will be affected. So provisioned amount will increase and profit will decrease. So it is suggested that both banks to be sincere while granting loan to do effective follow up for recovery of non-performing loan.

4.5.2 Loan Loss Provision to Total Loan and Advance:

The provision for loan loss reflects the increasing probability of non-performing loan. Increase in loan loss provision decreases in profit result to decrease in dividends. But its positive impact is that strengthens the financial condition of banks by controlling the credit risk and reduces the risks related to deposits.

The low ratio indicates the good quality of assets in total volume of loan and advances. High ratio indicates move risky assets in total volume of loan and advances.

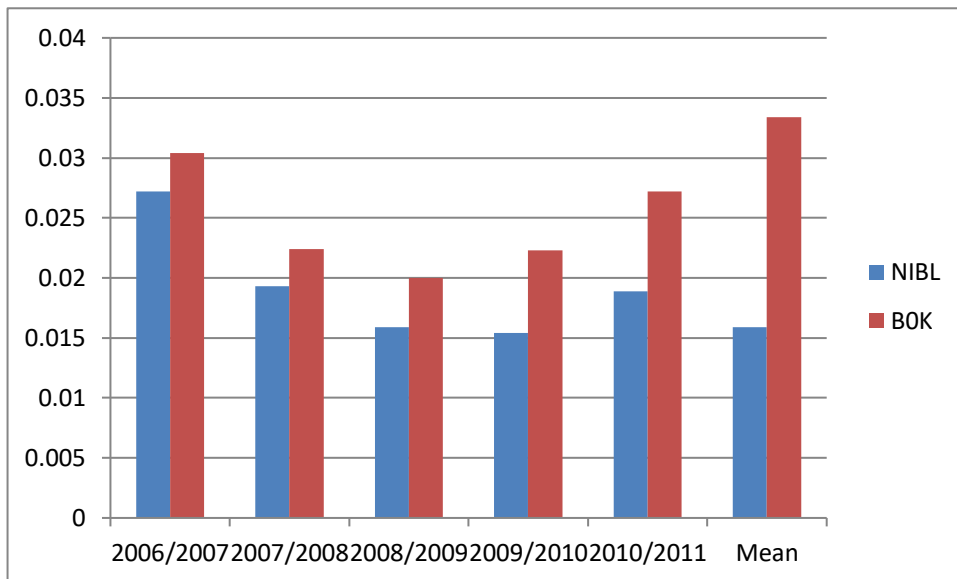
Table 4.12

Loan Loss Provision to Total Loan and Advances

Year	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	Mean
NIBL	0.0272	0.0193	0.0159	0.0154	0.0189	0.0159
BOK	0.0304	0.0224	0.0200	0.0223	0.0272	0.0334

Figure 4.12

Loan Loss Provision to Total Loan and Advances



It shows the loan loss provision to total loan and advances of selected over the study period. Ratio of BOK ranges highest 0.0304 in the fiscal year 2006/2007 and lowest 0.0200 in the fiscal year 2008/2009. Ratio of NIBL ranges highest 0.0272 and lowest 0.0154 in the fiscal year 2006/2007 and 2009/2010 in the respectively.

Here, loan loss provision of NIBL and BOK are in decreasing trend in on the fiscal year 2007/08, s o the decreasing loan loss ratio indicates efficient credit policy and gradual increment on the performance of the company.

4.6 Statistical tools:

4.6.1 Karl Pearson's of Correlation:

Correlation analysis is the statistical tool which is used to describe the degree to which one variable is related to another. The correlation is a statistical tool which studies the relationship between two variables. So different methods and techniques are used in correlation analysis for measuring the extent of relationship between the two variables. Karl Pearson's co-efficient is denoted by 'r' and the formula is as follows:

$$r = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

The value of this coefficient lies between +1 or -1. When $r = +1$, there exist a perfect positive correlation and when $r = -1$, there exist a perfect negative correlation, when $r = 0$, then is no correlation.

4.6.2. Karl Pearson's Co-efficient of Correlation between Total Deposits and Total Loan:

The correlation between deposit and loan measures the degree of relationship between these two variables. It shows what effect does dependent variable (total loan) be in variation in independent variable (total deposit).

Table No. 4.6.1

Co-efficient of Correlation between Total Deposits and Total Loan

Evaluation criteria	NIBL	BOK
K.P.P.C.(r)	1	0.98
Probable Error (P.E.)	0	0.0119
Co-efficient determination(r^2)	1	0.9604

The above table shows that the value of r of NIBL is +1 that signifies the positive relation between deposit and loan. The coefficient of determination of (r^2) is 1 that implies that 100% variation in dependent variable. Total Loan(Y) is due to the independent variable total deposit (X) and rest variation due to the other factor. Moreover, by considering the probable error, since the value of $r = 1$ is greater than 6times P.E.r. (0), that reveals the value of r significant.

Likewise, the Karl Pearson's coefficient between deposits (independent) and Loan (dependent) of BOK value r is 0.98 which signifies that there is positive relation between two sets of figure(deposit and loan). The coefficient of determination value r^2 is 0.9604 which implies that 96.04% of variation in the total loan (Y) is due to the total deposit (X) and rest due to other factors and the value 'r' (0.98) is greater than 6 times the probable error (0.0714), there is significant correlation between deposits and loan.

Thus, it is found from the above analysis the degree of relationship between deposit(X) and loan (Y) of both banks are significant because 'r' value of NIBL and BOK are greater than 6 times of P.E. moreover by considering the coefficient of determination r^2 (0.9604) of BOK has signified the higher position than NIBL (1) which show that NIBL has successful to mobilize 100% of its deposit where as BOK 96.04% of its deposit. Thus NIBL performance is better than BOK.

4.6.3. Correlation between Total Loan and Net Profit:

The correlation between loan and net profit measures the degree of relationship between these two variables. It shows what effect does dependent variable (net profit) be in the independent variable (loan).

Table 4.6.2

Correlation between Total Loan and Net Profit

Evaluation criteria	NIBL	BOK
K.P.P.C.(r)	0.96	0.97
Probable Error (P.E.)	0.0236	0.0178
Co-efficient determination(r^2)	0.9216	0.9409

The above table shows that the value of r of NIBL is 0.96 that signifies the positive relation between loan and net profit. The coefficient of determination of (r^2) is 0.9216 that implies that 92.16% variation in dependent variable. Net profit(Y) is due to the independent variable total loan (X) and rest variation due to the other factor. Moreover, by considering the probable error, since the value of $r = 0.96$ is greater than 6times P.E.r. (0.1416), that reveals the value of r significant.

Likewise, the Karl Pearson's coefficient between loan (independent) and net profit (dependent) of BOK value r is 0.97 which signifies that there is positive relation between two

sets of figure (loan and net profit). The coefficient of determination value r^2 is 0.9409 which implies that 94.09% of variation in the Net profit (Y) is due to the total loan(X) and rest due to other factors and the value r (0.97) is greater than 6 times the probable error (0.0178), there is significant correlation between loan and net profit.

Thus, it is found from the above analysis the degree of relationship between loan (X) and net profit (Y) of both banks are significant because 'r' value of NIBL and BOK are greater than 6 times of P.E.

4.7 Trend Analysis:

Trend analysis occupies an important place in the analysis and interpretation of financial statement. Trend in general terms signifies a tendency. It helps in forecasting and planning future operation. It is statistical tool which shows the previous trend of the financial performance and forecasts the future financial result of the banks.

In the present study, the tendency of net profit and total deposit of NIBL and BOK are examined for the study period. An attempt has been made to forecast the future tendency of financial in dictators for three years.

The formula of least squares method is as follows:

$$Y = a + b X$$

$$a = \frac{\sum y}{n}$$

$$b = \frac{\sum xy}{\sum x^2}$$

4.7.1 Trend Analysis of Net Profit of NIBL

Table 4.7.1

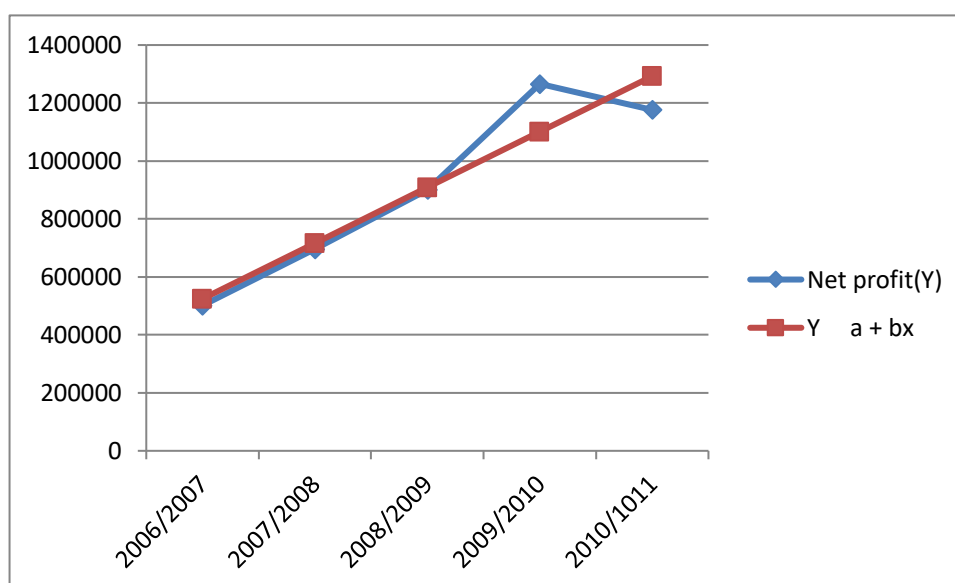
Trend Analysis of Net Profit of NIBL

Year	Net profit(Y)	Y = a + bx
2006/2007	501398	524326.8
2007/2008	696731	716297.2
2008/2009	900619	908267.6

2009/2010	1265949	1100238
2010/1011	1176641	1292208.4
N = 5		
2011/2012		1484178.8
2012/2013		1676149.2
2013/2014		1868119.6

Figure 4.7.1

Trend Analysis of Net Profit of NIBL



4.7.2 Trend Analysis of Net Profit of BOK

Table 4.7.2

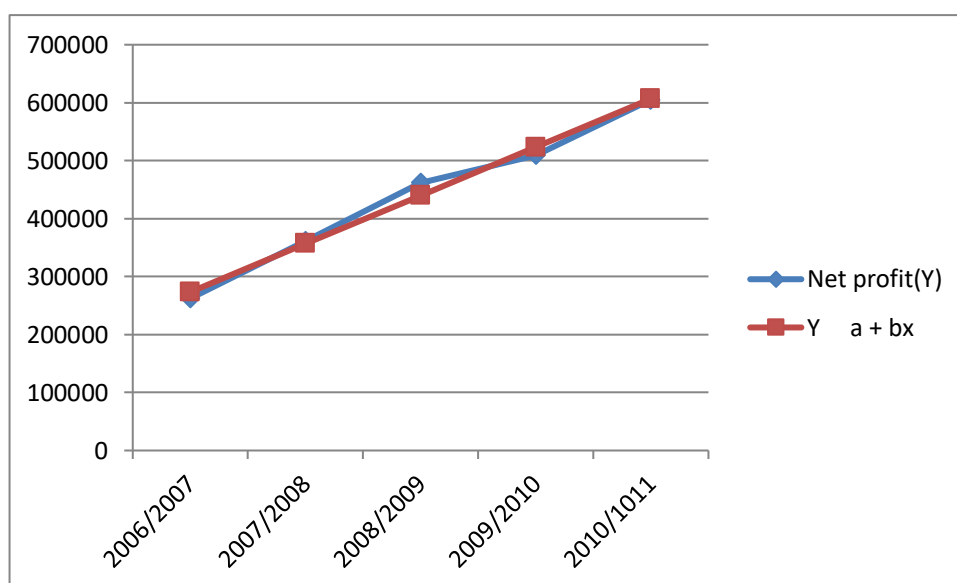
Trend Analysis of Net Profit of BOK

Year	Net profit(Y)	Y = a + bx
2006/2007	262386	273346.4

2007/2008	361496	356676.3
2008/2009	461734	440006.2
2009/2010	509263	523336.1
2010/1011	605152	606666
N = 5		
2011/2012		689995.9
2012/2013		773325.8
2013/2014		856655.7

Figure 4.7.2

Trend Analysis of Net Profit of BOK



In the above table 4.7.1 and figure no. 4.7.1 shows that the profit of NIBL has been increasing trend every year by the rate 1919704'000'. The expected net profit 2011/2012, 2012/2013 and 2013/2014 is Rs 1484178.8(000), 1676149.2(000) and 1868119.6(000) respectively.

Similarly table no 4.7.2 and figure no 4.7.2 shows that the net profit of BOK has been increasing trend every year by the rate 833299(000). The expected net profit 2011/2012, 2012/2013 and 2013/2014 is 68995.9(000), 773325.8(000) and 856655.7(000) respectively.

From the above calculation of both banks it is found that NIBL has been successful increasing its net profit every year 1919704(000) as compared of BOK Rs 833299(000).

4.7.3 Trend Analysis of Deposit of NIBL

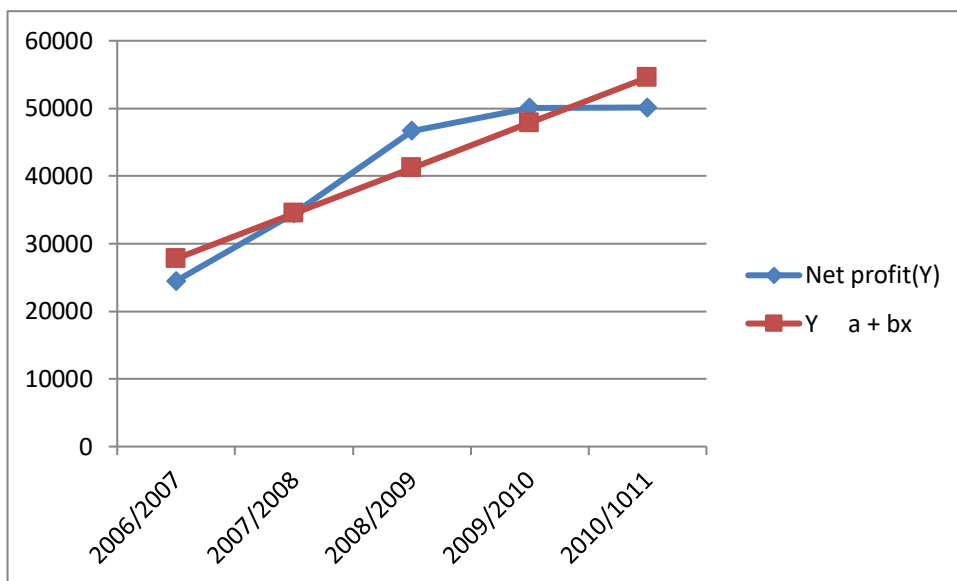
Table 4.7.3

Trend Analysis of Deposit of NIBL

Year	Net profit(Y)	$Y = a + bx$
2006/2007	24488	27785.2
2007/2008	34451	34479.5
2008/2009	46698	41173.8
2009/2010	50094	47868.1
2010/1011	50138	54562.4
N = 5		
2011/2012		61256.7
2012/2013		67951
2013/2014		74645.3

Figure 4.7.3

Trend Analysis of Deposit of NIBL



4.7.4 Trend Analysis of Deposit of BOK

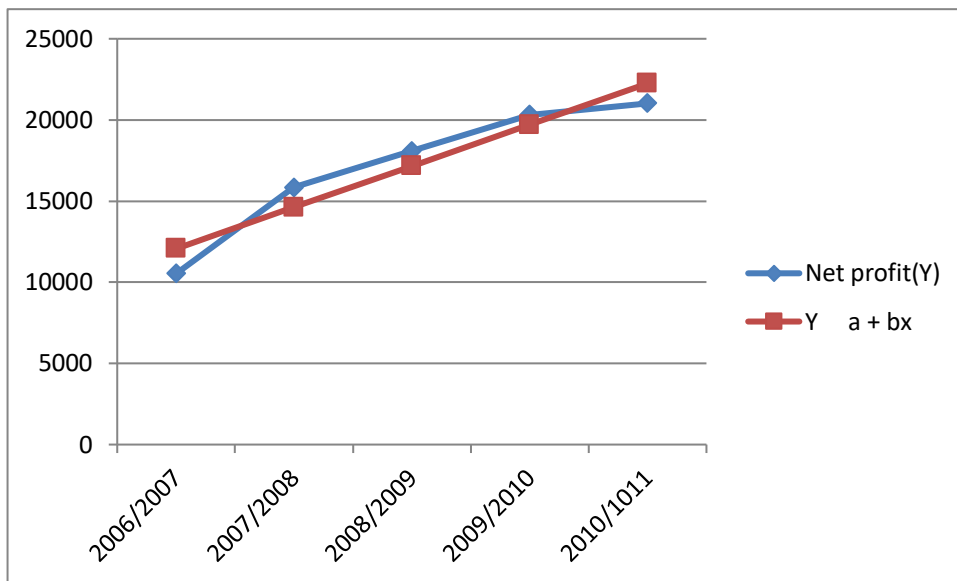
Table 4.7.4

Trend Analysis of Deposit of BOK

Year	Net profit(Y)	Y = a + bx
2006/2007	10530	12064.2
2007/2008	15833	14610
2008/2009	18083	17155.8
2009/2010	20315	19701.6
2010/2011	21018	22247.4
N = 5		
2011/2012		24793.2
2012/2013		27339
2013/2014		29884.8

Figure 4.7.4

Trend Analysis of Deposit of BOK



In the above table 4.7.3 and figure no. 4.7.3 shows that the deposit of NIBL has been increasing trend every year by the rate 66943(000000). The expected deposit 2011/2012, 2012/2013 and 2013/2014 is Rs 61256.7(000000), 67951(000000) and 74645.3(000000) respectively.

Similarly table no 4.7.4 and figure no 4.7.4 shows that the deposit of BOK has been increasing trend every year by the rate 25458(000000). The expected deposit 2011/2012, 2012/2013 and 2013/2014 is 24793.2(000000), 27339(000000) and 29884.8(000000) respectively.

From the above calculation of both banks it is found that NIBL has been successful increasing its deposit every year 66943(000000) as compared of BOK Rs 25458(000000).

4.8 Coefficient of Variation (C.V.):

The coefficient of variation (C.V.) is the relative measure based on the standard deviation and is defined as the ratio of the standard deviation to the mean expressed in percent. It is independent of units. Hence it is a suitable measure for comparing variability of two series with same or different units. A series with smaller C.V. is said to be less variable or more consistent or more homogeneous or more uniform or more stable than the others and vice versa. It is calculated as:

The formula of coefficient of variation (C.V.) is as follows:

$$\text{Coefficient of Variation} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

Table 4.8.1

Coefficient of Variation

Name	NIBL	BOK
Standard Deviation	286.33	118.62
C.V.	31.55%	26.98%
Mean	907.6	439.6

From above the table shows that C.V. of profit of BOK less than C.V. of profit NIBL. And mean also of BOK less than NIBL as well as standard deviation is also of BOK less than NIBL.

4.9 Major Findings:

- Average loan and advance to total deposit ratio of BOK and NIBL is 0.8265 and 0.7916 respectively. BOK has higher mean of loan & advances to total deposit ratio than that of NIBL during the study period. From the analysis, we can say that BOK is in good form according to deposit mobilization point of view than NIBL. But it does not mean that BOK is investing more of its collected fund in high return but with low risk sector than NIBL.
- Average total investment and total deposit ratio BOK and NIBL is 0.2010 and 0.1889 respectively. BOK has higher mean of total investment to total deposit ratio than that of NIBL. During the study period, movements of ratios are first increasing, then decreasing and again increasing. It may be due to slack in the different sectors of economy banks are unable to mobilize its fund in loan & advances of other companies properly.
- Average loan to total assets of BOK and NIBL 0.7135 and 0.6958. It can be conclude that the higher mean ratio indicates the good lending performance. Here NIBL should focus to increase loan and advances to total assets ratio to increase lending performance.
- Average interest expenses to total deposit ratio BOK and NIBL 0.0384 and 0.0432. Average interest expenses to total deposit ratio of BOK than higher than of NIBL

ratio. Higher ratio indicates the increased cost of deposit. NIBL is able to collect the cheaper deposit than that of BOK.

- The average ratio of net profit to total deposit ratios is higher of BOK 0.0254 and NIBL had lowest average ratio of net profit to total deposit ratio 0.0218. The net profit to total deposit ratio of BOK is better than NIBL. It implies that BOK has better performance on mobilization of total deposits. NIBL also shows satisfactory performance on the mobilization of total deposits.
- The average ratio of interest income to loan and advance ratios is higher of NIBL 0.1019 and lower of BOK 0.0997. NIBL has the higher mean of interest income to loan & advances ratio than that of NIBL. From the analysis, we can say that NIBL has highest interest income ratio than BOK. That means NIBL is able to grant its credit (loan & advances) in high interest earning area.
- Total income of BOK and NIBL, interest income contributes 1.3103 and 1.5304 respectively. The lowest ratio of BOK indicates its low dependency in fund- based activity. The highest ratio of NIBL indicates greater dependency on fund-based activities.
- BOK has the higher mean of net profit to loan & advances ratio than that of NIBL. From the analysis, the mean ratio return on loan & advances ratio of BOK and NIBL 0.0300 and 0.0274 that means, lending policy of both banks are not so sound and credits are not granted in profitable sectors but satisfactorily in the present economic situation.
- Average net profit to total assets ratio BOK and NIBL 0.0214 and 0.0191. BOK has the higher mean of net profit to total assets ratio than that of NIBL during the study period. From the analysis, we can say that BOK has better earning capacity than NIBL.
- BOK has higher mean of loan loss provision to loan & advances ratio than that of NIBL over the study period. The mean ratios of BOK 0.0334 and NIBL 0.0193. From the analysis, we can say that NIBL has very low degree of provision over total lending than BOK. It indicates that NIBL has decreasing volume of non-performing loans during the study period than BOK.
- BOK has the higher mean of non-performing loan to loan & advances ratio than that of NIBL. It shows that lending policy of BOK is sound and effective than NIBL. NIBL has lowest non performing loan to total loan and advances, this NIBL is best

performer than the BOK. Banking sector are seriously affected by the non-performing loan increases, the overall banking business will be affected. So provision amount will increase and profit will decrease. So, it is suggested that both banks to be sincere while granting loan and to do effective follow up for recovery of non-performing loan.

- BOK has positive with significant relationship at all time between total deposits and total loan & advances. The relationship is significant, i.e. loan & advances is increased as the portion increases in deposits in relation to 0.98 and vice-versa.
- NIBL has positive with significant relationship between total deposits and total loan & advances. The relationship is significant, i.e. loan & advances is increased as the portion increases in deposits in relation to 1 and vice-versa.
- BOK has positive with significant relationship between total loan & advances and net profit. The relationship is significant, i.e. profit is increased as the portion increases in loan & advances in relation to 0.97 and vice-versa.
- NIBL also has positive with significant relationship at all time between total loan & advances and net profit. The relationship is significant, i.e. profit is increased as the portion increases in loan & advances in relation to 0.96 and vice-versa.
- Least square trend line shows the net profit of BOK have been increasing with a constant growth rate of 8332999(000). The expected net profit 2011/2012, 2012/2013 and 2013/2014 is 68995.9(000), 773325.8(000) and 856655.7(000) respectively.
- Least square trend line shows that the profit of NIBL has been increasing trend every year by the rate 1919704'000'. The expected net profit 2011/2012, 2012/2013 and 2013/2014 is Rs 1484178.8(000), 1676149.2(000) and 1868119.6(000) respectively.
- Least square trend line shows that the deposit of BOK has been increasing trend every year by the rate 25458(000000). The expected deposit 2011/2012, 2012/2013 and 2013/2014 is 24793.2(000000), 27339(000000) and 29884.8(000000) respectively.
- Least square trend line shows that the deposit of NIBL has been increasing trend every year by the rate 66943(000000). The expected deposit 2011/2012, 2012/2013 and 2013/2014 is Rs 61256.7(000000), 67951(000000) and 74645.3(000000) respectively.

CHAPTER- V

SUMMARY, CONCLUSION AND RECOMMENDATION

As the final chapter of the study; this chapter briefly explains the summary of the study, tries to fetch out finding and conclusions and attempts to offer suggestions and recommendations for strengthen the financial position of the sample banks.

5.1 Summary:

Development of any nation depends on capital vested and mobilized in productive sectors like industries trade and business of every nook and corners of the country. In the development of economy of the world is this result of substantial investment in such productive sectors in order to boost up the economy and the social life of any country, it is extremely essential to have a mechanism through which small amount of saving can be collected and transferred into efficient uses . Hence, finance plays a vital role and thus contributes in the economic development of nation and the banks provide such financial services.

The basis of business is borrowing from individuals, firms and occasionally government i.e. receiving deposit from them. With these resources and bank's own capital, banks disburse loan or extend credit and also invest in securities. Bank is an institution, which deals with the transaction of money. They perform several financial monetary and economic activities that are essential to accelerate the rate of economic growth of the country.

At present, 33 commercial banks have been operating in Nepal. After the adaptation of liberal policy by the government in 1990 number of banks and financial institutions are increasing day by day. They have been rendering high quality banking services to the people. There is cut throat competition between banks and financial institutions.

This research has been undertaken to evaluate the credit management of commercial banks. Two Bank of Kathmandu Limited and Investment Bank Limited banks are under study and five financial statements of respective banks have been used for the study. The study has been divided into five chapters which include introduction, review of literature, research methodology, data presentation and analysis and summary, conclusion and recommendation. This study mainly based secondary data with include published annual report and other publication banks. Other related information was gathered from the concerned banks, Nepal Rastra Bank. Nepal Stock Exchange, Securities Board of Nepal, different websites. The data have been analyzed by using

financial and statistical tools like ratio analysis, correlation coefficient, coefficient of variation and trend analysis.

5.2 Conclusion:

The study shows that over the period, average loan and advances ratio NIBL and BOK is 0.7916 and 0.8491. Average total investment and total deposit ratio BOK and NIBL is 0.2010 and 0.1889 respectively. During the study period, movements of ratios are first increasing, then decreasing and again increasing. It may be due to slack in the different sectors of economy banks are unable to mobilize its fund in loan & advances of other companies properly. Average, loan to total assets of BOK and NIBL 0.7135 and 0.6958. It can be conclude that the higher mean ratio indicates the good lending performance. Here NIBL should focus to increase loan and advances to total assets ratio to increase lending performance. Average interest expenses to total deposit ratio BOK and NIBL 0.0384 and 0.0432. Higher ratio indicates the increased cost of deposit. NIBL is able to collect the cheaper deposit than that of BOK. The average ratio of net profit to total deposit ratios is of BOK 0.0254 and NIBL had average ratio of net profit to total deposit ratio 0.0218. It implies that BOK has better performance on mobilization of total deposits. NIBL also shows satisfactory performance on the mobilization of total deposits. The average ratio of interest income to loan and advance ratios is of NIBL 0.1019 and BOK 0.0997. NIBL has highest interest income ratio than BOK. That means NIBL is able to grant its credit in high interest earning area. Total income of BOK and NIBL, interest income contributes 1.3103 and 1.5304 respectively. The lowest ratio of BOK indicates its low dependency in fund- based activity. The highest ratio of NIBL indicates greater dependency on fund-based activities. The mean ratio net profit on loan & advances ratio of BOK and NIBL 0.0300 and 0.0274 that means, lending policy of both banks are not so sound and credits are not granted in profitable sectors but satisfactorily in the present economic situation. Average net profit to total assets ratio BOK and NIBL 0.0214 and 0.0191. Here, BOK has better earning capacity than NIBL. Mean ratios of loan loss provision to total loan of BOK 0.0334 and NIBL 0.0193. NIBL has very low degree of provision over total lending than BOK. It indicates that NIBL has decreasing volume of non-performing loans during the study period than BOK. It shows that lending policy of BOK is sound and effective than NIBL. NIBL has lowest non performing loan to total loan and advances, this NIBL is best performer than the BOK. Banking sector are seriously affected by the non-

performing loan increases, the overall banking business will be affected. So provision amount will increase and profit will decrease. So, it is suggested that both banks to be sincere while granting loan and to do effective follow up for recovery of non-performing loan. BOK has positive with significant relationship at all time between total deposits and total loan & advances. The relationship is significant, i.e. loan & advances is increased as the portion increases in deposits in relation to 0.98 and vice-versa. NIBL has positive with significant relationship between total deposits and total loan & advances. The relationship is significant, i.e. loan & advances is increased as the portion increases in deposits in relation to 1 and vice-versa. BOK has positive with significant relationship between total loan & advances and net profit. The relationship is significant, i.e. profit is increased as the portion increases in loan & advances in relation to 0.97 and vice-versa. NIBL also has positive with significant relationship at all time between total loan & advances and net profit. The relationship is significant, i.e. profit is increased as the portion increases in loan & advances in relation to 0.96 and vice-versa. Least square trend line shows the net profit of BOK have been increasing with a constant growth rate of 8332999(000). Least square trend line shows that the profit of NIBL has been increasing trend every year by the rate 1919704(000). Least square trend line shows that the deposit of BOK has been increasing trend every year by the rate 25458(000000). Least square trend line shows that the deposit of NIBL has been increasing trend every year by the rate 66943(000000).

5.3 Recommendation:

The findings of the study reflect both positive and negative results with respect to the financial performance of the sample banks. But the recommendations have been presented for the improvement of the negative of the banks. As per the above conclusion the following suggestions can be conclude for the banks:

- Both banks are better the loan and advances to deposit.
- Banking sector is seriously affected by the non-performing loan. Both banks are not far from this above fact. If non-performing loan increases, the overall banking business will be affected banks should sincere while granting loan and to do effective follow up for recovery non-performing loan.

- NIBL and BOK should be more exercise in credit creation and maintaining the effective, competitive rate for the loan and advances. This helps them to maintain more competitive in the growing banking industry of the country.
- Banks could do better by offering modern banking facilities and new product for the development of banking industry.
- Provisional on Bad Loan should be maintained as per the directives of Nepal Rastra Bank.
- Banks should regularly follow the credit customer and their business to confirm that whether the customers have utilized their credit for the same purpose committed at the timeframe. So the respective department should aware and take the action to the branches for timely review of the every loan and advances. It helps to control the downgrade of the loan and advances. Review of the loan and frequent contact with borrowers also minimize the change of misuse of the loan.
- Borrowers do not pay the bank loan in due is the major problem of the banks. Since the bank is not the charitable institute to donate funds to the borrowers, it should improve in the recovery of loan by restructuring and rescheduling the loan and reinvesting the resource which will generate the income of borrower and ultimately increases in paying capacity of the bank loan. For this the manager and loan staff of branches should be provide with adequate training so that they could identify right project and ensure correct project appraisal so the on one hand the borrower will be benefited and on the other hand, the borrowers will be able to repay back their loan to the bank.
- These banks should be focus for non funded facility for its less risky business with for good income.
- For effective loan recovery of the priority sector it is needed to advertise from corner to corner of the nation about the facilities of rebate in interest if the overdue loan amount is paid within the specified time and interest facility for those who settle the loans.
- These banks should be taken the prompt corrective action for strengthening its business capacity.
- These banks have been changed to modern banking from traditional ledger however it should be injected new blood to cope the changes of the bank.
- Other recommendation for the achievement of target goals and objective of commercial banks. From above study, analysis and observation with facts we must conclude with a reasonable realistic solution. Some of important and valuable suggestion for strength of

commercial bank establishment, sustainable growth. Commercial banks have to channel zed fund by gradually shifting priorities from consumer loan to the productive sector to help for capital formation in the country. Commercial banks have to improve their quality of services. They have to shift their focus from urban areas, where they can collect.

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APPENDIX - 1

Total Loan to Deposit Ratio of NIBL

“000”

Year	Total Loan	Total Deposit	Ratio (X)
2006/2007	1776909	2448855	0.7256
2007/2008	27529304	34451726	0.7910
2008/2009	36327157	46698100	0.7886
2009/2010	40948440	50094725	0.8174
2010/2011	41887693	50138122	0.8354
			$\sum X = 3.958$

$$\begin{aligned} \bar{X} &= \frac{\sum X}{N} \\ &= \frac{3.958}{5} \\ &= 0.7916 \end{aligned}$$

APPENDIX - 2

Total Loan to Deposit Ratio of BOK

“000”

Year	Total Loan	Total Deposit	Ratio (X)
2006/2007	9694101	10530939	0.9205
2007/2008	12747721	15833737	0.8051
2008/2009	14945719	18083980	0.8265
2009/2010	17044299	20315834	0.8390
2010/2011	17956951	21018417	0.8543
			$\sum X = 4.2454$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{4.2454}{5}$$

$$= 0.8491$$

APPENDIX - 3

Total investment to deposit ratio of NIBL

“000”

Year	Total Investment	Total Deposit	Ratio (X)
2006/2007	6505679	24488855	0.2656
2007/2008	6879423	34451726	0.1997
2008/2009	7399811	46698100	0.1585
2009/2010	8638530	50094725	0.1724
2010/2011	7425056	50138122	0.1481
			$\sum X = 0.9443$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{0.9443}{5}$$

$$= 0.1889$$

APPENDIX - 4

Total investment to deposit ratio of BOK

“000”

Year	Total Investment	Total Deposit	Ratio (X)
2006/2007	2995192	10530939	0.2844
2007/2008	3206826	15833737	0.2025
2008/2009	2786357	18083980	0.1541
2009/2010	3269204	20315834	0.1609
2010/2011	4286599	21081417	0.2033
			$\sum X = 1.0052$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{1.0052}{5}$$

$$= 0.2010$$

APPENDIX -5

Total loan to total assets ratio of NIBL

“000”

Year	Total Loan	Total Assets	Ratio (X)
2006/2007	17769099	27590844	0.6440
2007/2008	27529304	38873306	0.7082
2008/2009	36827157	53010803	0.6947
2009/2010	40948440	57305413	0.7146
2010/2011	41887693	58356827	0.7178
			$\sum X = 3.4793$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{3.4793}{5}$$

$$= 0.6958$$

APPENDIX - 6

Total loan to total assets ratio of BOK

“000”

Year	Total Loan	Total Assets	Ratio (X)
2006/2007	9694101	14570098	0.6653
2007/2008	12747721	17721925	0.7193
2008/2009	14945719	20496005	0.7292
2009/2010	17044299	23396191	0.7285
2010/2011	17956951	24757750	0.7253
			$\sum X = 3.5676$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{3.5676}{5}$$

$$= 0.7135$$

APPENDIX -7

Interest expenses to total deposit of NIBL

“000”

Year	Interest expense	Total deposit	Ratio (X)
2006/2007	685530	24488855	0.0280
2007/2008	992158	34451726	0.0288
2008/2009	1686973	46698100	0.0361
2009/2010	2553847	50094725	0.0510
2010/2011	3620336	50138122	0.0722
			$\sum X = 0.2161$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{0.2161}{5}$$

$$= 0.0432$$

APPENDIX - 8

Interest expenses to total deposit of BOK

“000”

Year	Interest expense	Total deposit	Ratio (X)
2006/2007	339181	10530939	0.0322
2007/2008	417543	15833737	0.0264
2008/2009	563113	18083980	0.0311
2009/2010	902927	20315834	0.0444
2010/2011	1218790	21018417	0.0580
			$\sum X = 0.1921$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{0.1921}{5}$$

$$= 0.0384$$

APPENDIX - 9

Non-interest bearing deposit to total deposit of NIBL

“000”

Year	Non- interest bearing deposit	Total deposit	Ratio (X)
2006/2007	2546691	24488855A	0.1040
2007/2008	3745732	34451726	0.1087
2008/2009	4484560	46698100	0.0960
2009/2010	4805294	50094725	0.0959
2010/2011	4701496	50138122	0.0938
			$\sum X = 0.4984$

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{0.4984}{5}$$

$$= 0.0997$$

APPENDIX - 10

Non-interest bearing deposit to total deposit of BO“000”

“000”

Year	Non- interest bearing deposit	Total deposit	Ratio (X)
2006/2007	1857987	10530939	0.1764
2007/2008	2336336	15833737	0.1476
2008/2009	2525661	18083980	0.1397
2009/2010	3115177	20315834	0.1533
2010/2011	2653283	21018417	0.1262
			$\sum X = 0.7432$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.7432}{5} \\ &= 0.1486\end{aligned}$$

APPENDIX - 11

Net profit to total deposit of NIBL

“000”

Year	Net profit	Total deposit	Ratio(X)
2006/2007	501398	24488855	0.0205
2007/2008	696731	34451726	0.0202
2008/2009	900619	46698100	0.0193
2009/2010	1265949	50094725	0.0253
2010/2011	1176641	50138122	0.0235
			$\sum X = 0.1088$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.1088}{5} \\ &= 0.218\end{aligned}$$

APPENDIX - 12

Net profit to total deposit of BOK

“000”

Year	Net profit	Total deposit	Ratio(X)
2006/2007	262386	10530939	0.0249
2007/2008	361496	15833737	0.0228
2008/2009	461734	18083980	0.0255
2009/2010	509236	20315834	0.0251

2010/2011	605152	21018417	0.0288
			$\sum X = 0.1271$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.1271}{5} \\ &= 0.0254\end{aligned}$$

APPNDIX - 13

Interest income to total loan of NIBL

“000”

Year	Interest income	Total loan	Raito (X)
2006/2007	1584987	17769099	0.0892
2007/2008	2194275	27529304	0.0797
2008/2009	3267941	36827157	0.0887
2009/2010	4653521	40948440	0.1136
2010/2011	5803440	41887693	0.1385
			$\sum X = 0.5097$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.5097}{5} \\ &= 0.1019\end{aligned}$$

APPENDIX - 14

Interest income to total loan of BOK

“000”

Year	Interest income	Total loan	Raito (X)
2006/2007	819003	9694101	0.0845

2007/2008	1034157	12747721	0.0811
2008/2009	1347755	14945719	0.0902
2009/2010	1870846	17044299	0.1098
2010/2011	2386780	17956951	0.1329
			$\sum X = 0.4985$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.4985}{5} \\ &= 0.0997\end{aligned}$$

APPENDIX - 15

Interest income to total income of NIBL

“000”

Year	Interest income	Total income	Ratio (X)
2006/2007	1584987	1314233	1.2060
2007/2008	2194275	1758249	1.2479
2008/2009	3267941	2234268	1.4626
2009/2010	4653521	2745535	1.6949
2010/2011	5803440	2844199	2.0404
			$\sum X = 7.6518$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{7.6518}{5} \\ &= 1.5304\end{aligned}$$

APPENDIX - 16

Interest income to total income of BOK

“000”

Year	Interest income	Total income	Ratio (X)
------	-----------------	--------------	-----------

2006/2007	819003	674303	1.2145
2007/2008	1034157	863773	1.1972
2008/2009	1347755	1112792	1.2111
2009/2010	1870846	1353129	1.3826
2010/2011	2386780	1543786	1.5460
			$\sum X = 6.5514$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{6.5514}{5} \\ &= 1.3103\end{aligned}$$

APPENDIX - 17

Net profit to total loan of NIBL

“000”

Year	Net profit	Total loan	Ratio (X)
2006/2007	501398	17769099	0.0282
2007/2008	696731	27529304	0.0253
2008/2009	900619	36827157	0.0245
2009/2010	1265949	40948440	0.0309
2010/2011	1176641	41887693	0.0281
			$\sum X = 0.137$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.137}{5} \\ &= 0.0274\end{aligned}$$

APPENDIX - 18

Net profit to total loan of BOK

“000”

Year	Net profit	Total loan	Ratio (X)
2006/2007	262386	9694101	0.0271
2007/2008	361496	12747721	0.0284
2008/2009	461734	14945719	0.0309
2009/2010	509263	17044299	0.0299
2010/2011	605152	17956951	0.0337
			$\sum X = 0.15$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.15}{5} \\ &= 0.03\end{aligned}$$

APPENDIX - 19

Net profit to total assets ratio of NIBL

“000”

Year	Net profit	Total assets	Ratio (X)
2006/2007	501398	27590844	0.0182
2007/2008	696731	38873306	0.0179
2008/2009	900619	53010803	0.0170
2009/2010	1265949	57305413	0.0221
2010/2011	1176641	58356827	0.0202
			$\sum X = 0.0954$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.0954}{5} \\ &= 0.0191\end{aligned}$$

APPENDIX - 20

Net profit to total assets ratio of BOK

“000”

Year	Net profit	Total assets	Ratio (X)
2006/2007	262386	14570098	0.0180
2007/2008	361496	17721925	0.0204
2008/2009	461734	20496005	0.0225
2009/2010	509263	23396191	0.0218
2010/2011	605152	24757750	0.0244
			$\sum X = 0.1071$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.1071}{5} \\ &= 0.0214\end{aligned}$$

APPENDIX - 21

Non-performing loan to total loan of NIBL

“000”

Year	Non-performing loan	Total loan	Ratio (X)
2006/2007	421971	17769099	0.0237
2007/2008	309470	27529304	0.0112
2008/2009	213907	36827157	0.0058
2009/2010	254034	40948440	0.0062
2010/2011	395282	41887693	0.0094
			$\sum X = 0.0563$

$$\begin{aligned}\bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.0563}{5} \\ &= 0.0112\end{aligned}$$

APPENDIX - 22

Non-performing loan to total loan of BOK

“000”

Year	Non-performing loan	Total loan	Ratio (X)
2006/2007	243296	9694101	0.0251
2007/2008	236898	12747721	0.0186
2008/2009	190315	14945719	0.0127
2009/2010	259217	17044299	0.0152
2010/2011	326329	17956951	0.0182
			$\sum X = 0.0898$

$$\begin{aligned} \bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.0898}{5} \\ &= 0.0180 \end{aligned}$$

APPENDIX - 23

Loan loss provision to total loan of NIBL

“000”

Year	Loan loss provision	Total loan	Ratio (X)
2006/2007	482673	17769099	0.0272
2007/2008	532652	27529304	0.0193
2008/2009	585950	36827157	0.0159
2009/2010	630131	40948440	0.0154
2010/2011	792179	41887693	0.0189
			$\sum X = 0.0967$

$$\begin{aligned} \bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.0967}{5} \\ &= 0.0193 \end{aligned}$$

APPENDIX - 24

Loan loss provision to total loan of BOK

“000”

Year	Loan loss provision	Total loan	Ratio (X)
2006/2007	294774	9694101	0.0304
2007/2008	285084	12747721	0.0224
2008/2009	298422	14945719	0.0200
2009/2010	379368	17044299	0.0223
2010/2011	488757	17956951	0.0272
			$\sum X = 0.1223$

$$\begin{aligned} \bar{X} &= \frac{\sum X}{N} \\ &= \frac{0.1223}{5} \\ &= 0.0245 \end{aligned}$$

APPENDIX - 25

Computation of straight line trend analysis of net profit NIBL

$$Y = a + bx$$

$$a = \frac{\sum y}{n}$$

$$b = \frac{\sum xy}{\sum x^2}$$

“000”

Year	Net profit (y)	Year deviation(x)	x^2	xy	$y = a + bx$
06/07	501398	-2	4	(1002796)	524326.8
07/08	696731	-1	1	(696731)	716297.2
08/09	900619	0	0	0	908267.6
09/10	1265949	1	1	1265949	1100238
10/11	1176641	2	4	2353282	1292208.4
	$\sum Y = 4541338$	$\sum X = 0$	$\sum_x 2 = 10$	$\sum xy = 1919704$	
		3			1484178.8
		4			1676149.2
		5			1868119.6

$$a = \frac{\sum y}{n}$$

$$a = \frac{4541338}{5}$$

$$= 908267.6$$

$$b = \frac{\sum xy}{\sum x^2}$$

$$b = \frac{1919704}{10}$$

$$= 191970.4$$

$$[908267.6 + (191970.4 \times -2)]$$

$$524326.8$$

APPENDIX - 26

Computation of straight line trend analysis of net profit BOK

“000”

Year	Net profit (y)	Year deviation(x)	x^2	xy	$y = a + bx$
06/07	262386	-2	4	(524772)	273346.4
07/08	361496	-1	1	(361496)	356676.3
08/09	461734	0	0	0	440006.2
09/10	509263	1	1	509263	523336.1
10/11	605152	2	4	1210304	606666
	$\sum y$ = 2200031	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy$ = 833299	
		3			689995.9
		4			773325.8
		5			856655.7

$$a = \frac{\sum y}{n}$$

$$= \frac{2200031}{5}$$

$$= 440006.2$$

$$b = \frac{\sum xy}{\sum x^2}$$

$$= \frac{833299}{10}$$

$$= 83329.9$$

APPENDIX - 27

Computation of straight line trend analysis of deposit of NIBL

“000000”

Year	Deposit(y)	Year deviation (x)	x^2	xy	Y=a+bx
06/07	24488	-2	4	(48976)	27785.2
07/08	34451	-1	1	(34451)	34479.5
08/09	46698	0	0	0	41173.8
09/10	50094	1	1	50094	47868.1
10/11	50138	2	4	100276	54562.4
	$\sum y = 205869$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 66943$	
		3			61256.7
		4			67951
		5			74645.3

$$a = \frac{\sum y}{n}$$

$$= \frac{205869}{5}$$

$$= 41173.8$$

$$b = \frac{\sum xy}{\sum x^2}$$

$$= \frac{66943}{10}$$

$$= 6694.3$$

APPENDIX - 28

Computation of straight line trend analysis of deposit of BOK

“000000”

Year	Deposit(y)	Year deviation (x)	x^2	xy	Y=a+bx
06/07	10530	-2	4	(21060)	12064.2
07/08	15833	-1	1	(15833)	14610
08/09	18083	0	0	0	17155.8
09/10	20315	1	1	20315	19701.6
10/11	21018	2	4	42036	22247.4
	$\sum y = 85779$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 25458$	
		3			24793.2
		4			27339
		5			29884.8

$$a = \frac{\sum y}{n}$$

$$a = \frac{85779}{5}$$

$$=17155.8$$

$$b = \frac{\sum xy}{x^2}$$

$$b = \frac{25458}{10}$$

$$= 2545.8$$

APPENDIX – 29

Correlation between total deposit and total loan of NIBL

“000000000”

Year	Deposit(x)	Loan(y)	x^2	y^2	xy
06/07	24.48	17.76	599.27	315.42	434.76
07/08	34.45	27.52	1186.80	757.35	948.06
08/09	46.69	36.82	2179.96	1355.71	1719.13
09/10	50.09	40.94	2509.01	1676.06	2050.68
10/11	50.13	41.88	2513.02	1753.93	2099.44
	$\sum x$ = 205.84	$\sum y$ = 164.92	\sum_x^2 = 8988.06	\sum_y^2 = 5858.49	$\sum xy$ = 7252.07

$$\begin{aligned} \text{Correlation (r)} &= \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \\ &= \frac{5 \times 7252.07 - 205.84 \times 164.92}{\sqrt{5 \times 8988.06 - (205.84)^2} \sqrt{5 \times 5858.49 - (164.92)^2}} \\ &= \frac{2313.22}{\sqrt{44940.3 - 42370.11} \sqrt{29292.45 - 2719.61}} \\ &= \frac{2313.22}{2319.82} \\ &= +1 \end{aligned}$$

Calculation of Probable Error (P.E.)

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

r^2	$1-r^2$	$0.6745 \times (1-r^2)$	$\sqrt{5}$	P.E.	6P.E.
1	0	0	2.2361	0	0

APPENDIX - 30

Correlation between total deposit and total loan of BOK

“000000000”

Year	Deposit(x)	Loan(y)	x^2	y^2	xy
06/07	10.53	9.69	110.88	93.90	102.04
07/08	15.83	12.74	250.59	162.31	201.67
08/09	18.08	14.94	326.89	223.20	270.12
09/10	20.31	17.04	412.50	290.36	346.08
10/11	21.01	17.95	441.42	322.20	377.13

$\sum x = 85.76$	$\sum y = 72.36$	$\sum x^2 = 1542.28$	$\sum y^2 = 1091.97$	$\sum xy = 1296.49$
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$$\begin{aligned} \text{Correlation (r)} &= \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \\ &= \frac{5 \times 1296.49 - 85.76 \times 72.36}{\sqrt{5 \times 1542.28 - (85.76)^2} \sqrt{5 \times 1091.97 - (72.36)^2}} \\ &= \frac{276.86}{\sqrt{7711.4 - 7354.78} \sqrt{5459.85 - 5235.97}} \\ &= \frac{276.86}{282.56} \\ &= +0.98 \end{aligned}$$

Calculation of Probable Error (P.E.)

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

r^2	$1-r^2$	$0.6745 \times (1-r^2)$	$\sqrt{5}$	P.E.	6P.E.
0.9604	0.0396	0.02671	2.2361	0.0119	0.0714

APPENDIX - 31

Correlation between total loan and net profit of NIBL

“000000000”

Year	Loan(x)	Net profit(y)	x^2	y^2	xy
06/07	17.76	0.50	315.42	0.25	8.88
07/08	27.52	0.69	757.35	0.48	18.99
08/09	36.82	0.90	1355.71	0.90	33.14

09/10	40.94	1.2	1676.08	1.44	49.13
10/11	41.88	1.1	1753.93	1.21	46.02
	$\sum x = 164.92$	$\sum y = 4.39$	$\sum x^2 = 5858.49$	$\sum y^2 = 4.19$	$\sum xy = 156.21$

$$\begin{aligned} \text{Correlation (r)} &= \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \\ &= \frac{5 \times 156.21 - 164.92 \times 4.39}{\sqrt{5 \times 5858.49 - (164.92)^2} \sqrt{5 \times 4.19 - (4.39)^2}} \\ &= \frac{57.05}{\sqrt{29292.45 - 27198.61} \sqrt{20.95 - 19.27}} \\ &= \frac{57.05}{59.27} \\ &= +0.96 \end{aligned}$$

Calculation of Probable Error (P.E.)

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

r^2	$1-r^2$	$0.6745 \times (1-r^2)$	$\sqrt{5}$	P.E.	6P.E.
0.9216	0.07840	0.05288	2.2361	0.0237	0.1419

APPENDIX - 32

Correlation between total and net profit of BOK

“000000000”

Year	Loan(x)	Net profit (y)	x^2	y^2	xy
06/07	9.69	0.26	93.90	0.0676	2.52
07/08	12.74	0.36	162.31	0.1296	4.59
08/09	14.94	0.46	223.20	0.2116	6.87

09/10	17.04	0.50	290.36	0.25	8.52
10/11	17.95	0.60	322.20	0.36	10.77
	$\sum x = 72.36$	$\sum y = 2.18$	$\sum x^2 = 1091.97$	$\sum y^2 = 1.0188$	$\sum xy = 33.27$

$$\begin{aligned} \text{Correlation (r)} &= \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \\ &= \frac{5 \times 33.27 - 72.36 \times 2.18}{\sqrt{5 \times 1091.97 - (72.36)^2} \sqrt{5 \times 1.0188 - (2.18)^2}} \\ &= \frac{8.61}{\sqrt{223.88} \sqrt{0.35}} \\ &= \frac{8.61}{8.85} \\ &= +0.97 \end{aligned}$$

Calculation of Probable Error (P.E.)

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

r^2	$1-r^2$	$0.6745 \times (1-r^2)$	$\sqrt{5}$	P.E.	6P.E.
0.9409	0.0591	0.0399		0.0178	0.1070

APPENDIX - 33

Coefficient of variation of NIBL and BOK

Year	Profit (x)	Profit (y)	x^2	y^2
06/07	501	262	251001	68644
07/08	696	361	484416	130321
08/09	900	461	810000	212521

09/10	1265	509	1600225	259081
10/11	1176	605	1382976	366025
	$\sum x = 4538$	$\sum y = 2198$	$\sum x^2 = 4528618$	$\sum y^2 = 1036592$

“000000”

NIBL

$$\begin{aligned}
 \text{Standard deviation } (\delta) &= \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2} \\
 &= \sqrt{\frac{4528618}{5} - \left(\frac{4538}{5}\right)^2} \\
 &= \sqrt{905723.6 - 823737.76} \\
 &= 286.33
 \end{aligned}$$

$$\begin{aligned}
 \text{Mean } (\bar{X}) &= \frac{\sum x}{n} \\
 &= \frac{4538}{5} \\
 &= 907.6
 \end{aligned}$$

$$\begin{aligned}
 \text{C.V.} &= \frac{\delta}{\bar{X}} \times 100 \\
 &= \frac{286.33}{907.6} \times 100 \\
 &= 31.55\%
 \end{aligned}$$

BOK

$$\begin{aligned}
 \text{Standard deviation } (\delta) &= \sqrt{\frac{\sum Y^2}{n} - \left(\frac{\sum Y}{n}\right)^2} \\
 &= \sqrt{\frac{1036592}{5} - \left(\frac{2198}{5}\right)^2} \\
 &= \sqrt{207318.4 - 193248.16} \\
 &= 118.62
 \end{aligned}$$

$$\text{Mean } (\bar{Y}) = \frac{\sum y}{n}$$

$$\begin{aligned} &= \frac{2198}{5} \\ &= 439.6 \end{aligned}$$

$$\begin{aligned} \text{C.V.} &= \frac{\delta}{X} \times 100 \\ &= \frac{118.62}{439.6} \times 100 \\ &= 26.98\% \end{aligned}$$