PRODUCTIVITY MEASUREMENT OF CREDIT POSITION IN NEPALESE COMMERCIAL BANKS

(Special reference to Bank of Kathmandu and Nepal Investment Bank)

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RECOMMENDATION

This is to certify that this thesis

Submitted by:

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Entitled:

PRODUCTIVITY MEASUREMENT OF CREDIT POSITION IN NEPALESE COMMERCIAL BANKS

(Special reference to Bank of Kathmandu and Nepal Investment Bank)

has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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VIVA – VOCE SHEET

We have conducted the viva – voce examination of the thesis presented

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And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the degree of ***Master in Business Studies (MBS)***

<u>Viva – Voce Committee</u>

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Member (Co-ordinator: MBS Program) ………………………………..

Date : ………………………

ACKNOWLEDGEMENT

This research study **"PRODUCTIVITY MEASUREMENT OF CREDIT POSITION IN NEPALESE COMMERCIAL BANKS** ***(Special reference to Bank of Kathmandu and Nepal investment bank)***" has been prepared for the partial fulfillment of requirement of the degree of Master of Business Studies (MBS). All the available data were incorporated at suitable place by using the tables and graphs.

During the course, I worked with sincerity and honestly. But beside my continuous effort, I also got unforgettable support from different people. So, firstly I would like to express my enormous gratitude to my respected supervisor Assoc. Prof. Manik Ratna Tamrakar for his guidance. I would also like to thank my other supervisor and coordinator of MBS programme Padma Kanya Campus, Lect. Neera Shrestha, for her guidance and understanding.

I found myself indebted to my family, friends for their valuable help and suggestions and continuously supported and encouraged me in course of preparing this thesis.

At last but not least I would like to express my thanks to my staff members of banks including central bank their getting information co-operations to complete this dissertation.

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DECLARATION

I hereby declare that the thesis work entitled **"PRODUCTIVITY MEASUREMENT OF CREDIT POSITION IN NEPALESE COMMERCIAL BANKS *(Special reference to Bank of Kathmandu and Nepal investment bank)*"** submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement of the degree of Master of Business Studies (MBS) under the supervision of Asssoc. Prof. Manik Ratna Tamrakar and Lect. Neera Shrestha of Padma Kanya Multiple Campus

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ABBREVEATIONS

C.V.	:	Coefficient of Variation
SD	:	Standard Deviation
CD	:	Credit Deposit
DPS	:	Dividend Per Share
EPS	:	Earning Per Share
F/Y	:	Fiscal Year
GDP	:	Gross Domestic Product
LTD	:	Limited
LLP	:	Loan Loss Provision
MPS	:	Market Price Per Share
NBA	:	Non Banking Assets
BOK	:	Bank of Kathmandu Ltd.
NIBL	:	Nepal Investment Bank Ltd.
NPA	:	Non Performing Assets
NPL	:	Non Performing Loan
NRB	:	Nepal Rastra Bank
T-BILLS	:	Treasury Bills
TU	:	Tribhuvan University
CRR	:	Cash Reserve Ratio
L\C	:	Letter of Credit

CHAPTER-I

INTRODUCTION

1.1 Background Introduction

Nepal is adopting mixed economic model to uplift economic growth rapidly in the global perspective of economic development. Its inherent assumption is state and private sectors complement each other in the development process over time. Nepalese economy is still agricultural dominated economy. It still has been considering economic and social development as the primary objective. The economic growth rate of the country is very low of 3.5% (2010). Per capita GDP of Nepal is Rs.22540, with vast inconsistency of income level in Rural and Urban areas of the country. The political inconsistency is the major barrier of high growth rate of the country. Lack of proper implementation of government planning in infrastructure development country is facing the lack of basic availability of economic development tools. However, the present context is improving and creating new opportunities for the business and commerce after the Royal Regime. Still lack of consciousness of political parties the environment of business and commerce of the nation remains same as past.

Commercial bank, established with the motive of making profit. It provides loans to business organization. Commercial banks used to provide short-term loan especially for working capital. But due to change in concept and increasing competition, now a day's commercial bank provide long-term loan for capital investment to business people or business organization. Commercial bank need to flow 12% of its total loan amount in deprived and agriculture sector including cottage and small industries. Commercial banks need to have remote branch in order to provide loan to the remote areas as directed Nepal Rastra Bank. Commercial Bank provides opportunity for the participation in the development process of the country via issuing shares and accepting deposits from them. Commercial bank can mobilize and invest its accumulated resources into field of deprived as well as trade commerce, industry, tourism & hydroelectricity project etc.

The history of modern banking starts after the establishment of Nepal bank limited in 1937(1994 B.S.). It is the first commercial bank of Nepal. The government owned 51% of the shares in the bank and controlled its operations largely. The structure and the whole banking system recently modernized and restructuring of governed owned commercial banks are taking place. The government owned banks like those that Agriculture Development Bank, Rastriya Banijaya Bank, and Nepal Bank Limited are major decentralized banks serving to local community, but the performances of those banks are not still good. Presently, altogether 30 commercial banks are participating in Nepalese financial market up to mid July 2010. Some other commercial banks are coming in to operation in near future.

Nepal Rastra Bank was established in 1956(14th Baishak 2013 B.S.). It is central bank of Nepal. It is one of the most important financial institutions in the modern economy. It is an agency of government. It has important public policy functions in monitoring the operation of financial system and controlling the growth of money supply. According to Rastra Bank Act 2012, the main objective of this bank is to issue the paper money as per necessity, controlling and directing the other bank and institution, working as a bank of governments. Its main objective is to formulate necessary monetary and foreign exchange policies in order to maintain the stability of price and balance of payment for sustainable development of economy and manage it. Promote stability and liquidity require in banking and financial sector. Develop a secure, healthy and efficient system of payment. Regulate, inspect, supervise and monitor the banking and financial system. It has to support entire banking and financial system of Nepal and to exchange its public credibility. According to Nepal Rastra Bank Act 2012, the major function of NRB is to issue bank notes and coins, formulate, implement monetary policy, formulate foreign exchange policies, determine foreign exchange rate, and exchange reserve.

Issue license to commercial banks and financial institutions to carry on banking and financial business, and to regulate, examine supervise and monitor such transactions. Act as a banker, advisor and financial agent of Nepal government. Act as the banker of a commercial banks and financial instruction and to function as the lender of the cost resort. Establish and promote the system of payment, clearing and settlement and regulate those activities.

1.2 Bank of Kathmandu Ltd

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. BOK wish to reiterate here that whatever activity we undertake; we put in conscious efforts to glorify our corporate slogan, "We make your life easier". BOK would also like to elucidate that Bank of Kathmandu is committed to delivering 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. To achieve these, BOK has been focusing on its set objectives right from the beginning.

BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. Public owns it. BOK also aims to facilitate the nation's economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning. Its major objective is to contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive areas.

1.3 Nepal Investment Bank ltd.

Nepal Investment Bank Ltd (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French collaborate holding 50%of capital of NIBL, was Credit Agricole Indosuez, a subsidiary of the one the largest banking group in the world. With the decision of Credit Agricole Indosuez, a group of companies comprising of bankers, professionals, industrialists and businesspersons, had acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez In Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. Agreement of bank's AGM, NRB & company Registrar's office with the following shareholding structure.

A group of companies holding 50%of the capital

- Rastriya Banijaya Bank holding 15%of the Capital
- Rastriya Beema Sansthan holding 15% of the Capital
- The remaining 20% being held by the General Public

1.4 Background of Credit Management

Credit management is term used to identify accounting functions usually conducted under the umbrella of accounts receivables. Essentially, this collection of process involves qualifying the extension of credit to a customer. Credit management of Commercial Banks serves as an excellent way for the business to remain financially stable. Credit policy refers to the framework to determine whether or not to extend credit and how much credit to extend. The credit policy decision of a bank has two broad dimensions: Credit Standards and Credit Analysis. A firm has to establish and use standards in making credit decision, develop appropriate sources of credit information and methods of credit analysis. 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 exposures. 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 and most obvious source of credit risk, however, other sources of credit risk exist throughout the activities of a bank, including in the banking book, and in the trading book, and both on and off balance sheet. Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances; interbank transactions, trade financing, foreign exchange transactions, guarantees, and the settlement of transactions.

1.5 Objective of the Study

The objective of this study is to achieve an insight in to the credit position of the commercial bank Credit regarding of NRB directives as the central bank of Nepal governments. The effective management of credit risk is a significant component of a comprehensive approach to risk management and crucial to the long-success of any commercial banking organization. Following are the major objectives of the study:

- To explore the productivity measurement of credit position OF BOK and NIBL
- To inspect the level of the non-performing loan investments that exists within the banking industry.
- To review the employment of loan in different sectors by commercial bank.
- To analyze the lending policy of Nepalese commercial banks with the help of BOK and NIBL.
- Provide suggestions for future betterment of credit management system in Commercial banks.

1.6 Statement of the Problem

The problem toward which this study is directed to identify credit position of commercial bank of Nepal, Within the area of the proposed study, there exist a large number of problems regarding the commercial banks, services they offer, and their relationship with the concerned individuals, groups, and organizations. Credit management is affected due to a host of factors i.e. lack of clearness in the financial statements, permissive banking practices such as multiple banking contributing to diversion of funds, flight of capital, over financing etc., absence of risk based pricing methodologies, customer risk rating models, absence of credit rating agencies, independent credit information bureau, credit risk transfer instruments, lack of transparency among the banks and fail in exchange of information on the business entities etc. These contributed for higher level of impaired debt specifically in the banking sector.

Non-performing loans is the major problems for all the banks of Nepal. Two governments owned banks have the higher ratio of Non-performing loans than any other banks. Nonperforming loan process for recovery of the dues through public auction of the securities, quite often thwarted by expert restraint orders from the Judiciary and enormous time is involved to vacate the restraint orders. Financial sector reform programs are not being able to achieve the expected target. Inadequacy of law to deal with financial crimes like cheating, fraud etc. is also a problem for credit management.

There is concentration of credit in certain areas and limited investment opportunities for the commercial banks. Generally, it is accepted that disadvantages sectors in the economy such as the farmer and the small business have been neglected by the banking industry. In other words, such sectors in the economy are not receiving the financial support as commercial banks hesitate to be involved in these sectors where they do not see adequate profit.

The following questions were put for the present study

- Is concentration of credit in certain areas and limited investment opportunities for the commercial banks?
- Is Non-performing loans the major problems for all the banks of Nepal?
- What are the factor that affect Credit management of Nepalese commercial banks?
- Is Financial sector reform programs are not being able to achieve the expected target?
- Is the credit position of commercial bank of Nepal unfavorable?

1.7 Limitations of the Study

The main source of the data is from banks publications which may not reliable because they may publish reports according to their profit policy and their market position. Following are the limitation of the study.

- The study will be based basically on the past data (Secondary Data).
- This study is more specific in productivity measurement of credit position analysis.
- Out of 32 commercial banks only two sample i.e. NIBL and BOK are drawn.
- The study is covered only for the five fiscal years from 2006/07 to 2010/11

1.8 Organization of the Study

This research has been organized in the following manner:

Chapter I – Introduction: The first chapter deals with introduction. This includes background, statement of problem, focus of study, objectives of the study, and limitation of the study, review of literature and research methodology.

Chapter II – Review of Literature: Different books, journal, periodicals, review of various Journals, books, published or unpublished reports, articles and previous thesis are shown in this chapter.

Chapter III – Research Methodology: This chapter clarifies the nature of the whole research. It includes, research design, sources of data and collection procedure etc. similarly, data are analyzed using different tools and techniques and all of these techniques are briefly defined in this chapter.

Chapter IV – Presentation and Analysis of Data: The fourth chapter presents the data collected different sources. In this chapter, the collected data were tabulated and analyzed by the use of various statistical tools, graphs and figure. Based on the data analysis, major findings has been performed.

Chapter V – Summary, Conclusion and Recommendation: In the fifth chapter summaries the main conclusions and offers suggestions i.e. recommend for further improvement.

After completion of these five chapters, a list of literature that reviewed earlier is included alphabetically in bibliography. Likewise, data, information, calculation sheet etc are incorporated in appendix.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature is related to examine and review some related to books, articles, published and unpublished different economic journals, bulletins, magazines, newspapers, and web sites. The purpose of reviewing the literature is to develop some expertise in one's area, to see what new contributions can be made, and to receive some ideas for developing a research design. Thus, the previous studies cannot be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. In short there is a significant important of review of literature.

2.1. Conceptual Review

A commercial Bank is business organization that receives and holds deposits of fund from others, makes loans or extends credits and transfers funds by written order of deposits. Commercial Bank is a corporation, which accepts demand deposits subject to check and makes shorts-term loans to business enterprises, regardless of the scope of its other services. A commercial banker is a dealer in money and substitute for money such as checks or bill of exchange. It also provides a variety of financial services. Commercial bank Act 2031 B. S. of Nepal has defined that "A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loans and performs commercial banking functions and which is not a bank mean for cooperative, agriculture, industries for such specific purpose."The Bank and Financial Development Institutions Ordinance, 2060 has accumulated the five banking acts including commercial bank Act 2031, which defines the bank with respect to their transactions. This Act is trying to categories the banking institutions in two ways that is based on their transactions. According to this Act, "Bank is the institution which performs its transaction under the provisions mentioned on section 47 of this Act."

This Act has laid emphasis on the functions of commercial bank while defining it. Commercial banks provide short- term debts necessary for trade and commerce. They take deposits from the public and grant loans in different forms. They purchase and discount bills for exchange, promissory notes and exchange foreign currency. They discharge various functions on the behalf of their customers if they are paid for their services. Financial activities are necessary for the economic development of the county and commercial banking in this context is the heart of financial system. Optimal investment decision plays a vital role in each organization. However, especially for the commercial banks and other financial institutions the sound knowledge of investment is the most because this subject is relevant for all surrounding that mobilize funds in different sectors in view of return.

As it is concerned to the commercial banks and other financial institution, they must mobilize (i.e., investment in different sectors) their collections (deposits) and other funds towards the profitable, secured and marketable sectors so that they will be in profit. For this purpose, these banks and financial institutions should gather the sufficient information about the firm (client) to which supposed to be invested, these information include as financial background, nature of business as well as its ability to pay the loan back. These all information should be gathered from the viewpoint of security.

The income and profit of the bank depend upon the lending procedure applied by the bank. Moreover, lending policy and investment in different securities affect the income and profit. In the investment procedures and policies, it is always taken in mind that "the greater the credit created by the bank, the higher will be the profitability". A sound lending and investment policy is not only prerequisite for bank's profitability but also crucially significant for the promotion of commercial savings of a developing country like Nepal. The sound policies help commercial banks maximize quality and quantity of investment and thereby, achieve the own objective of profit maximization and social welfare. Formulation of sound investment policies and harmonized and planned efforts pushes frontward the forces of economic growth. Commercial banks as financial institutions perform a number of internal functions. Among them, providing credit is considered as most important one. "Commercial banks bring into being the most important ingredient of the money supply, demand deposit through the creation of credit in the form of loan and investment" (Course, 1963:21).

2.1.1 Functions of Commercial Banks

The business of commercial bank is primarily to hold deposits and make credits and investments with the object of securing profits for its shareholders. Its primary motive is profit; other considerations are secondary. The major functions of commercial banks are as follows: Accepting Deposit, Advancing credits, Agency Services, Credit Creation, Financing of Foreign Trade, Safe keeping of valuables, Making Venture Capital Credits, Financial Advising and Offers Security Brokerage Services. They also function as issue of commercial paper, bond and debenture; invest in government security as well as underwriting function under rules and regulation of their Central Bank. Assist in foreign Trade: The bank assist the traders engaged in foreign trade of the country. He discounts the bills of exchange drawn by exporters on the foreign importers and enables the exporters to receive money in the home currency. Similarly, also accepts the bills drawn by foreign exports.

Commercial bank offers Investment Banking and Merchant Banking Services: Banks today are following in the footsteps of leading financial institutions all over the globe in offering investment banking and merchant banking services to corporations. These services include identifying possible merger targets, financing acquisitions of other companies, dealing in security underwriting, providing strategies marketing advice and offering hedging services to protect their customers against risk from fluctuating world currency prices and changing interest rate. In this way, they support the overall economic development of the country by various modes of financing.

2.1.2 Concept of productivity

Productivity is regarded as the most income generating assets especially in commercial banks. Credit is measure the productivity management of commercial banks. Hence, credit is regarded as the heart of the commercial banks in the sense that; it occupies large volume of transactions; it covers the main part of the investment; the most of the investment activities based on credit; it is the main factor 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 and industry, the government will get tax from them and help to increase national economy. It is the security against depositors. It is proved from very beginning that credit is the shareholders wealth maximization derivative.

However, other factors can also affect profitability and wealth maximization but the most effective factor is regarded as credit. It is most challenging job because it is backbone in commercial banks. Thus, effective management of credit should be seriously considered. Management is the system, which helps to complete the every job effectively. Credit management is also the system, which helps to manage credit effectively. In other words, credit management refers management of credit exposures arising from loans, corporate bonds and credit derivatives. 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 and 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, loans are the largest and most obvious sources of credit risk. However, other sources of credit risk exist through out the activities of a bank, including in the banking book, and in the trading book, and both increasingly facing credit risk in various financial instruments other than loan including acceptances, inter bank transactions, guarantees, and the settlement of transactions *(Vaidya, 2003:145).*

The credit policy of a firm provides the framework to determine whether or not to extend credit and how much credit to extend. The credit policy decision of a bank has two broad dimensions; credit standards and credit analysis. A firm has to establish and use standards in making credit decision, develop appropriate sources of credit and methods of credit analysis. In the field of banking transaction, the term of credit referred to the loan. Credit is regarded as the most income generating assets especially in commercial banks. Credit is regard as the heart of the commercial banks in the sense that; it occupies large volume of transactions; it covers the main part of the investment; the most of the investment activities based on credit; it is the main factor for crating profitability; it is the main source of creating profitability.

Productivity management is also a system, which helps to manage credit effectively. Credit management refers management of credit exposures arising from loan, corporate bonds and credit derivatives. Credit exposures are the main sources of investment in commercial banks, and returns on such investment is supposed to be main sources of income. Credit is financial assets resulting from delivery of cash or other assets by a lender to a borrower return for an obligation of repay on specified date on demand. Management is the system, which helps to complete the every job effectively. Credit management is also the system, which helps to manage credit effectively. In other words, credit management refers management of credit exposures arising from loans, corporate bonds and credit derivatives. 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 and 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 interbank 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.

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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 on demand. Banks generally grants credit on four ways (Chhabra and Taneja, 1991).

Overdraft

Cash Credit

Direct Credit

Discounting of Bills

2.1.3 Types of credit

There are different types of credit that are mentioned below.

Overdrafts:

It denotes the excess amount withdrawn over their deposits. In other words bank provide some limited amount of money to their valuable customer for their believeness is overdraft. It is an arrangement with a bank allowing one to draw more money than there is in company's accounts.

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 the condition of the credit sale, especially with regard to the payment arrangements. Firms need to determine when the credit period begins, how long the customer has to pay for the credit purchases before the account is considered. It is principle form of medium term -debt financing, which normally have maturity of 1to 8 years. Barely and Myers urge that bank credits with maturities exceeding 1 years are called term credits. The firm agrees to pay interest based on the bank's prime rate and to repay principle in the regular installments. Special patterns of principle payments over time can be negotiated to meet the firm's special needs (Richard, 1996:89).

Working Capital Credit

Working capital denotes the difference between current assets and current liabilities. Normally, 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.

Hire Purchase Financing (Installment Credit)

Hire-Purchase credits are characterized by periodic repayment of principle and interest over the maturity of the credit. Hirer agrees to take the goods on hire at a stated rental including their repayment of principle 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 credits on a variable rate basis. It can be secured and unsecured as well as direct and indirect installment credit (k.c.;2005:76).

Housing Credit (Real Estate Credit)

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

Credit Cards and Revolving Lines of Credit:

Banks are increasingly utilizing cards and revolving lines of credit to make unsecured consumer 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 administration 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.

Bank Guarantee:

It 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 (Johnson, 1940:85).

2.1.4 Factors Affecting Credit Policy

A credit policy is a set of decisions that includes a firm's credit standards. Setting a credit standards implicitly require a measurement of credit quality that is define in terms of the probability that a customer will default, hence not repay the credit. The estimation of probability for a given customer is for the most part of the judgment. Credit evaluation is a well- established practiced, and a good credit manager can make reasonably accurate judgments of probability of default exhibited by different classes of customers. Here are some factors, which affects the credit policy of the commercial banks. Before setting a credit policy, credit managers need to analyze the following factors carefully.

Industry Environment

It determines the nature of the industry structure, its attractiveness and the company's position within the industry. It helps to determine the company's overall positions on behalf of environment.

Financial Condition

It refers to the borrower's capacity to repay through cash flow as the first way out basis. Collateral liquidation is assessed. Furthermore, the possibility to fall back on income of sub concerns in case of financial crisis of the company condition there after repayment capacity assessed.

Management Quality

It determines the integrity, competence and nature of alliances of borrower's management team, weakness in replacement needs to be evaluated.

Technical Strength

It determines the strength and quality of the technical support required for sustainable operation of the company in terms of availability of work force and technology used. Appropriate technical competencies of the workers, the viability of the technology uses, availability of after sales services, cost of maintenance and replacement need to be evaluated**.**

Security Realization

It determines the control over various securities obtained bank to the loan provided excitability of the security documents and present value of the properties mortgaged with the bank. Weakness in security threatens the bank is secondly way out.

Lending Criteria

Best credit standard need to be set for lending criteria. Credit standards refer to the strength and credit worthiness a customer exhibit in order to quality for credit. The firm's credit standards are applied to determine which customers qualify for the regular credit terms and how much credit each customer should receive. The methods used to measure credit quality are concerned with evaluating the five areas. Generally, they are considered important to determine a customer's credit worthiness, whether the customer is business or individual.

Character:

It refers to the likelihood that a credit customer will try to repay the debt. Character of a borrower is the most important issue in credit evaluation performances, both for businesses and for individuals. Credits reports will be discussed in details to determine credit reputation; talking with its bankers, its suppliers, its customers and even its customers. It is extremely important in determining whether the credit will be granted.

Capacity:

It is subjective judgment of a customer's ability to pay. Capacity is a measure of the ability of the of the credit customers to generate cash sufficient to service the debt. Evaluation of this factor is based on primarily on the cash income received by the borrower. It is gauged in part by the customers past record can be observations of firms' plants and stores.

Capital:

It is measured by the general financial condition of the borrower as indicated by an analysis of financial statements. Special focus is given to the ratios such as current ratio, debt to assets ratio, time interest earned ratios etc.

Collateral:

It is the security proposed by the borrower. It is represented by assets offer to obtain credit by borrowers.

Conditions:

Condition both refers both general economic trends to special developments in certain geographic regions. It may affect the borrower's ability to meet its obligations.

2.1.5 Features of Sound lending Policy

The income and profit of the commercial banks depend upon its lending procedure. The greater the credit created by bank, the higher wills the profitability. A sound lending policy is not only pre-requisite for commercial banks profitability, but also crucially significant for the promotion of commercial saving of backward country like Nepal. Some features of Sound lending policy are considered as under.

Safety

Safety is the most important principle of good lending. When a banker lends, he must feel certain that the advance is safe; that is, the money will definitely come back. For example, if borrower invests the money in an unproductive or speculative venture, or if the borrower himself is dishonest, the advance would be in jeopardy. Similarly, if the borrower suffers losses in his business due to his incompetence, the recovery of the money may become difficult. The banker ensure that the money advanced by him goes to the right type of borrower and is utilized in such a way that it will not only be safe at the time of lending but will remain so throughout, and after serving a useful purpose in the trade or industries where it is employed, is repaid with interest.

Liquidity

It is not enough that the money will come back: it is also necessary that it must come back on demand or in accordance with agreed terms of repayment. The borrower must be in a position to repay within a reasonable time after a demand for repayment is made. This can be possible only if the money is employed by borrower for short-term requirements and not locked up in acquiring fixed assets or in schemes, which take a long time to pay their way. The source of repayment must also be definite. The reason why bankers attach as much importance to “liquidity” as to “safety” of their funds is that a bulk of their deposits is repayable on demand or at short notice.

Purpose

The purpose should be productive so that the money not only remains safe but also provide a definite source of repayment. The banker must closely analyze the purpose for which the money required, and ensure, as far as he can, that the borrower applies the money borrowed for a particular purpose accordingly.

Profitability

Equally important is the principle of profitability in bank advances. Like other commercial institutions, banks must make profit. They have to pay interest on deposits received by them. They have to incur expenses on establishment, rent, stationery, salary and other operating expenses so on. They have to make provision for depreciation of their fixed assets, and also for possible bad or doubtful debts. After meeting all these items of expenditure that enter the running cost of banks, a reasonable profit must be made; otherwise, it will not be possible to carry anything to the reserve of pay dividend to shareholders. It is after considering all factors that a bank decides upon its lending rate.

Collateral/Security

It has been the practice of banks not to lend as far as possible except against security. Security cane considered as insurance. Security may be generally classified as personal and tangible, as well as primary and collateral. The banker carefully scrutinizes all the different aspects of an advance before granting it. At the same time, he provides for an unexpected change in circumstance, which may affect the safety or liquidity of advance.

Legality

Legal securities will bring out many problems for the investor. Commercial banks must follow the rules and regulation as well as different directions issued by Nepal Rastra Bank, Ministry of Finance and other while mobilizing its funds.

Spread

Another important principle of good lending is the diversification of advances. An element of risk is always present in every advance, however secure it might appear to be. In fact, the entire banking business is one of taking calculated risks and successful banker is an expert in assessing such risks. He is keen on spreading the risks involved in lending, over a large number of borrowers, over a large number of industries and areas, and over different type of securities.

National Interest

Even when an advance satisfies al the formerly mentioned principles, it may still not be suitable. The advance may run counter to national interest. It in the changing concept of banking factors such as purpose of the advance, viability of the proposal and national interest are assuming greater importance than security, small borrowers and export-oriented industries

2.1.6 Lending / credit process

Commercial bank follows several steps to disburse loan to the borrowers. The lending policies might be different form one bank to another. In general, steps are as follows. Application: the needy are required to submit an application to the bank along with required documents. The documents required for credit proposal appraisal and processing by banks are as follows: Loan application, Citizenship certificate of applicant, Firm/ company registration certificate (if self employed) ,Income tax registration certificate (if self employed) Authenticated partnership deed in case of partnership firm, and memorandum and article of association in case of company Attested copy of board resolution in case of company resolved to avail loan and banking facilities form bank against the pledge, hypothecation, and mortgage of fixed property owned by company or property of third party named. Letter of authority authorizing to sign loan deed and other relevant document paper, which are deemed necessary while dealing with bank on behalf of firm/company. Feasibility report/scheme (for new project)

2.1.7 Lending appraisal and possessing

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 answer

Test 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 country?

Generally, the project appraisal involves the investigation from the following aspects (Gautama,

2004: 258):

a. Financial aspect

b. Economic aspect

c. Management/Organizational aspect

d. Legal aspect

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

2.2 Review of NRB Directives regarding Credit Management of Commercial Banks

Various rules, regulations, Acts and directives are reviewing while preparing the concept of this study. Different types of directives, which are issued for the commercial bank to manage the credit in the proper way. Obviously, these directives and actions towards the commercial banks by NRB are playing the great role for the comparative analysis of credit management of the commercial bank.

2.2.1 NRB Rules Regarding Fund Mobilization of Commercial Banks

To mobilize bank's deposit in different sectors of the different parts of the nation to prevent them from the financial problems, central bank (NRB) may establish a legal framework by formulating various rules and regulations (prudential norms). These directives must have direct or indirect impact while making decisions. Rules and regulations formulated by NRB in terms of investment and credit to priority sector, deprived sector, other institution, single borrower limit, CRR, loan loss provision, capital adequacy ratio, interest spread, productive sector investment etc. of commercial bank is directly related to the fact that how much fund must be collected as paid up capital while being established at a certain place of the nation, how much fund is needed to expand the branch and the counters, how much flexible and helpful the NRB rules are important. Here we discuss only those, which are related to investment function of commercial banks. The main provisions established by NRB in the form of prudential norms in above relevant area are briefly discussed here:

2.2.2 Directives Relating to Single Borrower Credit Limit

With the objective of lowering the risk of over concentration of bank loans to a few big borrowers and to increase, the access of small and middle size borrowers to the bank loans. NRB has directed commercial banks to set an upper limit for single borrower limit. According to the directive, commercial banks may extend credit to single borrower or group of related borrowers in such a way that the amount of Fund Based Loans and advances up to 25% of the core capital and Non Fund off the balance sheet facilities like letters of credit, guarantees, acceptances, commitments, is up to 50% of its Core Capital Fund.

In case of hydropower, electricity transmission line and cable car the limit is up to 50% of the core capital but there should be power purchase agreement with the related organization. This rule is not applicable in the loan against fixed deposit, government bonds and guarantee of World Bank, Asian development bank, international monetary fund, and internationally rated banks. In the case of advances and facilities to be used for the purpose of importing specified merchandise by the following public corporations, the exemption in the limit of credits and facilities is not applicable:

Name of corporation	**Merchandise**
Nepal Oil Corporation	Petrol, Diesel, Kerosene, and LPG gas
Agriculture Input Corporation	Fertilizer, Seeds
Nepal Food Corporation	Cereals

2.2.3 Directives Relating to Loan Classification and Loan Loss Provisioning

Banks should classify outstanding loans and advances based on aging of principal amount. Loans and advances should be classified into the following four categories:

a) **Pass:** Loans and Advances whose principle amount are not past due and the past due for a period up to three months shall be included in this category. These are classifies and defines as Performing Loans.

b) **Substandard:** All loan and advances that are past due for a period of 3 months to 6 months shall be included in this category.

c) **Doubtful:** All loans and advances, which are past due for a period of 6 months to 1 year, should be included in this category.

d) **Loss:** All loans and advances which are past due for a period of more than 1 year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

Loans and advances falling in the category of sub-standard, doubtful and loss are defined as non-performing loan. Here, if it is appropriate in the views of the bank management, there is not restriction in classifying the loan and advance from new risk category to high-risk category. For instance, loans falling under sub- standard category may be classified in to doubtful or loss and loans falling under Doubtful may be classified into loss category. In addition, the term Loans and Advance also include Bills Purchased and Discounted.

Loan Loss Provisioning

The Loan Loss Provisioning, based on the outstanding loans and advances and bills purchased as above should be provided as follows:

Classification of Loan	Loan Loss Provision
Pass	1%
Sub-Standard	25%
Doubtful	50%
Loss	100%

Loan loss provision set aside for performing loans is defined as General Loan Loss Provision and loan loss provision set aside for non-performing loan is defined as Specific Loan Loss Provision.

Before this arrangement was in force i.e. up to 2057.3.31, the classification and provisioning of loans and advances as per circular dated 2047.11.8 was as follows:

Classification of loans	**Time**	**Provision Required**
Good	Not overdue	1%
Acceptance	Overdue up to 1 month	1%
Evidence of Sub-Standard	Overdue 1-6 months	5%
Sub Standard	Overdue 6 month-1 year	25%
Doubtful	Overdue 1 to 5 years	50%
Bad	Overdue more than 5 years	100%

2.2.4 Requirement to Extend Loans and Advances to Deprived Sector

Commercial banks are required to extend minimum 3% of their total loans and advances in deprived sector. It includes low income and particularly socially backward women, tribes, lower caste, blind, hearing impaired and physically handicapped persons and squatter family. All credit extended for the enlistment of the economic and social status of deprived sector unto the limit specified by NRB is termed as "Deprived Sector Credit". Low-income person means:

- None of the member of the family has received permanent employment and has not received credit facility from the Banks/Financial Institutions.
- Members of the undivided family holding 6 Anna or 10 Dour of land within the area of Metropolitan Corporation or sub- Metropolitan Corporation and 20 Ropani or 1.5 Bight of land in other areas and/or members of undivided family who has been using the land belonging to Gothic as tenant and
- Annual per person income of up to Rs 5,500.00.

It is considered as integral part of priority sector credit comprises micro credit program and project also. It includes the advances up to 60,000 as per borrower family.

Following activities of commercial banks in income generating employment oriented

Program:

a) Direct investment by commercial banks in income generating employment oriented program.
b) Investments made by the commercial banks in share capital of rural development banks
c) Advances to rural development banks and other development banks engaged in the same poverty alleviation programs.
d) Advances to co-operatives, non-governmental organizations and small farmer co-operatives approved by NRB for carrying out banking transactions.
e) Advances to the Micro Finance institutions, rural development banks and other financial institutions, co operatives and nongovernmental organizations approved by NRB for financial intermediation.
f) Providing loan up to Rs 150,000 to persons going for foreign employment without collateral has been arranged. Such loan provided by commercial banks will be eligible for inclusion under deprived sector credit
g) Examination of the fulfillment of deprived sector lending shall be made at the end of each quarter (i.e. mid-Oct, mid-Jan, mid- Apr and mid-July) based on total outstanding loan and advances (except investment) as of immediately preceding six months. On the failure of fulfilling such lending, penalty in shortfall amount at the maximum prevailing lending rate of the bank during the examination period shall be imposed under sub section 2 of section 32 of NRB act, 2011. If the Priority sector lending is fulfilled, bit the deprived sector is not, the penalty is imposed on shortfall amount and if both sector lending is not fulfilled, then the penalty is imposed on greater shortfall amount for one sector only.

2.2.5 Directives Relating to Capital Adequacy Norms for Commercial Banks

Maintenance of the minimum capital fund: The total capital fund is the sum of core capital and supplementary capital.

Based on the risk-weighted assets, the banks should maintain the prescribed proportion of minimum capital funds as per the following timetable:

Year	Core capital	Capital fund
For FY 2064/65	5.5%	11%
For FY 2065/66	6.0%	10.0%
For FY 2066/67	6.0%	10.0%

2.2.6 Directives Relating to Interest Rates

Commercial banks itself can determine interest rate of deposits and the loan and advances. They have to submit the interest rate details to NRB within seven days of every quarter end. Commercial banks have to publish their interest rate of deposits and loan and advances once in every six months in national level daily newspaper.

2.2.7 Directives Relating to Cash Reserve Ratio Requirements (CRR)

To ensure adequate Liquidity in the commercial banks, to meet the depositors' demand for the cash at any time to inject the confidence in depositors regarding the safety of their deposited funds, commercial banks are required to have maximum CRR. In this regard, Nepal Rastra Bank has directed commercial banks to deposit minimum 5.0% of current and banks.

2.2.8 Directives to Raise Minimum Capital Fund

Nepal Rastra Bank has directed all the commercial banks under operation and established to operate in national level and having low capital base have been directed to raise their capital fund at a minimum level of Rs Two billion by the end of the fiscal year 2070. The amount under the headings of the paid-up capital, general reserve, share premium, non-redeemable preference share and retained earning included in the core capital fund to the extent of the minimum capital funds of Two billion.

2.2.9 Directives Regarding Investments in Shares and Securities by Commercial Banks

Banks should prepare written policy relating to investments in the shares and securities of other organized institutions. Such policies should be implemented only under the approval of the Board of Directors. There should be no restrictions as to investment by the banks in the securities of organized HMG and securities issued by Nepal Rastra Bank. Banks may invest in shares and securities of any one organized institutions not exceeding 10% of the paid up capital of such organized institution.

2.2.10 Important Terminologies

In this section of the study efforts have been made to clarify the meaning of some important terms frequently used in this study, they are given as]

a. Deposits

Deposits mean the amount in a current, saving or fixed account of a bank or financial institution. For a commercial bank, deposit is the most important source of liquidity for bank's financial strength; it is treated as a barometer. In the word of Eugene, "A bank deposits are the amounts that it owes to its customers" deposits are the lifeblood of the commercial banks. Through they constitute the great bulk liabilities; the success of a bank greatly depends upon the extent to which it may attract more and more deposits. The deposit of a bank is affected by various factors like:

- Types of customers
- Physical facilities of bank
- Management and accessibility of customers
- Types and range of the services offered by the bank

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

b. Loan and Advances

Loan advances and overdraft are the main source of income for a bank. Bank deposits can be crossed beyond a desired level but the level of loans, advances, overdrafts will never cross it, the facilities of granting loan, advances, and overdrafts are the main services in which customers of the bank can enjoy. Funds borrowed from banks are much cheaper than those borrowers from unorganized moneylenders are. The demand for loan has excessively increased due to cheaper interest rates; further an increase in economic and business activities always increase the demand for funds. Due to limited resources and increasing demand for loans, there is some fear those commercial banks and other financial institutions too. It may take more preferential collateral while granting loans causing unnecessary botheration to the general customers. Such loans from these institutions would be available on special request only and thee is a chance of utilization of resources in economically less productive fields. These are the undesirable effects of too low interest rate.

c. Investment on Government Securities, Shares and Debentures

Commercial banks invest on government securities, shares and debentures to earn some interest and dividend. This is the secondary sources of income to the bank. A commercial bank may extend credit by purchasing government securities, bond and shares for several reasons, some of them are:

- It may want to space its maturities so that the inflow of cash coincide with expected withdrawals by depositors of large loan demands of its customers
- It may wish to have high grade marketable securities to liquidate, if its primary source of reserves becomes inadequate
- It may also be forced to invest because the demands foe loans have decreased of is mot sufficient to absorb its excess reserves.

However, investment portfolio of commercial bank is established and maintained with a view to the mature of bank's liabilities. That is because depositors may demand funds in great volume without previous notice to banks; the investment must be of a type that can be marketed quickly with little of no shrinkage in value.

d. Investment on Other Companies Shares and Debentures

Due to excess funds but least opportunity to invest those funds in much more profitable sector and to meet the requirement of Nepal Rastra bank directives many commercial banks have to utilize their funds to purchase shares and debentures of many other financial and non-financial companies. Nowadays, most of the commercial banks have purchased the shares of regional development bank, NIDC and other development banks,

e. Other Use of Funds

Commercial banks must maintain the minimum bank balance with Nepal Rastra Bank as prescribed by the bank. Similarly, they have to maintain the cash balance in local currency in the value of the bank. Again, a part of the funds should be used for bank balance in foreign bank. and to purchase fixed assets like land, building, furniture, computers stationery, etc.

f. Off-balance Sheet activities

Off- balance sheet activities cover the contingent liabilities etc. Off- balance sheet activities involve contracts for future purchase or sale of assets and all these activities are contingent obligations. These are not recognized as assets of liabilities in balance sheet. Some good examples of these items are letter of credit (L C), letter of guarantee, commission, bills for collections etc. nowadays, such activities are stressfully highlighted by some economists and finance specialists to expand the modern transactions of a bank. These activities are very important, as they are the good source of profit to the bank, though they have risk.

g. Lending and Investment Procedures

The income and profit of the bank depends upon its lending procedures, lending policy and investment of its fund in different securities. The greater the credit created by the bank, the higher will be the prodigality. A sound lending and investment policy is not only perquisite for banks profitability, but also crucially significant for the promotion of commercial saving of a backward countries like Nepal.

Some necessities or some of the main characteristics for sound lending and many authors as have given the investment policies, which must be considered by the commercial banks:

- Safety and security
- Profitability
- Liquidity
- Purpose of loan diversification
- Diversification
- Tangibility
- Legality

2.3 Review of Related Studies

2.3.1 Review of Relevant Articles and Journals

Tiwari, Gopal (2007), the article titled' *"Financial sector hobbled with chaos, fragility"* was published in the Himalayan times July 2007. He states that Nepal's financial sector is moving like a 'sinking boat'. According to him financial institution have failed in delivering beneficial services to needy people by developing credit giving centers in rural areas without which sustained economic growth is impossible. On the other hand banks and financial institution have enough liquidity but they are finding it difficult to find suitable places for investment. Problem such as insecurity lack of market research from banks, low investment opportunities, weak operational policies for carrying out financial transaction, among others have contributed to the problem of this sector .Despite central banks directives regulating banks and financial institution, private and government banks are functioning haphazardly Nepal bank limited (NBL) and Rastriya Banijya Bank (RBB), the two largest banks, occupy about 50 percent of the country's banking assets. An effective reform of these two is key to improved performance of the whole sector. The process currently underway to reform these two institutions, despite paying huge amounts to foreign experts, has not given expected results. Besides NBL and RBB, the non- performing assets (NPA) of some private banks also very high. If the government and central bank allow the financial sector reforms to focus only on RBB and NBL, it might become a futile effort. The current management of RBB and NBL has not been able to reduce their NPL even after two years, which have crossed over 60%. Earlier KPMG had calculated NPL at 30- 35 percent. The central bank itself says, despite efforts NBL has high NPLs and negative capital of RS 9.75 billion.

At last he suggests that the forthcoming budget should not remain a document merely but should address financial sector ills with a wide vision. He further recommended that in order to create a well regulated, prudent, market oriented, competitive and strong financial system in Nepal, the government should look to build up on its indigenous strength and improve upon its regional lies to improve its efficiencies.

Shrestha, Shiv Raj (2009), director of NRB in his article titled *"Modus Operandi of Risk Appraisal in Bank Lending"* in NRB journals has tried to highlight different aspects of credit risk management. As per his view, as the effective risk management is central to good banking, the tradeoff between risk and return is one of the prime concern of any investment decision whether long – term or short term. He concludes, "Effective credit risk management allows a bank to reduce risks and potential NPAs. It also offers other benefits. Once a bank understands their risks and their costs, they will be determining their most profitable business, thus price products according the risk. Therefore, the bank must have an explicit credit risk strategy and support by organizational changes, risk management technique and fresh credit process and systems. There are five crucial areas that management should focus on.

- Credit sanctioning and monitoring process
- Approach to collateral.
- Credit risk arises from new business opportunities
- Credit exposures relative to capital or total advances
  Concentration on correlated risk factors.

Apart from these, the bank management should regularly review all assets quality issues including portfolio composition, big borrower exposures and development in credit management policy and process i.e overall productivity. Improving risk management will not be easy or quick. However, Nepalese banker loves little choice. Hope fully, the bank adopt good risk management practices and will be able to reap both Strategic and optional benefit.

Bhattarai, Krishna D. (2010), has presented an article about the *"Non- Performing Assets (NPA) Management"*. According to him, a loan is a very easy term for a borrower when he has already taken and for a lender not availed. It is equally difficult for a borrower to avail and for lender to recover. From a banker's view, it is just like a stone to roll down from the top of the hill while sanctioning, but too difficult to roll back the same stone to the top of the hill while recovering. A loan not recovered within the given timeframe either in the form of interest servicing or principal repayment is called non-performing loan. There are other parameters as well to quantify a NPL. Security not to the extent of loan amount with specified safety margin, value of security not realizable, possession not as per the requirement of bank, conflict of charges are some of the reasons which causes difficulties while recovering the loan. According to him, NPL of a bank is like a cancer in a human body, which will collapse the entire bank if not taken care in time. This is an important discipline in banking to prevent the entire NPL or avoid situation for a loan to turn into NPL. Loan for banks is very essential to generate revenue for operational expenses as well as to provide return to the shareholders. When a loan advanced from good money turns into a bad loan, the chances of shareholders return as well as the survival of the bank is at stake. Ailing banks cannot portray a better image in public. When a public looses the confidence on a bank and does not deposit, the bank will be in the verge of extinction. Therefore, deposits are the essence for a bank. A loan disbursed as good loan does not turn into bad overnight. It has certain course to turn into bad. An efficient bank management can recover the loan before turning it into bad and can save itself from the unwanted catastrophe.

In conclusion, a borrowing may reflect one or all the above signals that may cause harm to the bank. There are few ways to protect bank from intentional defaulter but for those default caused by situations we can reschedule or restructure their facilities and help them to meet their debt obligation as per the cash flow they are having. Even an authentic loan that has been sanctioned with a good intention may turn into bad due to lack of proper management and carelessness. The bank will have to face heavy consequences in such a case. When a good loan, with all effort to protect it, turns into bad and the borrower's ability is not sufficient to repay it, he then tries to hide it from the bank and wants to be relieved temporarily. Such situations give some signals to the bank and these signals are called danger signals. The security given by a borrower may be ample for the exposure. However, the borrower from other source of business may not be able to generate substantial earning to service the debt. Bank has the right to auction the property and liquidate the loan but in doing so realization from the auction of the property is always less than the value of the assets. This will serve neither the purpose of bank nor the borrower instead cause loss to both.

The Boss (2011), in the magazine titled, "*Unavailability of wider arrays or sophisticated banking product"* published in the boss, it reported that Nepali banking sector is primarily focusing on plain vanilla banking product such as loans deposits , letter of credit s, guarantees, remittances, etc. there are value – added products like funded – risk participation and private labeling in the trade finance areas, options and other derivative products in global market / treasury area and remittance securitization in Nepal's most lucrative area of remittance . If our South Asian counterparts like Bangladesh, Pakistan, Srilanka and India are aggressively using these products, there is no reason why we cannot replicate these products in Nepal.

Nepal does not have electronic clearing system for realization of cheques and drafts on a real time basis. On the treasury front, unavailability of dealing room at the central bank and electronic dealing screen at treasuries of banks can be considered another hindrance. Although few banks have offered internet banking services, we still have a long way to go. The report concludes, the major problem that our banking sector is facing today has been due to high percentage of nonperforming loans, the major cause for which is non compliance of basic credit principles. Many other issues on non- compliance of corporate governance have come into light. Although this sector is comparatively more professional and transparent than other sectors, still there are some major problems which we need to overcome.

Kathmandu Post (2011), in a titled *"Loan Loss Provision Rises Notably"* which is published in the Kathmandu post, the reporter had made an endeavor to highlight some facts and figures regarding loan loss provision of commercial banks." The banking sector is witnessing a huge surge in loan loss provisioning reserves lately. The increment is primarily a result of a directives issued by Nepal Rastra Bank (NRB) in 2001 that introduces stringent loan provisioning criteria for commercial banks. As per data recently released by the central bank , that total loan loss provision in the country's banking sector increased from around Rs 8.75 billion in mid April 2008 to Rs 13.18 billion in mid April 20010. The increment is over 51 percent. As per the latest NRB figures a remarkable surge has been seen in loan provision of Nepal Bank Ltd (NBL). Against the provision of Rs 1.7 million in April 2002, the loan provision amount surged to a whopping of Rs. 7.33 billion in a year" it further states that apart from the two technically insolvent government invested banks, loan provision of other joint venture private banks has also risen significantly and the notable increments seen in the loan loss provisioning amounts is due to the eight point prudential directives that the central bank issued in mid 2001 to all commercial banks.

The reporter concludes that the directives laid down stringent guide lines relating to loan loss provision to ensure a good health of the overall banking system. The directive requires loans to be provisioned to the extent of cent percent if payment is defaulted for one year. Likewise, the directives requires loans to be provisioned if the extent of 25 percent if payment is defaulted for over three months and 50 percent of the period default extent beyond six months. The earlier directive required progressive provisioning of loans, but allowed a maximum of three years, unlike the present system of just a year, for loans to be provisioned to the extent of cent percent.

Shrestha Shiva Raj (2012) "*Preconditions for Effective Banking Regulation and supervision"* published in Souvenir RBB journals on 23rd January, 2012. Effective regulation and supervision promotes financially stability ensuring that BFIs operate in a safe and sound manner. The prudential regulation and supervision also recognizes that BFIs can facilitate growth in the economy and channel credit to its most efficient condition. The regulations on capital adequacy, liquidity requirement, loan loss provisioning, single obligor limit, licensing and the ownership control, governance, transparency, risk management requirements prompt financial stability. Stability in the banking and financial sector is critical in ensuring that the banking and financial system can provide fund based loans and non-fund based services to support business and households. At the same time, competition in the financial sector is necessary to ensure that the banking and financial services are available at affordable prices. The safeguarding of financial stability requires indentifying the sources of risk and vulnerability. Besides, it needs to assess whether the financial system is facilitating a smooth and efficient reallocation of financial resources from savers to investors and evaluate whether financial risks are being appropriately priced an efficiently managed. Inefficiencies in the allocation of capital or shortcomings in the pricing and weak risk management can compromise future financial stability as well as economic stability. Consequently, monitoring financial stability with a systemic perspective in a comprehensive manner is of major importance. BFI must have adequate risk management policies and policies and procedures and operate and operate with adequate capital. Skilled supervisors are the key to effective supervision. Supervisors must understand the risks inherent in financial activities and must be cap stable of assessing the adequacy of risk management policies, systems and practices of BFIs. The preconditions for effective BFI regulation and supervision are stable and sustainable macroeconomic policy, perfect public financial infrastructure, and effective market restriction procedure for solving banking problems and appropriate systematic protection or public safety network

The financial services industry continues to become more global in its research. This demands the development of innovative supervisory and co-operative arrangements. Supervision and regulation of BIFs contributes to ensuring stability in financial sector. The banking sector data analysis revealed that the performance of the large government owned banks are very much disappointing as their presence are associated with slower finance and economy development. The performance of some private sector BFIs also needs more timely correctively actions. The lower incentives for sound lending and recovery activities, credit misallocation, culture of non-payment of loan, poor governance etc has greatly influenced the performance of the banking system. Generally, Nepalese BFIs are facing the problem of poor governance and bad management, which is frequently evidenced by political intervention, poor landing practices, bad concentration of credit, massive connected landing, poor internal control and risk management.. The NRB supervision determines to eradicate instance of non-compliance brought to light a number of challenges.

2.3.2 Review of Previous Thesis

Shrestha, Gita (2006) *"A Study on lending performance with reference to NABIL Bank, SCBL and NIBL."* has following objectives, major findings & recommendations:

Objectives:

- To measure the banks lending strength and efficiency.
- To analyze the lending contribution in total profitability
- To study the loans and advances, profitability, deposits position of the commercial banks under study.

Major Findings:

- NIBL is best in utilizing its fund in relative term. SCBL is most successful in collecting high non-interest bearing deposits.
- SCBL has low loan loss provision than other two banks.
- Banks are able to decrease the on performing loans.
- The lending ratio is in increasing trends with increasing deposits they are able to capture the market shares.
- All the banks have good lending procedure preliminary screening is done in loan application, credit appraisal & financial position of the business & cash flows.

Recommendation

- Lending procedure should be short
- Need to invest in small entrepreneur's Development program and deprived sector

Shrestha, Sabina (2007) *"A Study on lending performance with reference to NABIL Bank, SCBL and NIBL."* has following objectives, major findings & recommendations:

Objectives:

- To measure the banks lending strength and efficiency.
- To analyze the lending contribution in total profitability
- To study the loans and advances position of the commercial banks under study.

Major Findings:

- NIBL is best in utilizing its fund in relative term. SCBL is most successful in collecting high non-interest bearing deposits.
- SCBL has low loan loss provision than other two banks.
- Banks are able to decrease the non performing loans.
- The lending ratio is in increasing trends with increasing deposits they are able to capture the market shares.

Recommendation

- All the banks should have good lending procedure preliminary screening is done in loan application.
- Banks should focus in credit appraisal and financial position of the business and cash flows.

Dhakal, Amrit (2008) entitled with *"Soundness of Credit Policies in Nepalese Commercial Banks"* has following objectives, major findings and recommendations:

Objectives:

- To study the relationship between deposits and lending.
- To study the classification, provision for loan/advances and its effect in profitability.
- To identify and analyze the problems and prospects of lending practice of Nepalese

Commercial Banks.

Major findings:

- Flow of lending depends upon the availability of low cost deposit in the market.
- Consumer financing and loan to manufacturing units are more secured than other sectors
- First preference of the Banks for security to loan is fixed assets collateral followed by Government Bonds
- Lengthy procedure in loan processing and tedious legal procedures is the key factor affecting growth of lending.
- Lack in follow-ups and irregular site visits lead to generation of NPA.

Recommendation

- Need to invest in productive areas that utilize natural resources
- Need to diversify lending in various sectors and explore un-banked sectors

Joshi, Prakash (2010) "*Credit Management of Commercial Banks in Nepal"* has following objectives, major findings and recommendations:

Objectives:

- To assess the lending patterns of selected Nepalese commercial banks.
- To explore the credit efficiency, analyze the industry environment and management quality in terms of credit practices
- To explore the relationship between loan & advances, NPA and Net profit

Major findings:

- Repayment is satisfactory in manufacturing sector compared to other sectors.
- Management quality and credit efficiency of selected banks was found satisfactory as they have standard credit practices.
- Credit disbursement and repayment has significant relationship. Flow of new credit depends upon the recovery status.

Recommendation

- Low cost deposits shall be increased and NPA shall be decreased to increase the

Profitability.

- Credit policies and procedures shall be tightened to ensure no further losses due to flow of new loans.

Shrestha, Nabin (2011) *"Credit Risk Management of Joint Venture Banks"* has following objectives, major findings & recommendations:

Objectives:

- To determine and analyze credit risk of joint venture banks in Nepal.
- To evaluate strength, weakness, opportunity and threats in credit management in commercial banks.

Major findings*:*

- Lending in one lucrative sector and concentration in urban areas only is increasing the risk of loss for the Bank Credit policies and practices were found satisfactory. Bank has opportunity to explore the virgin village market and SMEs.
- Most of the customers are satisfied with the Joint Venture Banks in terms of service and counseling regarding credit facilities.

Recommendation

- Banks should depend on written information for credit analysis.
- Banking services and lending shall be extended to rural areas and new untouched sectors as well.

Nepal, Suraksha (2012) "*Credit Management of Commercial Banks in Nepal"* has following objectives, major findings & recommendations:

Objectives:

- To explore the credit efficiency.
- To analyze the industry environment and manage quality in terms of credit practices.
- To explore the relationship with loan & advances, NPA and Net profit.

Major findings:

- Repayment is satisfactory in agro based industry and production sector compared to other sectors.
- Management quality and credit efficiency of selected banks found satisfactory as they have standard credit practices.
- Credit disbursement and repayment has significant relationship. Flow of new credit depends upon the recovery status.

Recommendation

- Low cost deposits shall be increased and NPA shall be decreased to increase the Profitability.
- Credit policies and procedures shall be tightened to ensure no further losses due to flow of new loans.

Shrestha, Sharadha (2012) "Comparative *credit management of Nepalese commercial banks* "(*with reference to NIBL and BOK)* has following objectives, major findings recommendations:

Objectives:

- To measure the Productivity of credit management in Nepalese commercial banks.
- To inspect the level of the non-performing loan investments that exists within the banking industry;
- To review the employment of loan in different sectors by commercial bank

Major Findings:

- Both of the commercial banks has managed properly sufficient CRR ratio maintaining above 5.5% as directed by NRB. NIBL and BOK have higher ratio that remain idle in their account. The idle fund could invest in high return generating areas of investment.
- Non-performing loan to total loan ratio of both banks are satisfying and in decreasing trend. Keeping in view that, the Nepalese market are free from international financial organization. However, they have to act upon harder to keep this ratio very low.

- Both of the banks have been able to reduce their non-performing loan ratio in recent years. As directed by the NRB banks should have some provision for the different types of loan.

Recommendations:

- Both of the banks have failed to maintain the standard of 50% all year. However, in recent year they are trying to maintain standard. They should maintain proper standard every year according to NRB directives.
- Both banks should focus on lending to the productive sectors rather than focus in productive lending and long-term projects like hydropower infrastructure building, construction and mining and service sectors that contributes in the economic growth.

2.4 Research Gap

Research is an ongoing process. There is not end in any topic. New things are identified, studied and analyzed through the help of previous research. Banks survive through collection of deposits and make lending to borrowers. Today liquidity position is current problem of Nepalese commercial banks. Nonperforming loan is becoming a great problem to all the commercial banks. All the commercial banks lend their deposits on different sectors of the economy. But all the sectors are not worsening in today's scenario. Even some sector is flourishing today. Sector wise lending portfolio of commercial banks is not effective. Bank can still lend without increasing their non performing asset if they focus on identifying the new market for lending and if they properly analyzed the proper sector for lending. Hence, this study “Productivity Measurement of credit position in Nepalese Commercial Banks “(with reference to BOK and NIBL) is differed from the previous researcher in sample size, time limit and probably new one. This thesis mostly focuses on identifying the liquidity position, credit policy, non-performing assets and loan and advance and sector wise lending portion of Nepalese commercial banks. The loan performance of different sectors will be also analyzed and studied in this study.

CHAPTER -III

RESEARCH METHODOLOGY

The topic of the research has been selected as "Productivity Measurement of credit position in Nepalese Commercial Banks". The sound objective of this study is to make the comparative analysis of credit in productivity measurement of sample two commercial banks i.e. NIBL and BOK to determine the conclusion from them. In order to reach and accomplish the objectives of the study, different activities are carried out and different stages are crossed during the study period. For this purpose, this chapter aims to present and reflect the methods and techniques those are carried out and followed during the study period. The research methodology adopted design for the present study is mentioned in this chapter which deals with research design, population and sample source of data, data collection procedure, processing, tabulation and presentation procedure and methodology.

Commercial Banks are the principal agents of the money market. Money market is the major instrument of the financial system. Thus, commercial banks and their lending operation obviously affect the national economy of the country. Moreover, lending and borrowing transaction that takes place through the commercial banks influence the daily livings of each national. In addition, at the same time from the government side, a great concern should be taken as the misleading by the commercial banks can violate the total economic system. Commercial bank's financial management system can contribute the economic growth too because these banks are the major contributor of financial market. In this way, the credit position of commercial banks in different sectors and their outcome might be considered as a keen subject to study (Joshi; 2001:50).

3.1 Research Design

The research study is carried out by collecting information regarding the borrowers, and the lending policies of the banks through personal interviews and written sources as well. Moreover, the study is conducted in the light of central bank's rules and regulations that stand for the commercial banks. The research study has adopted descriptive cum analytical research designs.

3.1.1 The Population

Till date central bank has licensed thirty-two of commercial banks to be established. Some of them are as follows which are taken as the population for the study:

1. Nepal Bank Ltd.
2. Rastriya Banijya Bank Ltd.
3. Nepal Industrial and Commercial Bank Ltd.
4. Bank of Kathmandu Ltd.
5. Himalayan Bank Ltd.
6. Standard Charted Bank Nepal Ltd.
7. Agriculture Development Bank Lt
8. Nepal Credit and Commerce Bank Ltd.
9. Laxmi Bank Ltd.
10. Kumari Bank Ltd.
11. Nepal Bangladesh Bank Ltd.
12. Nepal SBI Bank Ltd.
13. Everest Bank Ltd.
14. Nepal Investment Bank Ltd.
15. Machhapuchhre Bank Ltd.
16. Sunrise Bank Ltd.
17. Prime Commercial Bank Ltd
18. Citizen Bank International Ltd.
19. Bank of Asia Ltd.
20. Siddhartha Bank Ltd.
21. Global Bank Ltd.
22. Lumbini Bank Ltd.
23. KIST Bank Ltd.
24. Nabil Bank Ltd.
25. NMB Bank Ltd.
26. Grand Bank Ltd.

27. Janata Bank Ltd.
28. Nepal Commerz and Trust Bank Ltd.
29. Mega Bank Ltd.
30. Civil Bank Ltd.
31. Century Bank
32. Sanima Bank Ltd.

3.1.2 The sample Banks

Out of thirty-two commercial banks, only following two commercial are taken as base on data availability and convenience of getting inter value sample for the study. Therefore, it may be purposive sampling rather than random one.

1. Bank of Kathmandu Ltd.
2. Nepal Investment Bank Ltd.

3.1.3 Nature and Sources of Data

Specifically, the nature of the data is to be secondary to achieve the objective of the study. The secondary sources of data are bank publications (Annual reports), central banks rules, regulations and publications.

3.1.4 Data Gathering Procedure

All of data that are considered significant for the study have been aimed to collect through a couple of strategies. Some of the strategies that are about to be applied may include receiving bank publications, informal interviews with bank personnel, and different reports from Nepal Rastra Bank.

3. 1.5 Reliability of Data

Data received through central banks' statistics and research departments, bank publications can be considered valid, as they have already been audited. Similarly, analytical data and texts from the freelance sector can also be considered as valid and reliable because their analysis is independent and free of business purpose.

3.1.6 Data Analysis Procedure

Presentation and Analysis of the collected data is the core part of the research work. The collected raw data are first presented in systematic manner in tabular form and are then analyzed by applying different financial and statistical tools to achieve the research objectives. Besides, some graph charts and tables have been presented to analyze and interpret the findings of the study. Following are the tools applied to analyze and interpret the outcome of the study:

3.1.7 Financial Tools

Financial tools help to analyze the financial strength and weakness of a firm. Ratio analysis is a one of major part of the whole process of analysis of financial statements of any business or industrial concerned especially to take output and credit decisions. It is used to compare firm's financial performance and status that of the other firms or to it overtime. Even though there are many ratio to analyze and interpret the financial statement, those ratios that are related to the investment operation of the bank are have been covered in this study. The following four types of ratios have been used in this study.

3. 1.7.1 Liquidity Ratio

Liquidity helps to reduce the liquidity risk that directly leads to bankruptcy. Liquidity is a bank's ability to generate cash quickly and at a reasonable cost. Thus, liquidity risk is the risk that a bank will not be able to generate enough cash to meet its short-term needs without incurring large costs, within a certain period.

Liquidity ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short-term obligations or its current liabilities. It measures the speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations. As a financial analytical tool, following four liquidity ratios has been used to come into the acts and findings of the study.

- Cash and bank balance to total deposit ratio (CRR Ratio)
- Investment on government securities to Total Deposits

Cash Reserve Ratio (CRR)

Nepal Rastra Bank has set a fixed CRR for all the commercial banks to comply with, according to the directive of NRB all commercial banks have to have a CRR of 5%. Cash Reserve Ratio (CRR) measures the liquidity position of the commercial bank:

$$\text{CRR} = \frac{\text{Cash \& Bank Balance}}{\text{Total Deposits}}$$

Investment in Government Securities to total deposit

$$= \frac{\text{investment in government securities}}{\text{total deposit}} \times 100\%$$

3.1.7.2 Asset Management Ratio

This ratio is examine either assets are effectively and efficiently used or not. Asset management ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensures its effective utilization. The banking business converts the liability into assets by way of its lending and investing functions. Asset and liability management ratio measures its efficiency by multiplying various liabilities and performing assets. The following are the various ratios relating to asset and liability management, which are used to determine the efficiency of the bank concerned in managing its assets and efficiency in portfolio management

- Loan and advances to total deposit ratio
- Non-Performing Assets to Performing assets ratio
- Non performing assets to total assets ratio

Loan and advances to total deposit

$$= \frac{Loan\ and\ advances}{Total\ deposit} \times 100\%$$

Non-performing Assets to performing Assets.

$$= \frac{Non\ performing\ Asset}{Performing\ Assets} \times 100\%$$

Non-performing Assets to total assets.

$$= \frac{\text{Non performing Assets}}{\text{Total Assets}} \times 100\%$$

3.1.7.3 Activity Ratio

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

- Non-performing assets to total loans and advances ratio
- Loan loss provision to total loans and advances ratio
- Provision for Pass loan to total pass loan ratio
- Provision for sub standard loan to total sub standard loan ratio
- Provision for doubtful loan to total doubtful loan ratio
- Provision for bad loan to total bad loan ratio

Non-performing assets to total loans and advances ratio

$$= \frac{\text{Non performing Assets}}{\text{Total loan and advances}}$$

Loan loss provision to total loans and advances ratio

$$= \frac{\text{Loan loss provision}}{\text{Total loan and advance}}$$

Provision for Pass loan to total pass loan ratio

$$= \frac{\text{Provision for pass Loan}}{\text{Total pass loan}}$$

Provision for sub standard loan to total sub standard loan ratio

$$= \frac{\text{Provision for sub standard Loan}}{\text{Total sub standard loan}}$$

Provision for doubtful loan to total doubtful loan ratio

$$= \frac{\text{Provision for doubtful loan}}{\text{Total doubtful loan}}$$

Provision for bad loan to total bad loan ratio

$$= \frac{\text{Provision for bad loan}}{\text{Total bad loan}}$$

3.1.7.4 Loans and Advances Portfolio

To analyze the portfolio behavior of loans and advances of the bank for the study period, trends of loans and advances granted to various sectors of the economy for various purposes have been measured. Under this topic, the following ratios have studied.

- Sector Wise Lending
- Non sector Wise Lending

3.1.7.5 Profitability Ratio

Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. For better performance, profitability ratios of firms should be higher.

- Interest expenses to total expenses ratio
- Interest income to credit and investment ratio
- Net profit to Total loan and advances ratio

Interest expense to total expense.

$$= \frac{interest\ expense}{Total\ expense} \times 100\%$$

Interest income to credit and investment ratio

$$= \frac{Interest\ Income}{Credit\ and\ investment} \times 100\%$$

Net profit to loan and advances.

$$= \frac{Net\ profit}{Loan\ and\ advances} \times 100\%$$

3.1.8 Statistical tools

Some important tools are used to achieve the objective of this study. In this study, statistical tools such as mean, standard deviation, coefficient of correlation and trend analysis have been used.

3.1.8.1 Arithmetic Mean

Arithmetic mean of a given set of observation is their sum divided by the number of observation. In general x_1, x_2 …… x_3 are the given number of observation; their arithmetic mean can be derived in this way.

Arithmetic Mean: Arithmetic mean is the average return over periods.. It is calculated by,

$$\bar{X} = \frac{X_1 + X_2 + X_3 + \dots\dots\dots + X_n}{n}$$

Or, $\bar{X} = \frac{\sum X}{n}$

Where,

$\bar{X}$ = Arithmetic mean return

x_1, x_2, x_3 ………….. x_n = Set of observations

n = total no. of observations

$\sum X$ = Sum of given observation

The arithmetic mean is a single value of selection, which represents them in average. Out of the various central tendencies, a mean is one of the useful tools to find out the average value of the given data. Furthermore, it is very much useful with respect of financial analysis and it is easy to calculate.

3.1.8.2 Karl Pearson's Coefficient Correlation

Out of several mathematical method of measuring correlation the Karl Pearson popularity known as Pearson's coefficient of correlation widely used in practice to measure the degree of relationship between two variables. Two variables are said to have correlation when the value of one variable is accompanied by the change in the value of the other. Therefore, it is measured by following formula using two variables. It is denoted by small ' r'.

Correlation of coefficient $r = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}.\sqrt{n\sum Y^2 - (\sum Y)^2}}$

r = coefficient of correlation

ΣXY = Sum of product of two series.

ΣX^2 = Sum of squared in X series

ΣY^2 = Sum of squared in Y series

The value of this coefficient can never be more than + 1 or less than -1. Thus, + 1 and -1 are the limit of this coefficient. The r = + 1 implies that correlation between variables is positive and vice- versa. And zero denoted no correlation.

3.1.8.3 Standard deviation

Standard deviation is also one of the tools to analyze the data. This tool helps to find out the fluctuation and consistency of the specified variables. Actually, it measures the level of variation from the mean of variables. If this variation is above the level of 5%, it will be interpreted as high level of variation.

SD: Standard deviation measures the dispersion of the outcomes from the expected value. It is calculated using the equation below:

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

Where,

σ = Standard deviation

$\bar{X}$ = Arithmetic mean

n = total no. of observation

3.1.8.4 Coefficient of Correlation Probable Error (P E)

Probable error of the correlation coefficient by P E is the measure of testing the reliability of the calculated value of correlation. If r is calculated, value of correlation a sample of n pair of observations. Then P E is defined by

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

if correlation (r) < P E, it is insignificant. So perhaps there is no evidence of correlation. If correlation (r) > P E, it is significant.

3.1.8.5 Simple regression or Trend Analysis

It is an important and useful technique to analyze and interpret the financial statement. Under this technique of financial analysis, the ratio of different items for various periods is calculated and then a comparison is made. This method is basically helpful in making comparative study of financial management. Generally a period of five years is considered satisfactory. This method of analysis involves the computation of percentage relationship that each statements item bears same to the same items in the base of year.

Trend analysis shows the direction progress upward or downward. It is an important from of horizontal analysis of financial statements often called as Pyramid Method of ratio analysis. More over in this method a statement used to analyzed with the base of another reference statement. Other method of analysis is the calculation of trend analysis and showing trend value in graph paper. On the other hand, trend analysis is not out of limitation, it may effect by price level changes and the select icon of bases year may an obstacle. It can show only the trend in the operating result financial position of a concern cannot be discussed.

Besides there, it is great important for financial performance because of their utilities in business as well as in the banks. They are:

- It is a simple technique. It doesn't involve tedious calculation and requires trained expert.
- It is a brief method to indicate the future trends.
- It reduces the changes of errors as it provides the opportunity to compare the percentage with absolute figure.
- A financial analyst is able to judge the present position of the company and to compare with the overall trend in industry.

Trend analysis measures the scenario of the variables for the different period. This tool is used to find out the trend of different financial indicators. To find out the actual situation of the different factors for various years, trend analysis is most useful. It does not provide the analytical figures as cause and effects but it shows the actual figures. It may be down ward sloping, up ward sloping of constant over the period.

Trend analysis enables to compare two or more companies over different period of time and draw important conclusion about them. With the help of trend analysis, analyst knows the direction of moment. Trend analysis is very important because it may point to basic changes of the objectives in long-term.

Regression equation of y on x:

Or Straight line trend (Y_c) = a + bx

Where a and b are constants to be determined to find the position of the line completely. The parameter a determines the distance of the line directly above or below the origin and b the change y per unit change in x (i.e. slope).

Regression equation has been used to understand the algebraic relations. As there are two Lines of regression so there are two equations;

(i) The regression equation of y on x which is used to describe the variation in the value of y For given change in the value of x.

(ii) The regression equation of x only which is used to describe the variation in the value of x

Diagram and Graphical Representation

Diagram and graphs are visual aids that give a bird eye view of a given set of numerical data .They represent the data in simple and reality comprehensive form. Hence, the various bars, charts and graphs are used to present the data and data analysis in this study.

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

This is one of the major chapters of this study which includes details of analysis and interpretation of data from which solid result can be obtained. This chapter consists of various calculation made for the analysis of credits position of the sample commercial banks. To make the study effective, accurate and easily explicable, this chapter is categorizes in three parts: Presentation, Analysis and Interpretation. The analysis is fully base in secondary data. In presentation section, data are presented in terms of table and charts. The presented data are then analyzed using different statistical tools mentioned in chapter three. Finally, the results of the analysis are interpreted.

4.1 Liquidity Position

Bank is considered to be liquid if it has access to immediate spend able fund at reasonable cost at precisely the time those funds are needed. This means the bank either has the right amount of immediate spend able funds on hand or can raise the necessary funds by borrowing or by selling the assets it owns.

Liquidity helps to reduce the liquidity risk that directly leads to bankruptcy. Liquidity is a bank's ability to generate cash quickly and at a reasonable cost. Thus, liquidity risk is the risk that a bank will not be able to generate enough cash to meet its short-term needs without incurring large costs, within a certain period.

4.1.1 Cash Reserve Ratio (CRR)

Nepal Rastra Bank has set a fixed CRR for all the commercial banks to comply with, according to the directive of NRB all commercial banks have to have a CRR of 5.5%. Cash Reserve Ratio (CRR) measures the liquidity position of the commercial bank:

$$\text{CRR} = \frac{\text{Cash \& Bank Balance}}{\text{Total Deposits}}$$

Table 4.1

Cash Reserve ratio of BOK

(In million)

Years	Cash & Bank Balance	Total Deposits	CRR%
2006/07	801.054	10485	7.64
2007/08	994.159	12389	8.02
2008/09	1198.634	15834	7.57
2009/10	1370.767	18084	7.58
2010/11	1690.291	20316	8.32
Mean			**7.85**
Standard Deviation			**0.33**

Source: Annual Reports

Table 4.1 exhibits the cash and Bank balance to the Total Deposits of Bank of Kathmandu from fiscal year 2006/07 to 2010/11. In Fiscal year 2006/07, the ratio was 7.64%, 8.02%, 7.57%, 7.58% and 8.32% in following years, which are in fluctuating trend. The table shows that the deposits are in increasing trend but the cash and bank balance has been decreased in fiscal year 2006/07 which cause the CRR ratio to fall in that year.

Table 4.2

Cash Reserve ratio of NIBL

(In Million)

Years	Cash & Bank Balance	Total Deposits	CRR%
2006/07	2336.52	18927.31	13.61
2007/08	2441.51	24488.86	10.47
2008/09	3754.94	34451.73	10.91
2009/10	7918.00	46698.10	10.32
2010/11	3892.36	50094.73	7.77
Mean			**10.62**
Standard Deviation			**2.08**

Source: Annual Reports

Table 4.2 exhibits the cash and bank balance to total Deposits of Nepal Investment bank in fiscal years 2006/07 to 2010/11. The CRR ratio in fiscal year 2006/07 is 13.61% which in decreasing trend and is 10.47% in 2006/07and later decreased in fiscal year 2007/08to 10.91% which again decreased in year 2008/09to 10.32%. In fiscal year 2010/11, the ratio has decreased up to 7.77%.The table shows both the total deposits and the Cash and Bank balance are in decreasing trend but the growth percent in the cash and bank balance in fiscal year 2010/11 is less than the Deposits which results the low CRR ratio in that year.

Table 4.3

Comparative analysis of CRR

YEARS	BOK	NIBL
2006/07	7.64	13.61
2007/08	8.02	10.47
2008/09	7.57	10.91
2009/10	7.58	10.32
2010/11	8.32	7.77
MEAN	7.85	10.62
S.D	0.33	2.08

Source: Annual Reports

Figure.4.1

Comparative analysis Cash Reserve Ratio

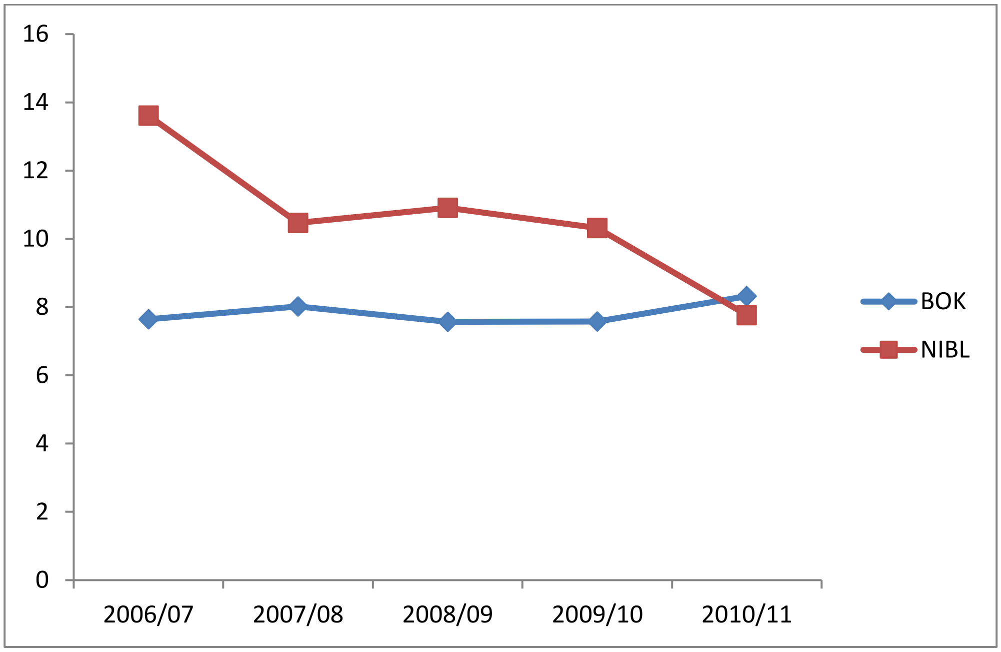


Figure 4.1 exhibits that NIBL has been able to maintain high CRR ratio than BOK since first two fiscal year i.e. 2006/07 and 2007/08. It means NIBL have high liquidity than BOK and they have not facing any problem to meet their short-term obligation. The average CRR of BOK and NIBL with 7.85% and 10.62% respectively. The standard deviation is lower of Bok with 0.33% and NIBL with 2.08% respectively which indicates the fluctuation in CRR ratio is lower of BOK in relation to NABIL, NIBL and NSBI.

4.1.2 Investment in Government securities to Total Deposits

Investment in government securities like treasury bills governments bonds by commercials banks are also treated as liquid assets as they can be easily converted into cash as per the requirement of the commercial banks.

Table 4.4

Investment in Government securities to Total Deposits of BOK

(in Million)

Years	**Inv.govt Securities**	**Deposits**	**Ratio %**
2006/07	2658.37	10485.36	25.35
2007/08	2332.04	12388.93	18.82
2008/09	2113.22	15833.74	13.35
2009/10	1744.98	18083.98	9.65
2010/11	2954.93	20316.00	14.54
Mean			**16.34**
Standard Deviation			**6.01**

Source: Annual reports

Table 4.4 exhibits the investment in government securities to total deposits of Bank of Kathmandu. Investment in government securities has been decreasing trend in the following years till the fiscal year 2009/10 even after the increment in the total deposits. This ratio is 14.54% in the fiscal year 2010/11.

Table 4.5

Investment in Government securities to Total Deposits of NIBL Bank

(in million)

Years	**Inv.govt Securities**	**Deposits**	**Ratio %**
2006/07	2522.30	18927.31	13.33
2007/08	3256.40	24488.86	13.30
2008/09	3155.00	34451.73	9.16
2009/10	2531.3	46698.10	5.42
2010/11	4201.85	50094.73	8.39
Mean			9.92
Standard Deviation			3.40

Source: Annual Reports

Table 4.5 exhibits the Investment in government securities to Total Deposits of NIBL Bank from year 2006/07 to 2010/11. Investment in government securities has been in increasing trend with the deposits till the year 2007/08 then after the investment in government securities has been decreased in the year 2008/09 and 2009/10. In the year 2009/10 both investment in government securities and deposits increased. However, the investment has increased until year 2006/07 the ratio of investment in government securities to total deposits has been in decreasing trend due to lower growth rate of investment in government securities in comparison with the growth rate of Deposits. The investment in government securities has decreased in the year 2007/08 and 2008/09 even after the increment in the total deposits, which implies that the fund has been diverted in other sectors as investment. In the fiscal year 2010/11, deposits and investment in government securities both increased and their ratio reached to 8.39%.

Table 4.6

Comparative analysis of Investment on Government Securities

YEARS	BOK	NIBL
2006/07	25.35	13.33
2007/08	18.82	13.30
2008/09	13.35	9.16
2009/10	9.65	5.42
2010/11	14.54	8.39
MEAN	16.34	9.92
S.D	6.01	3.40

Source: Annual reports

Figure 4.2

Investment in Government Securities to Total Deposits

Figure 4.2 exhibits the investment in Government Securities to Total Deposits of the four Banks. Among them, In the year, 2006/07 BOK has higher investment in government securities than NIBL i.e. maximum of 25.35%. Among them, NIBL has maintained minimum ratio in all the years whereas BOK has in fluctuation. The trend shows the decreasing ratio in later years for both the banks due to diversification of investment in other sectors.

4.2 Asset Management /Asset Quality

Asset quality refers to the degree of financial strength and risk in a bank's assets, characteristically loans and investments. A comprehensive evaluation of asset quality is one of the most important components in assessing the current condition and future possibility of the bank. The way any business firm is able to make profit or earnings is by utilizing its assets gain some form of earning. In this view, not only the asset but also the type of asset of the company plays a essential role if the company is to succeed or fail. Thus, a company needs assets and it has to make sure that its assets are performing or doing what they are supposed to do.

Therefore, the ideal condition of the bank would be to disperse all its deposits as loans and earn interest on it, but not only is this not possible due to regulations but as the theory in economics explain “higher the gain higher the risk”, this is very true for loans. Therefore, though the bank gives out loans it may not be performing, as the creditor will not pay his interest and principle. If this happens then the bank needs to set aside some provisions to meet the risk of non-payment of creditors. Thus by analyzing this none performing assets of the bank, we can get a glance of the quality use of the asset of the bank. The higher the NPA the worse is the situation for the bank.

4.2.1 Loan and advances to total Deposit

Loan and Advances to total deposit ratio shows the proportion of the loan in relation with the Deposits. Higher the ratio, higher the utilization of fund and results in increment in the profit but it also increases the liquidity risk.

Table 4.7

Loan and advances to total deposits of BOK

(In million)

Years	Loan and Adv.	Deposits	Ratio %
2006/07	7459.24	10485	71.42
2007/08	9694.39	12389	78.25
2008/09	12747.95	15834	80.51
2009/10	14946.41	18084	82.65
2010/11	17045.12	20316	83.90
Mean			**79.35**
Standard Deviation			**5.84**

Source: Annual report

Table 4.7 shows the loan and advances to total deposit of Bank of Kathmandu of five fiscal years 2006/07 to 2010/11. Loan and advances has been increased with the increment in total deposit. The growth rate of loan and advances has been higher than the growth rate of deposit that leads to the increment in the ratio from 71.42% in the year 2006/07 to 83.90% in 2010/11. The average loan and advances remain 79.35% in these five years with the standard deviation of 5.84%.

Table 4.8

Loan and advances to total deposits of NIBL

(in million)

Years	Loan and Adv.	Deposits	Ratio %
2006/07	13179.08	18927.31	69.63
2007/08	17769.12	24488.86	72.56
2008/09	27530.38	34451.73	79.91
2009/10	36826.12	46698.10	78.86
2010/11	40947.43	50094.73	81.74
Mean			76.54
Standard Deviation			5.18

Source: Annual reports

Table 4.8 shows the loan and advances to total deposit ratio of NIBL Bank from year 2006/07 to 2010/11. It shows that the loan and advances has been increased with the total deposits every year but the growth rate has been inconsistent which results in the fluctuation in the ratio. In year 2007/08 the loan and advances has increased and reached 72.56% of total deposit and keep on increasing in later years to 79.91%, 78.86% & 81.74% respectively. The average loan and advances to total deposit remains 76.54% in these five years with the standard deviation of 5.18%.

Table 4.9

Comparative analysis of Loan and advances to Total Deposit

YEARS	BOK	NIBL
2006/07	71.42	69.63
2007/08	78.25	72.56
2008/09	80.51	79.91
2009/10	82.65	78.86
2010/11	83.90	81.74
MEAN	79.35	76.54
S.D	5.84	5.18

Source: Annual Report

Figure 4.3

Comparative Analysis of Loan and Advances to Total Deposits

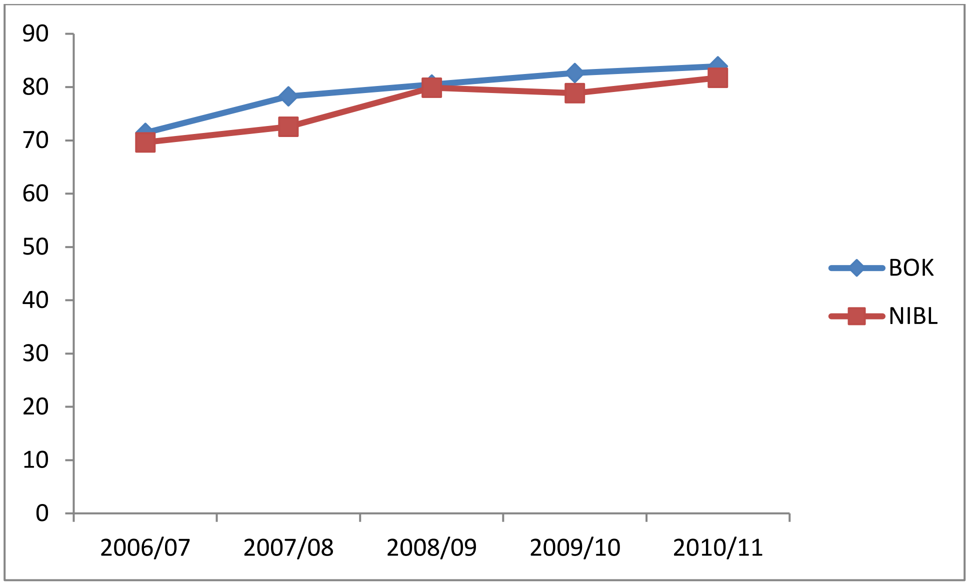


Table 4.9 exhibits the comparative analysis of the loan and advances to total deposit of the NIBL and BOK. Among them, NIBL have upward and downward in their ratio with the lowest in the year 2006/07 with 68.13% whereas the ratio has been increased in case of BOK which is increased from 71.42% in year 2006/2007 to 83.90% in the year 2010/11. BOK has the highest average ratio of loan and advances to total deposit with 79.34%. The standard deviation is also high in the case of BOK with 5.84%, which means they have high fluctuation in their ratios whereas NIBL maintaining with 5.18%.

4.2.3 Non-performing Assets to Total assets.

Non-performing assets to total assets shows the assets status of the banks. Higher the non-performing assets results on the lower assets quality and the higher credit risk.

Table 4.10

Non-performing Assets to Total assets of BOK.

(in millions)

Years	Non-Performing Asset	Total Asset	Ratio %
2006/07	198.15	12278.33	1.62
2007/08	237.22	14570.10	1.63
2008/09	232.70	17721.93	1.31
2009/10	190.32	20496.01	0.93
2010/11	257.22	23396.19	1.09
Mean			**1.32**
Standard Deviation			**0.31**

Source: Annual Reports

Table 4.10 exhibits the non-performing assets to total assets of BOK from year 2006/07 to 2010/11. The non-performing asset of BOK has increased in the year 2007/08 to Rs. 237.22 million. It decreased to Rs. 232.70 million in year 2008/09 which has decreased in the following years and reached Rs.190.32 million in the year 2009/10. Again, it increased In the year 2010/11 is 257.22 million. In the assets, there is a continuous increment every year. The average ratio is 1.32% with the standard deviation of 0.31%

Table 4.11

Non-performing Assets to Total assets of NIBL.

(in million)

Years	Non-Performing Asset	Total Asset	Ratio %
2006/07	267.15	21330.14	1.25
2007/08	411.13	27590.84	1.49
2008/09	304.86	38873.31	0.78
2009/10	213.91	53010.80	0.40
2010/11	254.03	57305	0.44
Mean			**0.87**
Standard Deviation			**0.49**

Source: Annual Reports

Table 4.11 exhibits the non-performing assets to total assets of NIBL from year 2006/07 to 2010/11.Non- performing asset of NIBL is 267.15 in the year 2006/07 which has increased to Rs. 411.13 in the year 2007/08 then again the bank has managed to decrease the non performing assets to 304.86 in the year 2008/09, 213.91 in the year 2009/10 and 254.03 million and 2010/11. In the total assets side, there is an increment in every year. The mean ratio of non-performing assets to total assets is 0.87% and the standard deviation is 0.49%.

Table 4.12

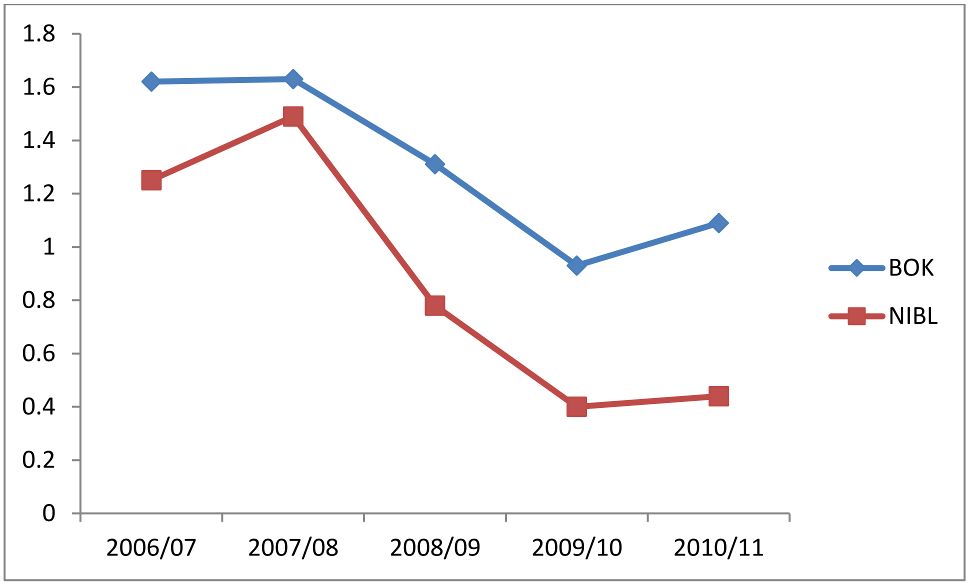
Comparative analysis of Non-performing assets to Total assets.

YEARS	**BOK**	**NIBL**
2006/07	1.62	1.25
2007/08	1.63	1.49
2008/09	1.31	0.78
2009/10	0.93	0.40
2010/11	1.09	0.44
MEAN	**1.32**	**0.87**
S.D	0.31	0.49

Source: Annual Reports

Figure 4.4

Comparative analysis of non-performing assets to total assets



NIBL bank has managed to decrease the ratio every year where as the non-performing assets to total assets ratio of BOK has been fluctuating in every year. The average mean ratio of BOK is 1.32 and NIBL is 0.87 with standard deviation of 0.31 and 0.49 respectively. NIBL has performed well in managing the non-performing assets low even in the higher increment in the total assets side.

4.3 Activity Ratio

Activity ratio measure the performance efficiency of an organization from various angles of its operations. These ratios indicate the efficiency of the activity of an enterprise to utilize available funds, particularly short-term funds. There ratios are used to determine the efficiency, quality and the contribution of loans and advances in the total profitability.

4.3.1 Non-performing assets to total Loan and advances ratio

Non-performing loan to total loan and advances ratio gives us an idea about the status of the loan which are good and which are in risk. Higher the non- performing loan to total loan mean the bank is in higher default risk.

Table 4.13

Non-performing assets to total Loan and advances of BOK.

(in million)

Years	Non-Performing Asset	Total Loan and Adv.	Ratio %
2006/07	198	7489	2.65
2007/08	237	9694	2.45
2008/09	232	12784	1.81
2009/10	190	14946	1.27
2010/11	257	17044	1.51
Mean			1.94
Standard Deviation			0.59

Source: Annual Reports

Table 4.13 exhibits the Non-performing assets to total loan and advances of BOK from the year 2006/07 to 2010/11. The non-performing loan in the year 2006/07 is Rs. 198 million that has been increased in the year 2006/07 to Rs. 237 million in the year 2007/08. It is decreased to Rs.232 million in 2008/09 and later on decreased and reached Rs. 190 million in the year 2009/10. Again, in the year 2010/11 it increases to 257 million. Total loan and advances of the BOK has been in increasing trend every year.

The ratio of non-performing assets to total loan is 2.65% in the year 2006/07 that is a bit high but the bank has managed to decrease on the following years and reached 1.51% by the year 2010/11 that shows the quality performance of the bank. The mean ratio of non-performance assets to total loan and advances is 1.94% with the standard deviation of 0.59%.

Table 4.14

Non-performing assets to total Loan and advances of NIBL.

(in million)

Years	**Non-Performing Asset**	**Total Loan and Adv.**	**Ratio %**
2006/07	267.15	13178.15	2.03
2007/08	411.13	17769.10	2.31
2008/09	304.86	27529.30	1.11
2009/10	213.91	36827.16	0.58
2010/11	254.03	40948.44	0.62
Mean			1.33
Standard Deviation			0.80

Source: Annual Report

Table 4.14 exhibits the non-performing assets to total loan and advances of NIBL over five years period. The non-performing assets of NIBL in the year 2005/06 is Rs. 267.15 million which reach highest in the year 2006/07 with Rs. 411.13 million and later decreased to Rs.254.03 million in the year 2009/10. The loan and advances has been in increasing trend in all five years. The ratio non-performing assets to total loan and advances is 2.03% in the year 2005/06 which the bank has managed to reduce to 0.62% by the year 2009/10. The mean ratio of the five years is 1.33% with the standard deviation of 0.80%.

Table 4.15

Comparative analysis of non-performing assets to total loan and advances.

YEARS	**BOK**	**NIBL**
2006/07	2.65	2.03
2007/08	2.45	2.31
2008/09	1.81	1.11
2009/10	1.27	0.58
2010/11	1.94	0.62
MEAN	1.94	1.33
S.D	0.59	0.8

Source: Annual Report

Figure 4.5

Comparative analysis of non-performing assets to total loan and advances

Table 4.14 and figure 4.6 NIBL bank has maintained the low mean non-performing assets to total loan and advances ratio with 1.33%. But BOK has 1.94%. Standard deviation of BOK and NIBL are 0.59 and 0.80 respectively.

4.3.2. Loan Loss Provision to Total Loan and Advances Ratio

Loan loss provision to total loan and advances ratio gives us an idea of the total provisioning of the non-performing loans by the banks. Higher the provision means the higher the non-performing assets in the bank.

Table 4.16

Loan loss provision to total loan and advances of BOK

(In million)

Years	Loan loss Provision	Total Loan and Adv.	Ratio %
2006/07	229.62	7489	3.07
2007/08	294.77	9694	3.04
2008/09	285.08	12784	2.23
2009/10	298.42	14946	2.00
2010/11	379.37	17044	2.23
Mean			2.51
Standard Deviation			0.50

Source: Annual Reports

Table 4.16 shows the Loan loss provision to Total loan and advances of BOK for five years. The Loan loss provision is in up and down in the five-year period. The provision has decreased in the year 2006/07 and 2007/08 and increased in up to 2010/11 and fiscal year 2008/09. In other side the loan and advances are in increasing trend. The ratio is highest in year 2006/07 with 3.07% that is in decreasing trend to 2009/10 and 2.23% by the year 2010/11. The mean ratio is 2.51% with the standard deviation of 0.50%.

Table 4.17

Loan loss provision to total loan and advances of NIBL.

(In million)

Years	Loan loss Provision	Total Loan and Adv.	Ratio %
2006/07	401.94	13178.15	3.05
2007/08	482.67	17769.10	2.72
2008/09	532.65	27529.30	1.94
2009/10	585.95	36827.16	1.59
2010/11	630.13	40948.44	1.54
Mean			2.17
Standard Deviation			0.68

Source: Annual reports.

Table 4.17 exhibits the loan loss provision to total loan and advances of NIBL form year 2006/07 to 2010/11. The Loan loss provision of the NIBL is in increasing trend every year and reaches Rs.630.13 million in year 2010/11 from Rs.401.94 million in the year 2006/07. Total loan and advances of NIBL is also in increasing trend every year. The ratio, Loan loss provision to total loan and advances is high in the year 2006/07 with 3.05% that is in decreasing trend and reaches 1.54% in the year 2010/11. The mean ratio is 2.17% with the standard deviation of 0.68%.

Table 4.18

Comparative analysis of Loan loss provision to total loan and advances.

YEARS	BOK	NIBL
2006/07	3.07	3.05
2007/08	3.04	2.72
2008/09	2.23	1.94
2009/10	2.00	1.59
2010/11	2.23	1.54
MEAN	2.51	2.17
S.D	0.50	0.68

Source: Annual reports

Figure 4.6

Comparative analysis of loan loss provision to total loan and advances

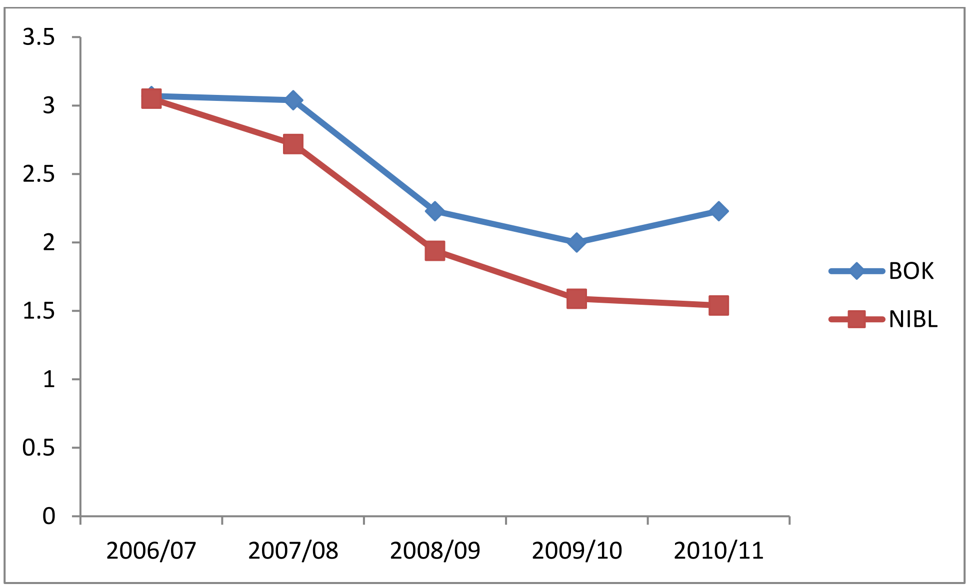


Table 4.18 and figure 4.7 shows the Loan loss provision to Total loan and advances of NIBL and BOK for five years. The Loan loss provision is up and down in the five-year period. The provision has decreased from fiscal year 2006/07 to 2010/11. In other side the loan and advances are in increasing trend. The mean ratio is 3.54% with the standard deviation of 1.45%. Among the two sampled banks, BOK has the higher ratio with average of 2.51% whereas BOK has only 2.17%.

4.3.3. Provision for pass loan to total pass loan

Table 4.19

Provision for pass loan to total pass loan of BOK

(in million)

Years	Provision for Pass Loan	Total Pass Loan	Ratio %
2006/07	70.83	7123.20	0.99
2007/08	93.16	9346.81	1.00
2008/09	124.04	12435.22	1.00
2009/10	147.20	14746.83	1.00
2010/11	167.67	16784.78	1.00
Mean			1.00
Standard Deviation			0.00

Source: Annual reports

Table 4.19 exhibits the provision of pass loan to total pass loan of BOK from year 2006/07 to 2010/11. The provision is increasing every year with the increase in the total pass loan. The ratio is 0.99% for the initial one year that is below the standard directed by the NRB and after year 2006/07, the NRB standard has been maintained with 1.00%. The average ratio for the five years is 1.00% with no deviation.

Table 4.20

Provision for pass loan to total pass loan of NIBL

(in million)

Years	Provision for Pass Loan	Total Pass Loan	Ratio %
2006/07	128.76	12869.28	1.00
2007/08	173.50	17309.51	1.00
2008/09	274.45	27176.97	1.01
2009/10	381.20	36576.26	1.04
2010/11	420.84	40674.11	1.04
Mean			1.02
Standard Deviation			0.02

Source: Annual reports

Table 4.20 exhibits the provision for pass loan to total pass loan of NIBL for 5 years period. The provision for the pass loan of NIBL is in increasing trend with the increasing total loan. The ratio 1.00% in the year 2006/07, which is exactly one, than the standard of 1% directed by NRB. They are able to maintain the ratio all other years. The average ratio is 1.02% with the standard deviation of 0.02%.

Table 4.21

Comparative analysis of provision for pass loan to total pass loan.

YEARS	BOK	NIBL
2006/07	0.99	1.00
2007/08	1.00	1.00
2008/09	1.00	1.01
2009/10	1.00	1.04
2010/11	1.00	1.04
MEAN	1.00	1.02
S.D	0.00	0.02

Figure 4.7

Comparative analysis of provision for pass loan to total pass loan

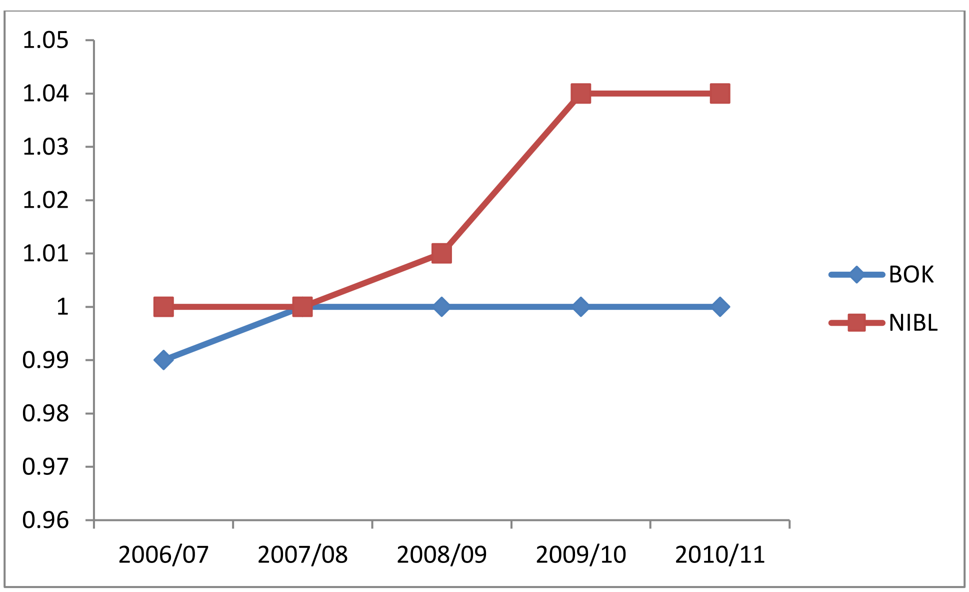


Table 4.21 and figure 4.8 NIBL banks has provisioned over the standard of 1% in the year 2006/07 whereas BOK has failed to meet the standard. However, in other years BOK has met the standard directed by NRB but NSBI has failed to maintain the NRB standard.

4.3.4 Provision for sub standard loan to total sub standard loan

Table 4.22

Provision for sub standard loan to total sub standard loan of NIBL.

(in millions)

Years	Prov. For Sub-standard	Loan Sub-Standard Loan	Ratio %
2006/07	11.06	44.24	25.00
2007/08	24.57	96.89	25.36
2008/09	10.40	61.74	16.84
2009/10	2.69	10.77	24.98
2010/11	13.93	55.71	25.00
Mean			23.43
Standard Deviation			3.69

Source: Annual Reports

Table 4.22 exhibits the provision for sub standard loan to total sub standard loan of NIBL. The sub standard loan of NIBL is Rs. 44.24 million in the year 2006/07 which later on increased to Rs.96.89 million by the year 2007/08 again, it decreased to Rs.10.77 million in the year 2008/09 and by the year 2010/11 increased to 55.71 million.. The provision has increased in the year 2007/08 and 2010/11. The ratio has been meeting up to the standard of 25% only in the year 2006/07 and 2010/11 then the bank failed to meet in the year 2007/08 and 2008/09. The ratio is only 16.84% in the year 2008/09 that is very low with the standard of 25%.The mean ratio is 23.43% below the standard with the deviation of 3.69%.

Table 4.23

Provision for sub standard loan to total sub standard loan of BOK.

(In million)

Years	Prov. for Sub-standard	Loan Sub-Standard Loan	Ratio %
2006/07	17.90	71.61	25.00
2007/08	10.00	39.86	25.09
2008/09	25.04	100.18	25.00
2009/10	9.23	36.91	25.00
2010/11	2.87	11.46	25.00
Mean			25.00
Standard Deviation			0.05

Source: Annual reports

Table 4.23 exhibits the provision for sub standard loan to total sub standard loan of BOK. BOK has been able to reduce its sub standard loan in all years. The mean ratio is 25.00% with the minimum deviation of 0.05%.

Table 4.24

Comparative analysis of provision for sub standard loan to total sub standard loan

YEARS	BOK	NIBL
2006/07	25.00	25.00
2007/08	25.09	25.36
2008/09	25.00	16.84
2009/10	25.00	24.98
2010/11	25.00	25.00
MEAN	25.00	23.43
S.D	0.05	3.69

Figure 4.8

Comparative analysis of provision for sub standard loan to total sub standard loan

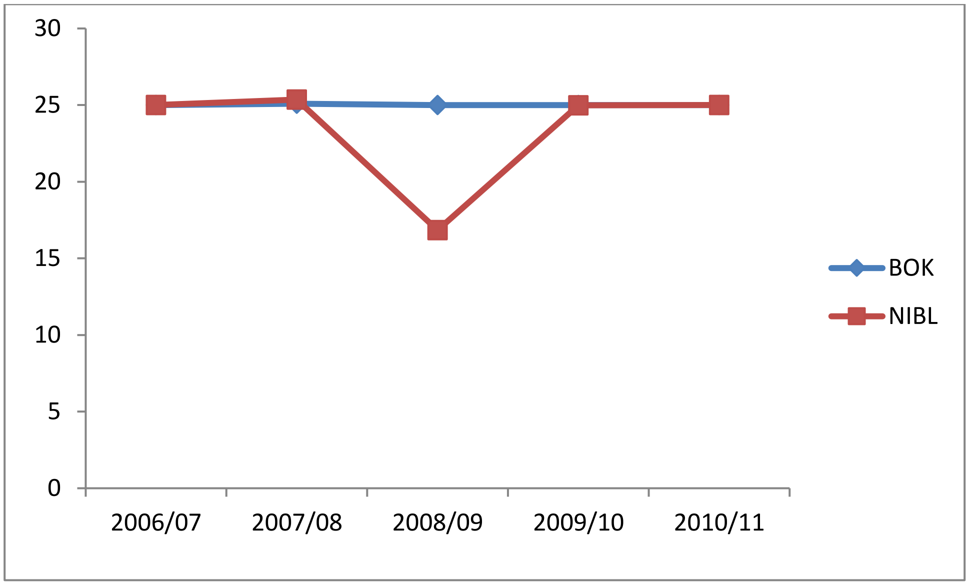


Table 2.24 and figure 4.9 indicate the comparative analysis of provision for sub standard loan to total sub standard loan ratio. Among the two sampled banks, BOK has met the standard of 25% in all the years whereas NIBL felt to meet the standard in fiscal years 2008/09 and 2009/10. This indicates that their poor performance in maintaining standard. The average ratio of NIBL is 23.43%, which is below the standard. BOK has met the standard in all following years with the average ratio of 25.00%.

Table 4.25

Provision for doubtful loan to total doubtful loan of BOK

(in million)

Years	**Prov. for Doubtful Loan**	**Doubtful Loan**	**Ratio %**
2006/07	4.40	8.80	50.00
2007/08	18.29	36.58	50.00
2008/09	9.62	19.25	49.97
2009/10	10.54	21.09	49.98
2010/11	35.42	70.85	49.99
Mean			49.99
Standard Deviation			0.01

Source: Annual reports

Table 4.25 shows the provision of doubtful loan to total doubtful loan of BOK of five years period. The doubtful loan is highest in the year 2010/11with Rs. 70.85 million. It has failed to meet standard in year 2008/09, 2009/10 and 2010/11. The average ratio is 49.99%, which is below the standard with the deviation of 0.01%.

Table 4.26

Provision for doubtful loan to total doubtful loan of NIBL

(in million)

Years	Prov. for Doubtful Loan	Doubtful Loan	Ratio %
2006/07	0.25	0.50	50.00
2007/08	43.08	86.05	50.06
2008/09	10.40	20.72	50.19
2009/10	5.74	11.49	49.96
2010/11	5.50	10.99	50.00
Mean			50.04
Standard Deviation			0.09

Source: Annual report

Table 4.26 shows that the provision for doubtful loan to total doubtful loan of NIBL. The doubtful loan is highest in the year 2007/08 with Rs.86.05 million that has reduced later years and reached Rs.10.99 million in years 2010/11. The provision also moved in the same trend with highest in the year 2007/08 with Rs.43.08 million that decreased to Rs.5.50 million in the year 2010/11. NIBL has met the standard of 50% in initial three years and the year 2010/11 but has failed to meet the standard in the year 2009/10 with only 49.96%. The average ratio is 50.04 with the deviation of 0.09%.

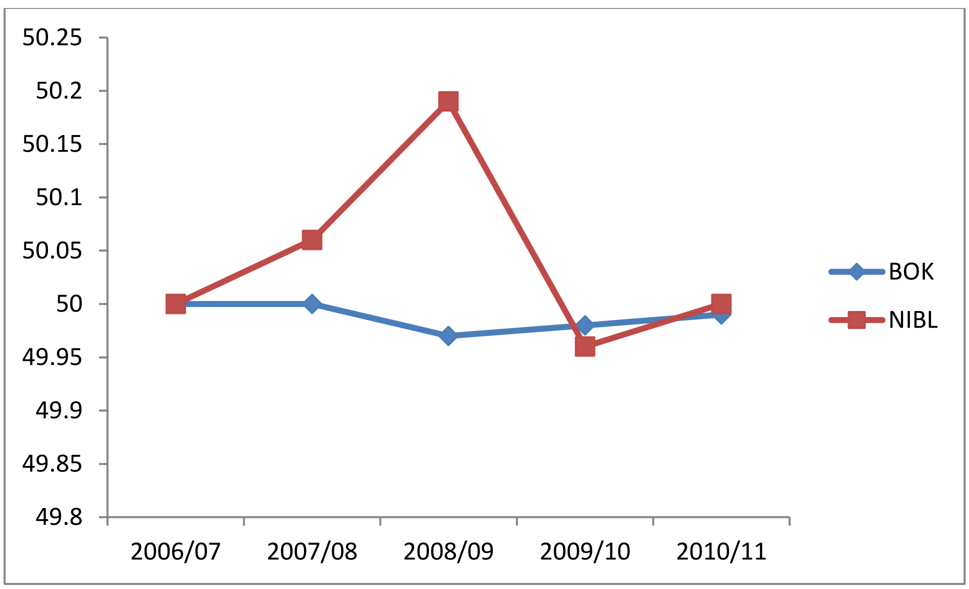
Table 4.27

Comparative analysis of provision for doubtful loan to total doubtful loan.

YEARS	BOK	NIBL
2006/07	50.00	50.00
2007/08	50.00	50.06
2008/09	49.97	50.19
2009/10	49.98	49.96
2010/11	49.99	50.00
MEAN	49.99	50.04
S.D	0.01	0.09

Figure 4.9

Comparative analysis of provision for doubtful loan to total doubtful loan



The above table 4.27 and figure 4.10 indicates that among the two banks, NIBL has managed to meet the standard of 50% as per NRB directive in 4 fiscal years and l failed to meet in the year 2009/10. Likewise, BOK has failed to meet the standard in three Fiscal years with their average ratio of 49.02 and 49.99% respectively i.e. below the standard directed by NRB.

Table 4.28

Provision for bad loan to total bad loan of BOK.

(In million)

Years	Prov. for Bad Loan	Bad Loan	Ratio %
2006/07	116.24	123.21	94.34
2007/08	160.36	166.86	96.10
2008/09	116.93	117.48	99.53
2009/10	130.39	132.32	98.54
2010/11	173.12	174.91	98.98
Mean			97.50
Standard Deviation			1.79

Source: Annual reports

Table 4.28 shows the provision for bad loan to total bad loan of BOK. There is up and down trend in the bad loan of BOK. The ratio is below the standard of 100% in all the fiscal years. The mean ratio is 97.50 below the standard with the deviation of 1.79%.

Table 4.29

Provision for bad loan to total bad loan of NIBL.

(in million)

Years	Prov. for Bad Loan	Bad Loan	Ratio %
2006/07	225.49	227.76	99.00
2007/08	236.82	239.03	99.08
2008/09	227.01	227.01	100.00
2009/10	191.66	191.66	100.00
2010/11	187.33	187.33	100.00
Mean			99.62
Standard Deviation			0.53

Source: Annual reports

The table 4.29 exhibits the provision for bad loan to total bad loan. Total bad loan of NIBL is in increasing trend until year 2007/08 with the highest of Rs. 239.03 million then after has decreased and reached to Rs.187.33 in the year 2010/11. NIBL has failed to meet the standard of 100% as per directive of NRB in initial two years and only managed to meet the standard in the year 2008/09, 2009/10 and 2010/11. The average ratio is 99.62% below the standard with the deviation of 0.53%.

Table 4.30

Comparative analysis of provision for bad loan to total bad loan.

YEARS	BOK	NIBL
2006/07	94.34	99.00
2007/08	96.10	99.08
2008/09	99.53	100.00
2009/10	98.54	100.00
2010/11	98.98	100.00
MEAN	97.50	99.62
S.D	1.79	0.53

Figure 4.10

Comparative analysis of provision for bad loan to total bad loan

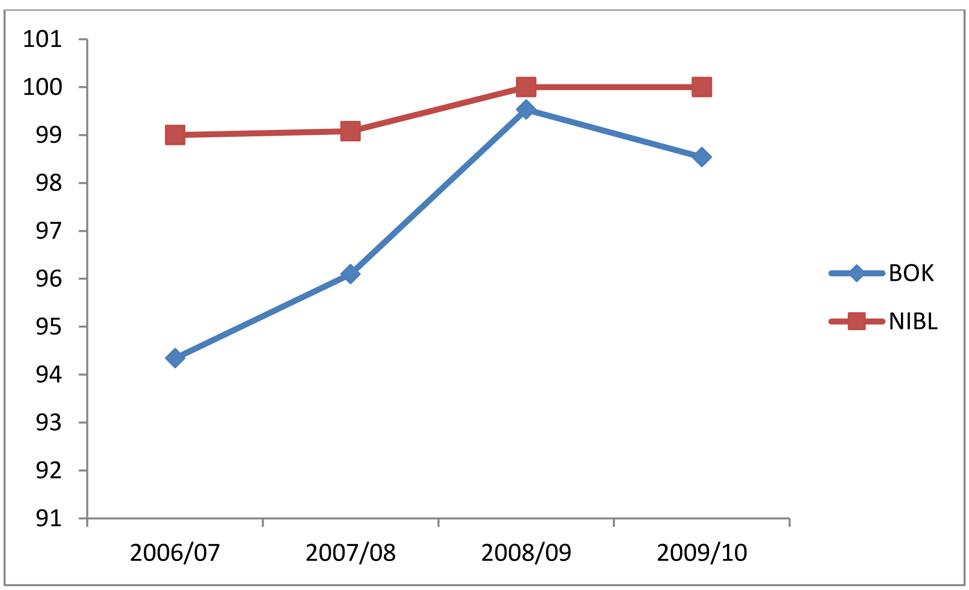


Table 4.30 and figure 4.11 indicates the comparative analysis of provision for bad loan to total bad loan ratio of BOK and NIBL. Among the two sampled banks, both the banks has failed to meet the standard of 100% provisioning as per guided by NRB. Only NIBL has managed to

meet the standard in year 2008/09 2009/10 and 2010/11. BOK has failed to meet the standard but the provision is only short by some percent. NIBL has failed to meet the standard in initial two years but the ratio is very near to the standard.

4.4 Loan and Advances Portfolio

Loan and Advances portfolio is the combination of loan and advances into different areas sanctioned by bank. By analyzing the loan diversified into different areas and the status of that sector bank can make decision whether to lend more or stop for that particular sector. The percentage calculated below is the average of the four years data from 2006/07 to 2010/11.

Table 4.31
Loan and advances portfolio of BOK.

Sector	**Percentage**
Agriculture	0.94
Mining	2.08
Production	28.49
Construction	10.12
Metal Production, machinery	2.17
Transportation equipment production	0.36
Transportation	12.90
Wholesaler& Retailer	19.24
Finance, Insurance	7.13
Service Industries	8.89
Consumable Loan	2.66
Local Government	0.00
Others	5.02
Total	100.00

Source: NRB reports

Figure 4.11

Sector wise lending of BOK

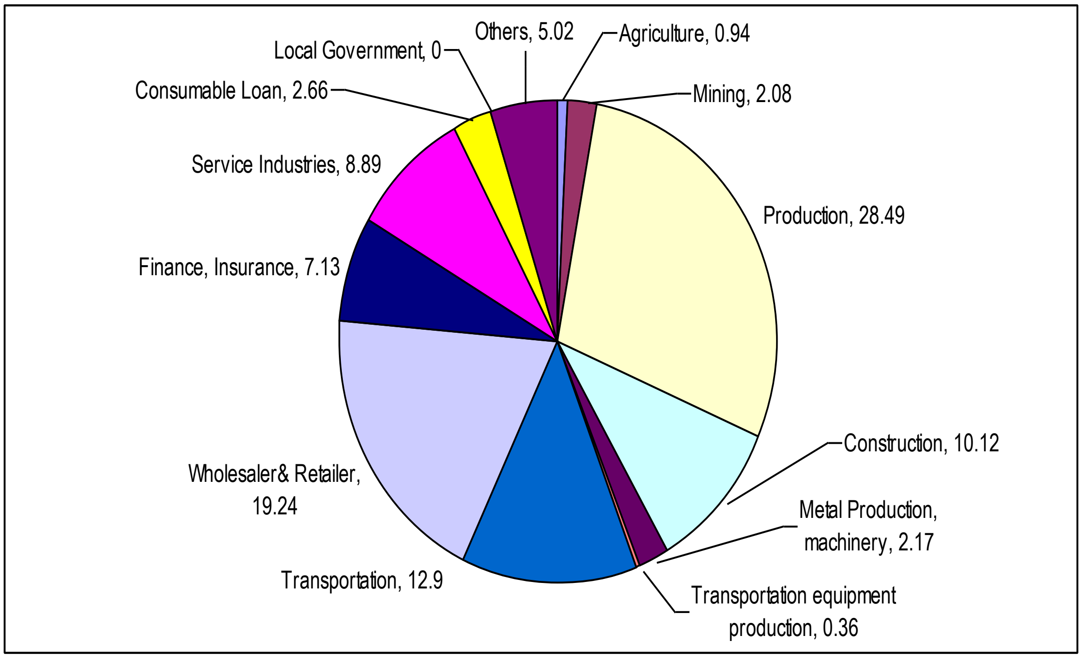


Table 4.31 and figure 4.12 show the average sector wise lending of BOK over five years period from 2006/07 to 2010/11. BOK has lent 28.49% of its loan in production sector followed by 19.24% in wholesaler and retailer and 12.9% in transportation. The lending in service sector is 8.89% and 10.12% in construction. It has made minimum lending in agriculture sector with the average of 0.94% and 2.08% in mining.

Table 4.32

Loan and advances portfolio of NIBL.

Sector	**Percentage**
Agriculture	0.64
Mining	0.02
Production	33.93
Construction	4.09
Metal Production, machinery	0.91
Transportation equipment production	0.16
Transportation	4.56

Wholesaler & Retailer	17.66
Finance, Insurance	7.34
Service Industries	11.68
Consumable Loan	0.99
Local Government	0.00
Others	18.02
Total	100.00

Source: NRB reports

Figure 4.12

Sector wise lending of NIBL.

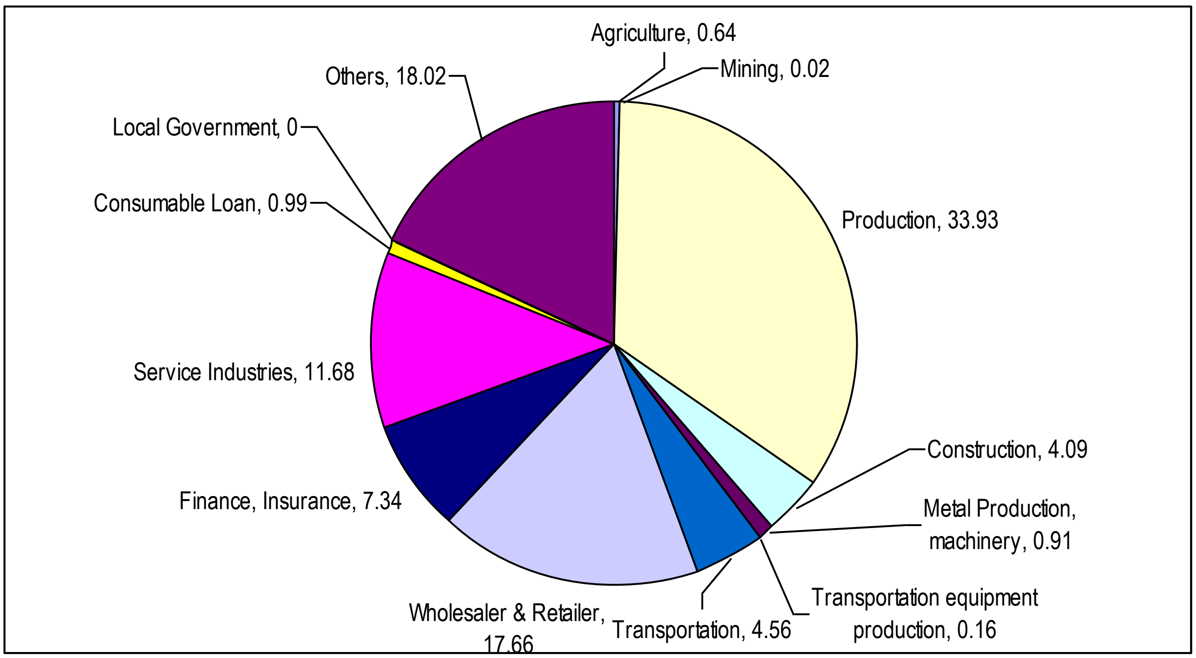


Table 4.32 and Figure 4.13 show the average proportion of loan and advances in different sectors of NIBL of year 2006/07 to 2010/11. NIBL has highest proportion of loan and advances in the production sector with 33.93%. Follow by other sectors 18.02%, wholesaler and retailer 17.66%. NIBL has lend 11.68% of its total loan in services sector with 4.09% in construction and very minimum in agriculture and mine industries i.e.0.64 and 0.02 respectively. There is no lending in local government.

Table 4.33
Comparative analysis of sector wise lending by sampled banks

	BOK	**NIBL**
Agriculture	0.94	0.64
Mining	2.08	0.02
Production	28.49	33.93
Construction	10.12	4.09
Metal Production, machinery	2.17	0.91
Transportation equipment production	0.36	0.16
Transportation	12.90	4.56
Wholesaler & Retailer	19.24	17.66
Finance, Insurance	7.13	7.34
Service Industries	8.89	11.68
Consumable Loan	2.66	0.99
Local Government	0.00	0.00
Others	5.02	18.02
Total	100.00	100.00

Figure 4.13

Sector wise lending of three sampled banks

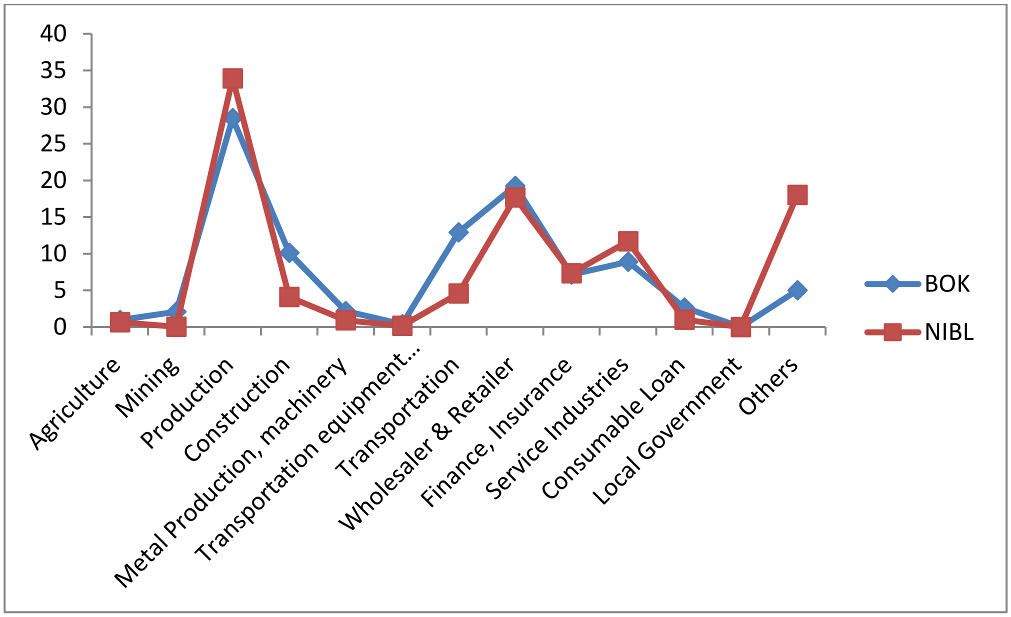


Table 4.33 and Figure 4.14 show the average sector wise lending of the sampled banks. Both sample banks have highest proportion of their loan and advances in the production sector followed by the wholesaler and retailer. BOK has lower lending in production sector and higher lending in wholesaler and retailer as compared to NIBL has lower proportion of loan in construction sector as compared to BOK. i.e. invested around 4.09%. Both banks have lent very low in agriculture and mining sectors and no lending in local government.

4.5 Profitability Ratio

Profitability ratio shows the overall efficiency of the firm in term of profit and financial performance. For better performance, the ratio should be higher.

Table 4.34

Interest expenses to total expanses of BOK.

(In million)

Years	Interest Expense	Total Expense	Ratio %
2006/07	308.16	484.95	63.54
2007/08	339.18	547.35	61.97
2008/09	417.54	819.70	50.94
2009/10	563.11	943.27	59.70
2010/11	902.93	1365.90	66.11
Mean			60.45
Standard Deviation			5.81

Source: Annual reports

Table 4.34 shows the total interest expenses to total expenses of BOK. Total Expenses of BOK has been increased every year form Rs. 484.95 million in year 2006/07 to Rs. 1365.90 million in year 2010/11. Similarly, interest expenses have also increased from Rs. 308.16 million in year 2006/07 to Rs. 902.93 million in years 2010/11. The ratio in the year 2006/07 is 63.54%, which reduces to 50.94% in the year 2008/09 and it again increased and reached to 66.11% in the fiscal year 2010/11. The decrease in the ratio trend shows the bank able to collect interest free deposits in years up to 2008/09 and it fails to collects in year 2009/10 and 2010/11. The mean ratio is 60.45% with the standard deviation of 5.81%.

Table 4.35

Interest expenses to total expanses of NIBL.

(In million)

Years	Interest Expense	Total Expense	Ratio %
2006/07	490.95	802.22	61.20
2007/08	685.53	1074.33	63.81
2008/09	992.16	1492.46	66.48
2009/10	1686.97	2326.58	72.51
2010/11	2553.85	3267.29	78.16
Mean			68.43
Standard Deviation			6.87

Source: Annual reports

Table 4.35 shows the total interest expenses to total expanses of NIBL. Total expenses have grown every year. Likewise, total interest expenses have also grown year by year. The ratio is

61.20% in the year 2006/07, which has increased and reached to 78.16% in the year 2010/11. NIBL has managed to collect the interest bearing deposits in recent years as the ratio has increased. The mean ratio is 68.43% with the standard deviation of 6.87%.

Table 4.36

Comparative analysis of interest expenses to total expenses.

YEARS	BOK	NIBL
2006/07	63.54	61.20
2007/08	61.97	63.81
2008/09	50.94	66.48
2009/10	59.70	72.51
2010/11	66.11	78.16
MEAN	60.45	68.43
S.D	5.81	6.87

Figure 4.14

Comparative analysis of interest expenses to total expenses

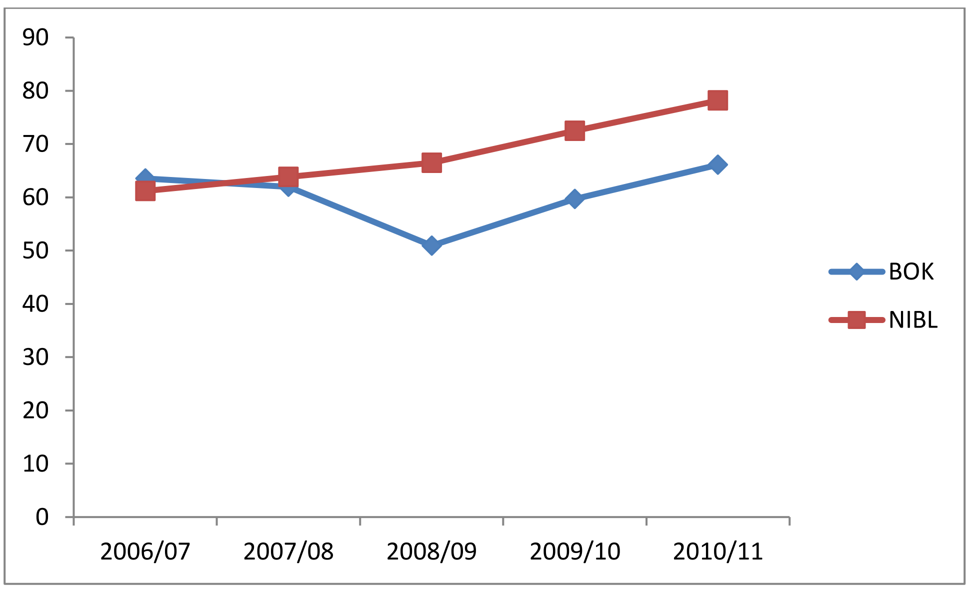


Table 4.36 and figure 4.15 shows the interest expenses to total expenses of the two sampled banks. BOK has the lowest mean ratio with 60.45% in comparison with the 68.43 % of NIBL. In case of NIBL, the ratio has increased that means they are collecting interest bearing deposits

but BOK has managed to reduce the ratio, which means their non-interest bearing deposits is growing. Among the two banks, NIBL has highest interest bearing deposits.

Table 4.37

Net profit to total loan and advances of NIBL

(in million)

Years	Net Profit	Loan and Adv.	Ratio%
2006/07	350.54	12776.21	2.74
2007/08	501.40	17286.43	2.90
2008/09	696.73	26996.65	2.58
2009/10	900.62	36241.21	2.49
2010/11	1265.95	40318.31	3.14
Mean			2.77
Standard Deviation			0.52

Source: Annual reports

Table 4.37 depicts net profit to total loan and advances of NIBL over five years. The trend shows increment in net profit, loan, and advances of NIBL. The ratio net profit to loan and advances has grown up to 2.90% year 2006/07 then it has decreased to 2.49% by the year 2008/09. In the year 2009/10 ratio increases up to 3.14%. Even after the growth in the net profit and total loan and advances, this is due to low growth rate in the profit side. The mean is 2.77% with the standard deviation of 0.52%.

Table 4.38

Net profit to total loan and advances of BOK

(in million)

Years	Net Profit	Loan and Adv.	Ratio%
2006/07	202.44	7259.08	2.79
2007/08	262.38	9399.33	1.48
2008/09	361.50	12462.64	2.90
2009/10	461.73	14647.30	3.15
2010/11	509.26	16664.93	3.06
Mean			2.68
Standard Deviation			0.68

Source: Annual report

Table 4.38 depicts net profit to loan and advances of BOK of five years period. In both sides, there has been fluctuating trend in every year. The ratio is highest in the year 2009/10 with 3.15% and lowest in the year 2007/08 with 1.48%. This might be due to difference in the interest rate of their lending. The mean ratio is 2.68% with the deviation of 0.68%.

Table 4.39

Comparative analysis of Net profit to total loan and advances

YEARS	BOK	NIBL
2006/07	2.79	2.74
2007/08	1.48	2.90
2008/09	2.90	2.58
2009/10	3.15	2.49
2010/11	3.06	2.77
MEAN	2.68	3.14
S.D	0.68	0.52

Figure 4.15

Comparative analysis of net profit to total loan and advances

Table 4.39 and figure 4.16 depicts the comparative analysis of net profit and loan and advances of the two sampled banks. The mean ratio of NIBL and BOK are 3.14% and 2.68% respectively. Bok and NIBL has been improving in the recent years in this ratio.

4.6. Analysis of coefficient of correlation

Table 4.40

Correlation between Total deposit, loan and advances of BOK.

(In million)

Years	Total Deposit	Loan and Advances
2006/07	10485	7259.08
2007/08	12389	9399.33
2008/09	15834	12462.64
2009/10	18084	14647.30
2010/11	20316	16664.93
Correlation (r)		0.999
P.E		0.0006
6 P.E		0.0036

Source: Appendix-II

Table 4.40 depicts the correlation coefficient of total deposits and loan and advances of BOK. The correlation coefficient and probable error of BOK is 0.999 and 0.0006 respectively and correlation is greater than six times of probable error i.e. 0.999>6*0.0006 which means loan and advances are highly positively correlated with total deposits. Increase in total deposits also increases the loan and advances.

Table 4.41

Correlation between Total deposit, loan, and advances of NIBL.

(In million)

Years	Total Deposit	Loan and Advances
2006/07	18927.	12776.
2007/08	24488.	17286.
2008/09	34451	26996.
2009/10	46698.	36827
2010/11	50094	40948
Correlation (r)		0.999
P.E		0.0006
6 P.E		0.0036

Source: Appendix-II

Table 4.41 depicts the coefficient correlation between total deposits and loan and advances. The correlation and probable error is 0.999 and 0.0006 respectively. Correlation coefficient is greater than six times of probable error i.e. 0999>6*0.0006 (r > 6P.E.) which means total deposits and loan and advances of NIBL are highly positively correlated. The increases in the deposits also increase the loan and advances.

Table 4.42

Correlation Between loan and Advances and net Profits of BOK.

(In million)

Years	Loan and Advances	Net Profit
2006/07	7259.08	202.44
2007/08	9399.33	262.38
2008/09	12462.64	361.50
2009/10	14647.30	461.73
2010/11	16664.93	509.26
Correlation (r)		0.997
P.E		0.0018
6 P.E		0.0108

Source: Appendix- III

Table 4.42 depicts the correlation coefficient and probable error of loan and advances and net profits of BOK. Correlation coefficient and probable error remains 0.997 and 0.0018 respectively and the correlation is higher than six times the probable error. i.e. 0.997>0.0108 which means loan and advances and net profits highly positively correlated of BOK. Net profits increases with the increase in the total loan and advances.

Total 4.43

Correlation between loan, advances, and net profits of NIBL.

(In million)

Years	Loan and Advances	Net Profit
2006/07	12776.21	350.54
2007/08	17286.43	501.40
2008/09	26996.65	696.73
2009/10	36241.21	900.62
2010/11	40318.31	1265.95
Correlation (r)		0.966
P.E		0.0202
6 P.E		0.1209

Source: Appendix- III

Table 4.43 depicts the correlation coefficient and probable between loan and advances to net profits of NIBL. Correlation coefficient and the probable is 0.966 and 0.0202 respectively and the correlation coefficient is higher than six times the probable error i.e. 0.966>0.1209 which means loan and advances and net profits of NIBL are highly positively correlated. Net profit tends to grow with the grow in the loan and advances.

4.7 Trend Analysis

The main objective of this part is to analyze the trend of prospective net profit in future by analyzing the trend of past data of the banks. Trend analysis is very useful and commonly applied tool to forecast future event in quantitative term on the basis of tendencies in the dependent variable in the past period. Straight-line trend implies that irrespective of seasonal, cyclic and irregular fluctuation the trend value increases or decreases by absolute amount per unit of time.

A. Trend Analysis of Total Deposit

Trend analysis of Total Deposits shows the pattern of total deposit in the banks. Trend helps the investor to estimate its future deposit. Prediction of total deposit for the next four Fiscal years is done here.

Table 4.44

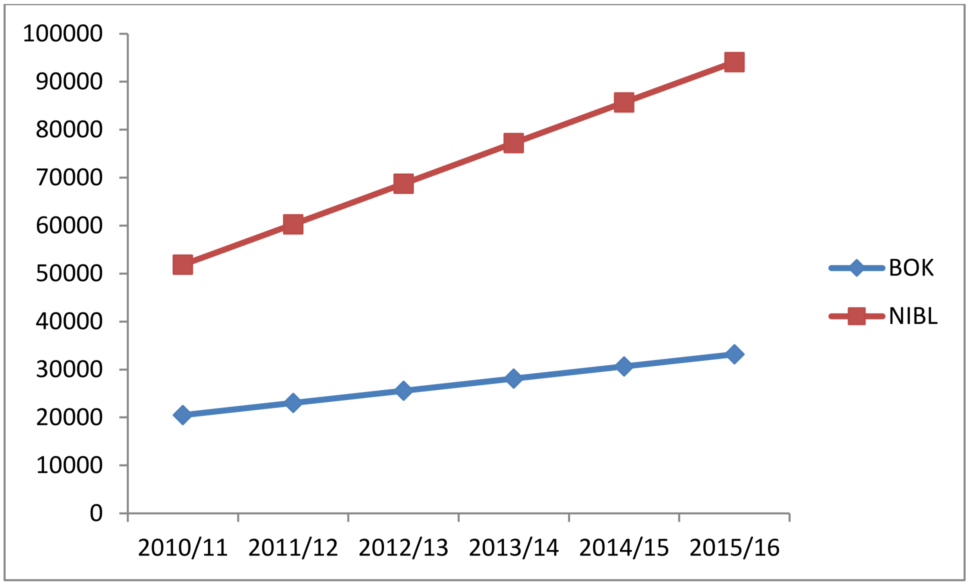
Trend Analysis of total Deposit

			Actual	Forecasted				
Name	a	b	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
BOK	15421.6	2535.7	20493	23028.7	25564.4	28100.1	30635.8	33171.5
NIBL	34931.6	8454.40	51840.4	60294.8	68749.2	77203.6	85658.6	94113.0

Calculation – Appendix-IV

Figure 4.16

Trend Analysis of total Deposit



Above table 4.44 and figure 4.17 shows the trend analysis of the total deposit for the coming five Fiscal Years of BOK and NIBL. Total Deposits of both the banks are increasing. It shows good future of the banks if they can regularly increase their deposits as per the prediction as stated above table.

B. Trend Analysis of Loans and Advances

Loans and advances of the two commercial banks for the coming five years are forecasted here. According to the calculation done in Appendix, the future forecast of the loans and advances of the above mentioned banks is shown in the table below.

Table 4.45

Trend Analysis of Loan & Advances

			Actual	Forecasted				
Name	a	b	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
BOK	12086.65	2405.96	16898.42	19304.38	21710.34	24116.3	26522.26	28928.22
NIBL	26966.6	7588.50	42143.6	49732.1	57320.6	64909.1	72497.6	80086.1

Calculation – Appendix-IV

Figure 4.17

Trend Analysis of Loan & Advances

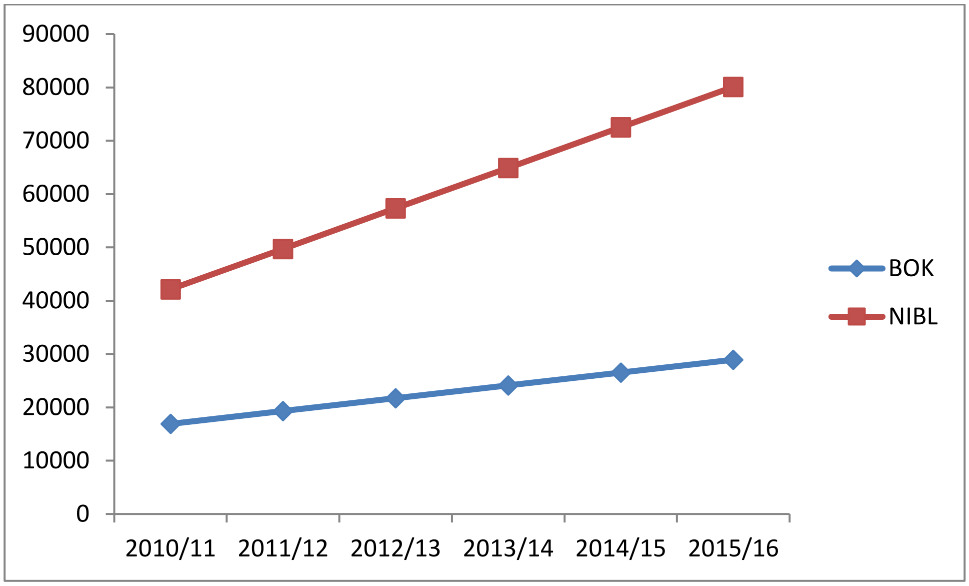


Table 4.45 and figure 4.18 presented above predicts the Loans and Advances of the commercial banks for forgoing five years 2011/12, 2012/13, 2013/14 and 2014/15 and 2015/16. Loans and advances of both the banks are in increasing trend but NIBL is more higher than BOK. For the coming years also it is expected to increase as per the calculation done in this study.

4.8 Major Findings of the Study

From the above financial and statistical analysis of samples commercial banks, following are the major findings:

- NIBL has been able to maintain high CRR ratio among four banks since first two fiscal year i.e. 2006/07 and 2007/08. It means NIBL have high liquidity than BOK. The standard deviation is lower of Bok with 0.33% to NIBL with 2.8% respectively. It means the fluctuation in CRR ratio is lower of BOK in relation to NIBL.
- Among them, NIBL and BOK with 9.92% and 16.34% respectively. In the year, 2006/07 BOK has higher investment in government securities than NIBL i.e. maximum of 25.35%. Among the sample Banks, Nepal investment Banks has maintained minimum ratio in all the years. The trend shows the decreasing ratio in later years for all the banks due to diversification of investment in other sectors.

- Among them, NIBL have upward and downward in their ratio with the lowest in the year 2006/07 with 68.13%. Whereas the ratio has been increased in case of BOK which is increased from 71.42% in year 2006/2007 to 83.90% in the year 2010/11.BOK has the highest average ratio of loan and advances to total deposit with 79.34%. The standard deviation is also high in the case of BOK with 5.84%, which means they have high fluctuation in their ratios.
- Among the two sampled banks, NIBL bank has lowest non-performing assets to total assets ratio with the average of 0.87% compared to 1.32% of BOK. Besides that both banks has performed well in managing the non-performing assets low even in the higher increment in the total assets side.
- Among the two sampled banks, NIBL bank has maintained the low mean non-performing assets to total loan and advances ratio with 1.33%. In relation to that of BOK is 1.94%.
- Among the two sampled banks. NIBL bank has maintained lowest mean ratio of loan loss provision to total loan and advances with 2.51%. Both banks have managed to lower the ratio with their better performance. BOK has the higher ratio with average of 2.51%.
- Among the two banks, NIBL banks have provisioned over the standard of 1% in the year 2006/07 whereas other BOK banks has failed to meet the standard. However, in other years all their banks have met the standard directed by NRB.
- Among the two sampled banks NIBL has met the standard in initial two years and year 2010/11. However, they failed to meet the standard in year 2008/09 and 2009/10 that shows their poor performance in maintaining standard. The average ratio of NIBL is 23.43%, which is below the standard. BOK has met the standard in all following years.
- Among the two banks, NIBL has managed to meet the standard of 50% as per NRB directive in 5 fiscal years and l failed to meet in the year 2009/10. Likewise, BOK have failed to meet the standard in three fiscal years with their average ratio of 49.99% respectively i.e. below the standard directed by NRB.
- Among the two sampled banks, only NIBL has managed to meet the standard 100% in year 2008/09 2009/10 and 2010/11. BOK has failed to meet the standard but the provision is only short by some percent. NIBL has failed to meet the standard in initial two years but the ratio is very near to the standard.

- All two banks have highest proportion of their loan and advances in the production sector followed by the wholesaler and retailer. BOK has lower lending in production sector and higher lending in wholesaler and retailer as compared to NIBL. NIBL has lower proportion of loan in construction sector as compared to BOK. i.e. Invested around 4.09%. Both banks have lent very low in agriculture and mining sectors and no lending in local government.
- NIBL has increased collecting interest bearing deposits but BOK has managed to reduce the ratio, which means their non-interest bearing deposits is growing. NIBL has highest interest bearing deposits. Bok and NIBL has been improving in the recent years in the ratio where NSBI has lower ratio in recent years.
- Analysis of the correlation coefficient found that both sample banks have highly positive correlation to the total deposits and loan and advances. When there is an increase in the deposit, there is increase in the loans. Banks have mostly utilized their deposits in the loan and advances rather than investing in other areas. Similarly, there is highly positive correlation between net profits and total loan and advances of both sampled commercial banks. With the increase in the total loan and advances, banks are able to generate higher profits.
- Total Deposits of both the banks are increasing. It shows good future of the banks if they can regularly increase their deposits as per the prediction.
- Loans and advances of both the banks are in increasing trend but NIBL is higher than BOK. For the coming years also it is expected to increase as per the calculation done in this study.

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter includes the summary conclusion and recommendation of the study conducted based on the findings through the analysis with various financial and statistical tools and technique. After the recognition of the situation and the status through various analyses, the major part is to come into the conclusion and give the proper recommendation for the study that has geared up in this chapter.

5.1 Summary

Screening the present financial situation and the economic status of the country, we can find the growth in the quantities of the financial institutions from commercial banks to the cooperatives in bigger figure from the urban cities to the remote villages but the financial institutions require giving accurate control over the quality and the performance. One of the major problems in the present economic circumstance is the liquidity crisis.

NRB has directed all the commercial banks to uphold the CRR of 5.5% and invest certain percent of their deposits on government securities through the purchase of T-Bills and Development Bonds of governments. Reviewing at the five years CRR ratio of the three sampled banks, all looked to be comfortable in maintaining the CRR as directed by NRB. Investment in the government securities of all three sampled banks average is above 9.5% that also helped them in minimizing the liquidity risk but the ratio has fallen in the last year for all the banks that the banks should cautioned.

Commercial banks major activity is to collect the deposits from the surplus unit and to lend to the deficits units and earn some profit from the spread. In this process, they need to have some control in the lending ratio to manage the liquidity risk. The average credit to deposit (CD) ratio of both sampled banks are between 68% to 79% which lies in the optimum position in the present economic circumstances but the recent trend shows the increment in this ratio which the banks needs to control the growth.

The loan and advance of the commercial banks should be collect within a certain date. If the loan and advance not collected within a due date bank has to set certain percentage as a loan loss provision which, negatively affect performance and goodwill of the commercial bank. The average non-performing assets to loan and advance of NIBL and BOK are 1.33% and 1.94% respectively. NIBL bank has the lowest loan loss provision than BOK. Similarly, the non-performance assets to total assets ratio for NIBL with 0.87%, Bok with 1.32% respectively. With the analysis, it has found out that the provisioning by both banks are not according to the NRB standard as the analysis shows the short falls in the ratios in different years by these banks.

Both banks have managed to lower the ratio with their better performance. BOK has the highest ratio among the four banks with average of 2.17%, whereas 2.51% of NIBL. Among the two banks, NIBL banks have provisioned over the standard of 1% in the year 2006/07 whereas BOK banks has failed to meet the standard. However, in other years BOK have met the standard directed by NRB. NIBL has met the standard in initial two years and year 2010/11. However, they failed to meet the standard in year 2008/09 and 2009/10 that shows their poor performance in maintaining standard. The average ratio of NIBL is 23.43%, which is below the standard. BOK has met the standard in all following years. Among the two sample banks, NIBL has managed to meet the standard of 50% as per NRB directive in 5 fiscal years and l failed to meet in the year 2009/10. Likewise, BOK have failed to meet the standard in three fiscal years with their average ratio of 49.02 and 49.99% respectively i.e. below the standard directed by NRB. Both banks have highest proportion of their loan and advances in the production sector followed by the wholesaler and retailer. BOK has lower lending in production sector and higher lending in wholesaler and retailer as compared to NIBL. NIBL has lower proportion of loan in construction sector as compared to BOK i.e. invested around 4.09%. both banks have lent very low in agriculture and mining sectors and no lending in local government. BOK has the lowest mean ratio with 60.45% in comparison with the 68.43 % of NIBL respectively. In case of NIBL, the ratio has increased that means they are collecting interest bearing deposits but BOK has managed to reduce the ratio, which means their non-interest bearing deposits is growing. Among the two sample banks, NIBL has highest interest bearing deposits. NIBL and BOK of 3.14% and 2.68%. Bok and NIBL has been improving in the recent years in the ratio.

The loan and advances granted by the commercial banks in the different sectors plays a vital role in the development of the particular sectors and the situation of the economy. The loan and advances portfolio of two sampled banks shows the maximum amount of the loan has been sanctioned to the production sector with around 28% to 36%. Similarly, the wholesaler and retailer remained the second in getting loans of these commercial banks with around 16% to 19%. BOK has lent 12.90% in transportation sector where the other two has lent around 5% in the same. In services sector, NIBL has lent the most with 11.68%. In the agriculture and mining industries all the three banks has negligible lending below 1%.Organization can earn profit by maximizing the investment or by minimizing the costs. Commercial can higher profits by collecting the low cost deposits and investing the collection in higher investment. Net profits of the commercial banks have highly positively correlated with the total loan and advances. The correlation analysis of two sampled banks shows that the increased in the total loan and advances also increased the net profits. Similarly, the total deposits have also highly positively correlated with the loan and advances. The increase in the total deposits also increased the loan and advances of the banks.

5.2 Conclusion

Commercial banks function in the same environment, they have to be highly aware with the environment and take the proactive measure to be safe and trustworthy. High proportion of the commercial banks lending toward real estate has been a major concern in the present context. Crisis of the physical flow of cash few months back and the liquidity crisis in the financial market have been extremely affecting the commercial banks. The rise in the inter-bank interest rate, restriction of lending to the real estate to certain percent, and maintaining the optimum cash deposit ratio are the major challenges for the commercial banks. Current economic scenario is the result of the past performance of the financial institutions. With the above challenges and the uncertainty in the financial market, commercial banks have to be the best and provide the quality service to continue to exist. Among the two sample banks, NIBL is better than BOK. BOK is the rising commercial bank.

However, the banks should focus in some areas to meet the standard for loss provision. In other words, it has to focus on adequate liquidity management. NIBL has performed better every year with the higher growth rate in most of the sectors. NIBL has managed to reduce their loan losses in the recent years and able to maximize the profit. They also have some problem with the non-performing loan provisioning where the bank should put an eye on. Yet the bank is performing hard to meet every standard. BOK being a rising bank has been performing well in recent years. Both banks had sufficient liquidity in these five years with higher CRR and the investment in government securities. They are able to maintain the optimum Credit to Deposit ratio and achieved satisfying growth rate in net profits. In the case of loan loss provisioning, they have also failed in some way where they should focus on and act upon harder to be in the standard.

Commercial banks plays crucial role in the development of the economy of the country. Their lending towards different sectors helps them to grow up and enlarge. The lending to the productive sectors helps to raise the economy. The loan and advances portfolio of the two sampled banks show the major part of the lending on the production sector followed by wholesaler and retailer sector. Still the most of the lending are towards production sector. There is not any enhancement in these sectors. Most of the production houses have gone down due to political unsteadiness and their inner issues. The investment in the service sector is also comparatively very low which plays an important role in the development of the country. There is very low investment in the agriculture sector that used to be the vital part of the country's economy. Since the environment not at all is the same of all the sectors, commercial banks must examine the situation of every sector time to time to approve the security of their lending and to recognize the new areas to invest.

5.3 Recommendation

After analyzing the productivity measurement of the two samples commercial banks of Nepal, recommendation made as follows:

- Both NIB and BOK commercial banks has managed properly sufficient CRR ratio maintaining above 5.5% as directed by NRB. NIBL and BOK have higher ratios that remain idle in their account. The idle fund should invest in high return generating areas of investment.
- Profit maximization is possible through higher investment in productive sector by reducing the cost. Bank should focus in reducing cost by focusing in collecting low cost deposits and investing in higher returns areas.

- They should withhold the loan from the poor industries to the growing industries to be on the safe side and besides looking for the maximizing the profits they should also focus on lending to the long term projects which are crucial for the economy to boom like hydro-powers, infrastructure building and construction though the return is after long time.
- They should make the proper long term planning in these areas rather than focusing on the yearly profits which ensures the long- term growth, profits and goodwill of commercial banks.
- Investment in government securities seems declining in the year 2008/09 of all the banks, later in the year 2009/10 it seems on increasing trend that could be good for them to bid the government securities where they can earn interest. Instead of maintaining excess, CRR NIBL and BOK could upward bid for government securities where ultimately they can earn more interest.
- Non-performing loan to total loan ratio of all the three banks are satisfying and in decreasing trend. However, they have to act upon harder to keep this ratio very low.
- In comparisons of both samples commercial banks, BOK has higher loan loss provision than BOK. They should focus on reducing the non-performing loan because higher loan loss provision negatively affects the profit.
- NIBL bank has failed to achieve the provisioning ratio of substandard loan in recent years so the bank should increase their provisioning for the betterment for goodwill than BOK.
- Both the banks have failed to maintain the standard of 50% all year. However, in recent year they are trying to maintain standard. They should maintain proper standard every year according to NRB directives.
- Sector wise lending of both BOK and NIBL banks is highly concerted in some areas. Their higher proportion in production sector has yet positively affected the economy. Their higher proportion in service industries is very low and negligible in agriculture industries. Both banks should focus on lending to the productive sectors rather than focus in productive lending and long-term projects like hydropower infrastructure building, construction and mining and service sectors that contributes in the economic growth.

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Appendix-I

Comparative analysis of CRR

YEARS	NIBL (X)	BOK (Y)	$(X-\bar{X})$	$(X-\bar{X})^2$	$(Y-\bar{Y})$	$(Y-\bar{Y})2$
2006-07	13.61	7.64	2.99	8.9401	-0.21	0.0441
2007-08	10.47	8.02	-0.15	0.0225	0.17	0.0289
2008-09	10.91	7.57	0.29	0.0841	-0.28	0.0784
2009-10	10.32	7.58	-0.3	0.09	-0.27	0.0729
2010-11	7.77	8.32	-2.85	8.1225	0.47	0.2243
sum	$\sum X$ =53.10	$\sum Y$ =39.25		$\sum(X-X)^2$ =17.26		$\sum(Y-Y)^2$ =0.4486
Mean	$\bar{X}$ =10.62	$\bar{Y}$ =7.85				

NIBL

Mean $(\overline{X}) = \frac{\sum X}{n} = \frac{53.10}{5}$ =10.62

Standard Deviation $(\delta) = \sqrt{\frac{\sum(X-X)^2}{n}} = \sqrt{\frac{17.26}{5}}$ =2.08

BOK

Mean $(\overline{Y}) = \frac{\sum Y}{n} = \frac{39.25}{5}$ =7.85

Standard Deviation $(\delta) = \sqrt{\frac{\sum(Y-\bar{Y})^2}{n}} = \sqrt{\frac{0.4486}{5}}$ =0.33

Note: all the calculation of mean and standard deviation is calculated in the same manner.

Appendix-II

NIBL

Years	Total Deposit (X)	Loan and Advances(Y)	XY	X^2	Y^2
2006/07	18927	12776	241811352	358231329	163226176
2007/08	24488	17286	423299568	599662144	298805796
2008/09	34451	26996	930039196	1186871401	728784016
2009/10	46698	36827	1719747246	2180703204	1356227929
2010/11	50094	40948	2051249112	2509408836	1676738704
	174658	**134833**	**5366146474**	**6834876914**	**4223782621**

Correlation (r)	0.999
P.E	0.0006

Correlation coefficient, r = $\dfrac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$

r = $\dfrac{5\times 5366146474 - 174658\times 134833}{\sqrt{5\times 6834876914-(174658)^2} - \sqrt{5\times 4223782621-(134833)^2}}$ = 0.999

Probable Error, P.E. = 0.6745 × $\dfrac{1-r^2}{\sqrt{n}}$ = 0.6745 × $\dfrac{1-0.998}{\sqrt{5}}$ = 0.0006

BOK

Years	Total Deposit (X)	Loan and Advances(Y)	XY	X^2	Y^2
2006/07	10485	7259.08	76111453.8	109935225	52694242.45
2007/08	12389	9399.33	116448299.4	153487321	88347404.45
2008/09	15834	12462.64	197333441.8	250715556	155317395.8
2009/10	18084	14647.3	264881773.2	327031056	214543397.3
2010/11	20316	16664.93	338564717.9	412739856	277719891.9
	77108	**60433.28**	**993339686**	**1253909014**	**788622331.9**

Correlation (r)	0.999
P.E	0.00032

Correlation coefficient, r = $\dfrac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$

$$r = \frac{5 \times 993339686 - 77108 \times 60433.28}{\sqrt{5 \times 1253909014 - (77108)^2} - \sqrt{5 \times 788622331.9 - (60433.28)^2}} = 0.999$$

Probable Error, P.E. = $0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.998}{\sqrt{5}} = 0.0006$

Appendix- III

NIBL

Years	Loan And Advances (X)	Net Profit(Y)	XY	X²	Y²
2006/07	12776.2	350.54	4478572.653	163231542	122878.2916
2007/08	17286.4	501.4	8667416.002	298820662.1	251401.96
2008/09	26996.7	696.73	18809375.95	728819111.2	485432.6929
2009/10	36241.2	900.62	32639558.55	1313425302	811116.3844
2010/11	40318.3	1265.95	51040964.54	1625566121	1602629.403
	133619	**3715.24**	**115635887.7**	**4129862739**	**3273458.7**
Correlation (r)		0.966			
P.E		0.0202			

Correlation coefficient, $r = \frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$

$$r = \frac{5 \times 115635887.7 - 133619 \times 3715.24}{\sqrt{5 \times 4129862739 - (133619)^2} - \sqrt{5 \times 3273458.7 - (3715.24)^2}} = 0.966$$

Probable Error, P.E. = $0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.9332}{\sqrt{5}} = 0.0202$

BOK

Years	Loan And Advances (X)	Net Profit(Y)	XY	X²	Y²
2006/07	7259.08	202.44	1469528.16	52694242.45	40981.9536
2007/08	9399.33	262.38	2466196.21	88347404.45	68843.2644
2008/09	12462.6	361.5	4505244.36	155317395.8	130682.25
2009/10	14647.3	461.73	6763097.83	214543397.3	213194.5929

2010/11	16664.9	509.26	8486782.25	277719891.9	259345.7476
	60433.3	**1797.31**	**23690848.8**	**788622331.9**	**713047.8085**
Correlation (r)		0.977			
P.E		0.0018			

Correlation coefficient, r = $\dfrac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$

r = $\dfrac{5\times 23690848.8 - 60433.3\times 1797.31}{\sqrt{5\times 788622331.9 - (60433.3)^2} - \sqrt{5\times 713047.8085 - (1797.31)^2}}$ = 0.977

Probable Error, P.E. = 0.6745 × $\dfrac{1-r^2}{\sqrt{n}}$ = 0.6745 × $\dfrac{1-0.9545}{\sqrt{5}}$ = 0.0018

Appendix-IV

Total Deposit of BOK

Year	X=X-A(3)	Total Deposit (Y)	XY	X^2
2006/07	-2	10485	-20970	4
2007/08	-1	12389	-12389	1
2008/09	0	15834	0	0
2009/10	1	18084	18084	1
2010/11	2	20316	40632	4
	0	**77108**	**25357**	**10**

So that the straight line trend Yc = a + bx

Assume,

A= 2008/09

Where,

a = $\dfrac{\Sigma Y}{N} = \dfrac{77108}{5}$ = 15421.6

b = $\dfrac{\Sigma XY}{\Sigma X^2} = \dfrac{25357}{10}$ = 2535.7

For 2010/11,

Yc = 15421.6+ 2535.7 X

$= 15421.6 + 2535.7 \times 2$
$= 20493$

Now, for coming Years,

Forecasted Trend Line of Total Deposit of BOK (In Million)

Fiscal Year	**X**	**Yc** = 15421.6+ 2535.7 X	Total Loan and Advances **(Y_c)**
2011/12	(2011/12-2008/09) = 3	Yc = 15421.6+ 2535.7 × 3	23028.7
2012/13	(2012/13-2008/09) = 4	Yc = 15421.6+ 2535.7 × 4	25564.4
2013/14	(2013/14 - 2008/09) = 5	Yc = 15421.6+ 2535.7 × 5	28100.1
2014/15	(2014/15 - 2008/09) = 6	Yc = 15421.6+ 2535.7 × 6	30635.8
2015/16	(2015/16 - 2008/09) = 7	Yc = 15421.6+ 2535.7 × 7	33171.5

Total Deposit of NIBL

Year	X=X-A(3)	**Total Deposit (Y)**	XY	X^2
2006/07	-2	18927	-37854	4
2007/08	-1	24488	-24488	1
2008/09	0	34451	0	0
2009/10	1	46698	46698	1
2010/11	2	50094	100188	4
	0	**174658**	**84544**	**10**

So that the straight line trend Yc = a + bx

Assume,

A= 2008/09

Where,

$$a = \frac{\Sigma Y}{N} = \frac{174658}{5} = 34931.6$$

$$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{84544}{10} = 8454.4$$

For 2010/11,

$Yc = 34931.6 + 8454.4 X$
$= 34931.6 + 8454.4 \times 2$
$= 51840.4$

Now, for coming Years,

Forecasted Trend Line of Total Deposit of NIBL (In Million)

Fiscal Year	**X**	**Yc** = 34931.6 + 8454.4 X	Total Loan and Advances **(Y_c)**
2011/12	(2011/12-2008/09) = 3	Yc = 34931.6 + 8454.4 × 3	60294.8
2012/13	(2012/13-2008/09) = 4	Yc = 34931.6 + 8454.4 × 4	68749.2
2013/14	(2013/14 - 2008/09) = 5	Yc = 34931.6 + 8454.4 × 5	77203.6
2014/15	(2014/15 - 2008/09) = 6	Yc = 34931.6 + 8454.4 × 6	85658.6
2015/16	(2015/16 - 2008/09) = 7	Yc = 34931.6 + 8454.4 × 7	94113.0

Total Loan and advances of BOK

Year	X=X-A(3)	**Total Loan and advances (Y)**	XY	X^2
2006/07	-2	7259.08	-14518.2	4
2007/08	-1	9399.33	-9399.33	1
2008/09	0	12462.64	0	0
2009/10	1	14647.3	14647.3	1
2010/11	2	16664.93	33329.86	4
	0	**60433.28**	**24059.67**	**10**

So that the straight line trend Yc = a + bx

Assume,

A= 2008/09

Where,

$$a = \frac{\Sigma Y}{N} = \frac{60433.28}{5} = 12086.65$$

$$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{24059.67}{10} = 2405.96$$

For 2010/11,

$$Y_c = 12086.65 + 2405.96X$$
$$= 12086.65 + 2405.96 \times 2$$
$$= 16898.42$$

Now, for coming Years,

Forecasted Trend Line of Total Deposit of BOK (In Million)

Fiscal Year	**X**	**Yc = 12086.65+ 2405.96 X**	Total Loan and Advances **(Y_c)**
2011/12	(2011/12-2008/09) = 3	Yc = 12086.65+ 2405.96 × 3	19304.38
2012/13	(2012/13-2008/09) = 4	Yc = 12086.65+ 2405.96 × 4	21710.34
2013/14	(2013/14 - 2008/09) = 5	Yc = 12086.65+ 2405.96 × 5	24116.3
2014/15	(2014/15 - 2008/09) = 6	Yc = 12086.65+ 2405.96 × 6	26522.26
2015/16	(2015/16 - 2008/09) = 7	Yc = 12086.65+ 2405.96 × 7	28928.22

Total Loan and advances of NIBL

Year	X=X-A(3)	**Total loan and advance (Y)**	XY	X^2
2006/07	-2	12776	-25552	4
2007/08	-1	17286	-17286	1
2008/09	0	26996	0	0
2009/10	1	36827	36827	1
2010/11	2	40948	81896	4
	0	**134833**	**75885**	**10**

So that the straight line trend Yc = a + bx

Assume,

A= 2008/09

Where,

$$a = \frac{\Sigma Y}{N} = \frac{134833}{5} = 26966.6$$

$$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{75885}{10} = 7588.5$$

For 2010/11,

$$
\begin{aligned}
Yc &= 26966.6 + 7588.5\,X \\
&= 26966.6 + 7588.5 \times 2 \\
&= 42143.6
\end{aligned}
$$

Now, for coming Years,

Forecasted Trend Line of Total Deposit of NIBL (In Million)

Fiscal Year	**X**	**Yc** = 26966.6+ 7588.5 X	Total Loan and Advances **(Y_c)**
2011/12	(2011/12-2008/09) = 3	Yc = 26966.6+ 7588.5 × 3	49732.1
2012/13	(2012/13-2008/09) = 4	Yc = 26966.6+ 7588.5 × 4	57320.6
2013/14	(2013/14 - 2008/09) = 5	Yc = 26966.6+ 7588.5 × 5	64909.1
2014/15	(2014/15 - 2008/09) = 6	Yc = 26966.6+ 7588.5 × 6	72497.6
2015/16	(2015/16 - 2008/09) = 7	Yc = 26966.6+ 7588.5 × 7	80086.1