## Credit Position Analysis of Commercial Banks

## Of

Nepal
(A Case Study of NABIL Bank, Nepal Investment Bank \& Bank of Kathmandu)

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## RECOMMENDATION

This is to certify that the thesis
Submitted by:
Ms. Gayatri Thapa

Entitled
"Credit Position Analysis of Commercial Banks of Nepal"
has been prepared as approved by this department in the prescribed format of Faculty of Management. This report is forwarded for examination.

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and found the thesis to be the original work of student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for Master's Degree in Business Studies (MBS)

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# TRIBHUVAN UNIVERSITY <br> Faculty of Management <br> Shanker Dev Campus 

## DECLARATION


#### Abstract

I hereby declare that the work reported in this thesis entitled "Credit Position Analysis of Commercial Banks of Nepal" 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 for the degree Master's in Business Studies under supervision of Mrs. Ruchila Pandey, Associate Professor of Shanker Dev Campus.


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Gayatri Thapa

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## CHAPTER - I

## INTRODUCTION

### 1.1 Background of the Study

Bank provides opportunity to the people for the participation in the development process of the country via issuing shares and accepting deposits from them. Then bank can mobilize and invest such accumulated resources into field of agriculture, trade commerce, industry, tourism, and hydroelectricity project etc.

Nepal's first commercial bank, the Nepal Bank Limited, was established in 1937. The government owned 51 percent of the shares in the bank and controlled its operations to a large extent. Nepal Bank Limited was headquartered in Kathmandu and had branches in other parts of the country. Presently, there are 30 commercial banks working all over the country.

Nepal Rastra Bank was established in 1956 as the central bank. Its function is to supervise commercial banks and to guide the monetary policy of the nation. Its major aims are to regulate the issue of paper money; secure countrywide circulation of Nepalese currency and achieve stability in its exchange rates; mobilize capital for economic development and for trade and industry growth; develop the banking system in the country, thereby ensuring the existence of banking facilities; and maintain the economic interests of the general public. Nepal Rastra Bank also is to oversee foreign exchange rates and foreign exchange reserves.

### 1.2 An Overview of Credit Management

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 information and methods of credit analysis.

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 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 land, including acceptances; interbank transactions, trade financing, foreign exchange transactions and guarantees and the settlement of transactions.

## Credit Management

Credit is regarded as the most income generating assets especially in commercial banks. Credit is regarded as the heart of the commercial banks in the sense that; it occupies large volume of transactions, it covers the main part of the investment; the most of the investment activities based on credit. 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 can make the customer status. Similarly, it provides to trade and industry, the government can 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. . In the field of banking transaction the term of credit referred to the loan

Credit 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 is the sum amount of money lent by the creditor (Bank) to the borrower (Customers) either on the basis of security or without security.

### 1.3 Profile of the Bank

Nabil Bank Ltd.

Nabil Bank Limited with its mission to be the $1^{\text {st }}$ Choice Provider of Complete Financial Solutions ventured into capital market related activities and incepted its fully owned subsidiary - "Nabil Investment Banking Ltd. (Nabil Invest)" which renders investment banking related services to the masses.

The Institutional Promoter i.e. Nabil Bank Limited, the first foreign joint venture bank of Nepal established in July 1984, today is a pioneer in introducing many innovative products and services in the domestic banking sector representing a milestone in the banking history of Nepal. It started an era of modern banking with customer satisfaction as a focal point for doing business. With 43 points of representation across the nation and multiple correspondent banks around the globe, the Bank is serving a wider clientele.

Thus, Nabil Invest targets to establish itself as one of the leading Merchant Bankers in its short span of operation and as an Investment Banker with strong professional expertise in long run introducing innovative products and services in the Nepalese capital market with strict adherence to prevailing rules and regulations.

Nabil is 1st joint venture bank of Nepal. After getting approval from Nepal Rastra Bank it started operating from 12th July 1984 from Durbarmarg in Kathmandu. Before 1984 in Nepal there were only government or semi government banks in operation in Nepal. In 1984, the government under Banijaya bank Act 2031 part 4 decided to allow the formation of joint venture bank. Under this provision Dubai Bank Ltd. Registered in the United Arab Emirates along with Nepalese promoters decided to open a bank name "Nepal Arab Bank Ltd." And now popularly known as "Nabil". So Nabil had a joint venture with Emirates bank International limited (EBIL) with $50 \%$ equity participation on both sides. In 1995 may EBIL sold out these shares to National bank Ltd. Dhaka. After 11 years, Nabil now has the joint venture with national bank Ltd. Dhaka with 50-\% equity participation since 1995 AD. Out of remaining $50 \%-20 \%$ of its equity is held by financial institutions and $30 \%$ is held by general public.

Share subscription, capital structure and BOD of Naibl BanK:

## Subscription

National Bank Limited, Dhaka

## \% of Holding

50.00\%

NIDC
Rastriya Beema Sanstha
Nepal Stock Exchange 0.34\%
General Public
Share Structure
Authorized Capital
Issued Capital
Paid up Capital
10.00\%
9.66\% $30.00 \%$

NRs.
1600,000,000

## 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 partner (holding 50\% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, 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. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

We believe that NIBL, which is managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. We are sure that your choice of a bank will be guided among other things by its reliability and professionalism.

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## Share Subscription and Capital Structure of NIBL

## Subscription

A Group of Companies $50.00 \%$
Rastriya Banijya Bank 15.00\%
Rastriya Beema Sanstha $15.00 \%$
General Public 20.00\%
Share Structure
Authorized Capital 4,000,000,000
Issued Capital
2,409,097,700
Paid up Capital

Bank of Kathmandu Ltd.
Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. We would like to express our sincere gratitude to our customers, shareholders, employees and other stakeholders for their support and co-operation for leading the bank to the present height of achievements. We wish to reiterate here that whatever activity we undertake; we put in conscious efforts to glorify our corporate slogan, "We make your life easier". We 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. To highlight its few objectives: To contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive areas.

Its major objective is to contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive areas.

Share Subscription and Capital Structure of BOK

Subscription
Promoters

\% of Holding 41.81\%

General Public
Share Structure
Authorized Capital
Issued Capital
Paid up Capital
58.19\%

NRs.
1,000,000,000
844,397,900

### 1.4 Statement of the Problem

Within the sphere of the proposed study, there exist a considerable 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 transparency 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 FIs in exchange of information on the business entities etc. These contributed for higher level of impaired debt specifically in the banking sector.

There is concentration of credit in certain areas and also 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.

### 1.5 Objectives of the Study

i) To examine the level of the non-performing loan that exists within the banking industry of selected commercial bank.
ii) To assess the utilization of loan in different sectors by selected commercial bank.
iii) To provide suggestions for the future betterment of credit management system in the commercial banks.

### 1.6 Limitations of the Study

Main source of the data collection is from the banks publications which may not be always reliable because they may publish the reports according to their profit policy and market situation. There are some difficulties to get the sufficient information as banks hesitate to provide data easily. The study covers a few years of transaction period of selected banks. The basic purpose of the study is to fulfill the requirement for the Masters in Business Study, the study lacks sufficient time to collect information and analyze them.

Every study has its own limitation; all necessary data may not be available due to business secrecy. Being a student lack of the sufficient time, resources and proper information and data are not available are remains as the major limitations.

- This study is mainly concerned Three commercial bank and only that factor related with credit practices.
- Time constraints may limit the area covered by the study.
- The study based on the secondary information. However the base of the source of information is secondary. On part of secondary information official documents, annual report, web site, newspaper, and other relevant publications have been examined.
- In this study only selected financial and statistical tools and techniques are used. It is based only on latest six years data.
- This study is conducted only for suggestion not for directory.


### 1.7 Organization of the Study

The present study is organized in such way that the stated objectives can easily be fulfilled. The structure of the study will try to analyze the study in a systematic way. The study report has presented the systematic presentation and finding of the study. The study report is designed in five enchanters which are as follows:

## Chapter-I: Introduction

This chapter describes the basic concept and background of the study. It has served orientation for readers to know about the basic information of the research area, various problems of the study, objectives of the study and need or significance of the study. It is oriented for readers for reporting giving them the perspective they need to understand the detailed information about coming chapter.

## Chapter-II: Review of literature

The second chapter of the study assures readers that they are familiar with important research that has been carried out in similar areas. It also establishes that the study as a link in a chain of research that is developing and emerging knowledge about concerned field.

## Chapter-III: Research Methodology

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It describes about the various source of data related with study and various tools and techniques employed for presenting the data.

## Chapter-IV: Presentation and Analysis of data

This chapter analysis the data related with study and presents the finding of the study and also comments briefly on them.

## Chapter-V: Summary, Conclusion and Recommendation

On the basis of the results from data analysis, the researcher concluded about the
performance of the concerned organization in term of credit management and gives important suggestions for better improvement.

## CHAPTER - II

## Review of Literature

### 2.1 Conceptual Framework

Doing a research needs a deep study about the past information, relevant facts, and different views of the past researchers about the topic of the research. This shows a research what have done and what has to be done in the particular topic. For this purpose an attempt has been made to look into bank publications, periodicals and central bank's rules and regulations. In addition, different books, reports, journal and research studies published by various institution, unpublished dissertations submitted by Master Level students have been reviewed. Further, interaction programs related with the financial issues transmitted by the various television channels will be taken as a supportive concept.

### 2.1.1 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 cheques or bill of exchange. He 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 provided that 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 and every organization. But especially for the commercial banks and other financial institutions the sound knowledge of investment is the must 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. And, lending policy and investment in different securities also 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 coordinated and planned efforts pushes forward 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).

### 2.1.2 Concept of Commercial Bank

"A commercial bank is the bank which exchanges money, accepts deposit transfers loans and performs banking functions" (Commercial Bank Act, 2031 B.S.). "Principally commercial bank accepts deposits and provides loans, primarily to business firms there by facilitating the transfer of fund in economy" (Rose, 1989: 89) the commercial bank has its own role and contribution in the economic development. It is a resource for the economic development, it maintain economic confluence of various segments and extends credit to people" (Ronald, 1999: 87)
"A Bank is a business organization that's receives and holds deposits and funds from others, makes loans and extend credits and transfer funds by written order of depositors" (Grolier incorporation, 2000).

Commercial Banks function as an intermediary; accepting deposits and providing credits to the needy area. The primary source of funds for commercial bank are capital (shareholder equity) reserve (retain earning) and other main source of the commercial bank is current deposit issue of commercial paper bond etc. Commercial banks are restricted to invest their funds in corporate securities. They invest their funds in long term as well as short-term needs of any trade and industry. They grant credits in the form of cash credits and overdraft. Banks undertaking business with the objective of earning profits are commercial banks. Commercial banks pool scattered fund and channels it to productive use. Commercial Banks Apart from financing, they also render a variety of service like collection of bills and cheques, safekeeping of valuables, financial advising, agencies functions, keeping of guarantee etc to their value customers.

### 2.1.3 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, he also accepts the bills drawn by foreign exports.

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.

### 2.2 Concept of Credit

Credit is the amount of money lends by creditor (bank) to the borrower (customer) either on the basis of security or without security.

Sum of money lent by bank, credit and advance is an important item on the assets side of the balance sheet of commercial bank. Bank earns interest on loan and advance, which is one of the major sources of income for banks. Bank prepare credit portfolio otherwise it will not only add bad debts but also affect profitability adversely.(Varshney and Swamy,1979:6)

### 2.2.1 Types of credit

There are different types of credit which are mentioned below.

## Overdrafts:

It denotes the excess amount withdrawn over their deposits. In other words bank provide
sum limit of money to their value customer according to their believeness and level of transaction.

## Cash Credit

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

## Term Credit

It refers to money lent in lump sum to the borrowers. It is principle form of medium term
debt financing having maturities of 1 to 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 liabilities. It is granted to the customers to meet their working capital gap for supporting production process. A natural process develops in funds moving through the cycle are generated to repay a working capital credit.

## 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.

## Housing Credit (Real Estate Credit)

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

## 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 $\mathrm{L} / \mathrm{C}$. It is also known as importers letter of credit since the bank of importer do not open separate $\mathrm{L} / \mathrm{C}$ for the trade of same commodities (Jhonson, 1940:85).

### 2.2.2 Factors Affecting Credit Policy

Generally, the following factors are to be considered to make effective loan
management. It is also called the factors of credit policy. It helps to get effective credit worthiness.

## Industry Environment

It determines the nature of the industry structure, its attractiveness and the company's position within the industry, structural weakness of a company, which is disadvantaged, theaters first way out and security value.

## Financial Condition

It determines the borrowers capacity to repay through cash flow as the "First wayout". The strength of "second way-out" i.e; through collateral liquidation is also assessed. Further the possibility to fall back on income of sister concerns in case of financial crunch of the company condition theaters repayment capacity.

## Management Quality

It determines the integrity, competence and nature of alliances of borrowers management team. Weakness in replacements 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 manpower and technology used. Appropriate technical competencies of the manpower, the viability of the technology uses, availability of after sales service, cost of maintenance and replacement need to be evaluated.

## Security Realization

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

### 2.2.3 Lending Criteria

While screening a credit application, 5-cs to be first considered supported by documents. Character: Character is the analysis of the applicant as to his ability to meet the obligations put forth by the lending institution. For this analysis, generally
the following documents are needed. Memorandum and Article of Association. Registration certification. Tax registration certificate (Renewed) Resolution to borrow Authorization-person authorizing to deal with the bank. Reference of other lenders with whom the applicant has dealt in the past of bank A/C statement of the customer.

Capacity: It is describes the customer's ability to pay. It is measured by applicants past performance records and followed by physical observation. For this, an interview with applicant's customers/suppliers/ will further clarify the situation. Documents relating to this area were: Certified balance sheet and profit and loss account for at least past 3 years. References or other lenders with whom the applicant has dealt in the past or bank A/C.

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

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

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

### 2.2.4 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 scrutinize 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 which 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 can be 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 aforesaid principles, it may still no 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 exportoriented industries

### 2.2.5 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, these steps can be pointed out of 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)

### 2.2.6 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 answers the following questions:

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

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

### 2.3 Review of NRB Directives regarding Credit Management of Commercial Banks

Various rules, regulations, Acts and directives are reviewed while preparing the concept of this study. Different types of directives, which are issued for the commercial 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.

### 2.3.1 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 to discuss those rules and regulations which are 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. a 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. But 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:

### 2.3.2 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 also 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 lone 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<br>Nepal Oil Corporation<br>Agriculture Input Corporation<br>Nepal Food Corporation<br>\section*{Merchandise}<br>Petrol, Diesel, Kerosene, and LPG gas<br>Fertilizer, Seeds<br>Cereals

### 2.3.3 Directives Relating to Loan Classification and Loan Loss Provisioning

Banks should classify outstanding loans and advances on the basis of 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 3 (three) months shall be included in this category. These are classified and defined 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. And the term Loans and Advance also include Bills Purchased and Discounted.

## Loan Loss Provisioning

The Loan Loss Provisioning, on the basis of 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 2047.12.8 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 | $100 \%$ |

### 2.3.4 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.

On the basis of the risk-weighted assets, the banks should maintain the prescribed proportion of minimum capital funds as per the following time table:

| Year | Core capital | Capital fund |
| :--- | :---: | :---: |
| For FY 2064/65 | $5.5 \%$ | $11 \%$ |
| For FY 2065/66 | $6.0 \%$ | $10.0 \%$ |
| For FY 2066/67 | $6.0 \%$ | $10.0 \%$ |

### 2.3.5 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.

### 2.3.6 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 $5.5 \%$ of current and banks.

### 2.3.7 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.

### 2.3.8 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 Government of Nepal 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.

### 2.4 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

### 2.4.1 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.

### 2.4.2 Investment on Other Companies Shares and Debentures

Due to excess funds but least opportunity to invest those funds in much more profitable sector and also 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,

### 2.4.3 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.

### 2.4.4 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.

### 2.4.5 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 the investment policies which must be considered by the commercial banks have been given by many authors as:

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


### 2.5 Review of Articles and Journals

Commercial banks are financial institutions which make profit by lending the money that are collected in the form of deposits from their customers. That's why risk associated in lending policy of the banks is always critical. Banks can lose the confidence of the customers and can lead towards bankruptcy, if then don't have a sound credit policy.

Ashwini Kumar Thakur, (2059:49) raises the issue of Risk management in the banking sector. According to him, 'Risk should be taken as one of the challenges of the banking industry but it is not sufficient to minimize the potential disasters. Banking risk should be managed as a separate part of the management'.

Uma Karki (2059:87) In an article, Challenges of non-performing loan management in Nepal has mentions the causes of increasing trend of non- performing loan. She identifies the major causes such as "poor loan analysis, guarantee oriented loan system, and depreciation on valued assets, misuse of loan, lack of regular supervision of loan (Karki, 2059:87).

Madhav Lal Pradhan (2061:190) In an article, Importance of Credit Information Burro and its Activities is trying to identify the need of credit information burro. In
this article he is trying to dig out about the establishment of credit information burro and major activities, which are assured by the Nepal Rastra Bank Act 2058 section 58.

Pendleton (2061:1) In an article Nepal's Financial Reform: A Tardy Pace of Deliberate Race Bill Pendleton is trying to explore the need and relevancy of financial reform program in Nepal. In this article he suggest that "HMGN has way to go for complete financial reform, restore financial soundness to deserving public,, much work is left to do; however, the Government had set to "Road Map" to complete this phase and continues to improve the reform process, a process vision to sustain the economy for generations to come. The upcoming World Bank sponsored Phase II of the Financial Sector Reform Program will support this vision. It is important that the citizens of Nepal, particularly the media services, support this effort as well

An investment of money that is expected to generate additional money. Every investment entails some degree of risk; it requires a present certain sacrifice for a future uncertain benefit. This book describes various ways to select the investments that will provide the maximum future return at an acceptable level of risk. It examines such marketable financial instruments as common stocks, preferred stocks, bunds, put potions, and call options, combination options, and futures contracts on the traditional commodities, financial futures and other investments, as well as the risks associated with each. It analyses these assets, the markets in which they are traded, the laws governing the trading, the valuation of he assets, the construction if a diversified portfolio and other important investment management techniques.

### 2.6 Review of Related Research Studies and Thesis

In this section, effort has been made to examine and review of some related research papers. World Bank discussion papers, magazines, newspapers and other related publications.

Ganesh Bahadur Chand (2004) Credit Disbursement and Repayment of Agriculture Development Bank Nepal has following objectives, major findings \& recommendations:

## Objectives:

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


## findings:

- There is systematic relationship between credit disbursement and repayment. The
- Coefficient of correlation value as calculated is 0.94 which shows significance relationship.
- Repayment situation is satisfactory on production inputs and agro-based industry, warehouses and marketing percentage of repayment to due to the farm mechanization and Irrigation and tea horticulture and livestock, poultry and fisheries in much less satisfactory.


## Recommendation

For effective credit recovery from the borrowers or clients, Credit should be channeled through
the borrower groups.
Biraj Shrestha (2005) Effective Implementation of Credit Policy in Nepalese Commercial Banks has following objectives, major findings \& recommendations:

## Objectives:

- To study the relationship between deposits \& lending.
- To study the classification, provision for loan/advances \& its effect in profitability.
- To examine the sector wise and security wise lending
- To identify and analyze the problems and prospects of lending practice of Nepalese Commercial Banks


## 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

- Lending procedure should be short
- Need to invest in small entrepreneur's Development program
- Need to invest in productive areas that utilize natural resources
- Need to diversify lending in various sectors and explore un-banked sectors
- Target agriculture based sector for long term sustainability

Sijan Lal Shrestha (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.


## 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.

Amit Dhakal (2007) entitled with Soundness of Credit Policies in Nepalese Commercial Bank has following objectives, major findings \& recommendations:

## Objectives:

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

Commercial Banks

## 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

- Lending procedure should be short
- Need to invest in small entrepreneur's Development program and deprived sector
- Need to invest in productive areas that utilize natural resources
- Need to diversify lending in various sectors and explore un-banked sectors
- Target agriculture based sector for long term sustainability

Krishna Joshi (2008) Credit Management of Commercial Banks in Nepal has following objectives, major findings \& 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


## 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.

Manita Shrestha (2009) 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
- To provide suggestions \& recommendations about credit risk management


## 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.
- Name lending shall be stopped
- Credit officers must be competent enough to find out the all possible credit risks to minimize the possible loss.
- Banking services and lending shall be extended to rural areas and new untouched sectors as well.

Suraksha Nepal (2010) Credit Management of Commercial Banks in Nepal has following objectives, major findings \& recommendations:

## Objectives:

- To assess the credit practices 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 with loan \& advances, NPA and Net profit


## 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.

### 2.7 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. Similarly, this research had focused to give something new to the topic. Banks survive through collection of deposits and make lending to borrowers. Today non performing loan is becoming a great problem to all the commercial banks. All the commercial banks lends their deposits on different sectors of the economy. But all the sectors is not worsening in today's scenario. Even some sector are flourishing today. Market is never the same. The demand keeps on changing with the modernization and globalization. Even when some sectors are going bad some have high demand and the market. Bank can still lend without increasing their non performing asset if they focus on identifying the new market for lending and if they properly analyze the proper sector for lending. The study on the sector wise lending of commercial banks is limited. This thesis mostly focuses on identifying the proper sector to lend for the commercial banks. The loan performance of different sectors will be analyzed and studied in this thesis.

## CHAPTER - III

## Research Methodology

The topic of the problem has been selected as "Credit Management of Commercial Banks of Nepal". The sole objective of this study is to make the comparative analysis of credit in different sectors and to determine the outcome 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 the chapter aims to present and reflect the methods and techniques those are carried out and followed during the study period. The research methodology adopted for the present study is mentioned in this chapter which deals with research design, sources of data, data collection, processing and tabulation procedure and methodology.

Commercial Banks are the principal agents of the money market, which, in turn, is the major instrument of the financial system. Thus, commercial banks and their lending transaction obviously affect the national economy. Moreover, lending and borrowing transaction that takes place through the commercial banks influence the daily livings of each national. And 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 banks' financial management system can contribute the economic growth too because these banks are the major variable of financial market. In this way, the credit management commercial banks in different sectors and their outcome might be considered as a keen subject to study.

### 3.1 Research Design

The purposed study is carried out by collecting information regarding the borrowers, and the 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 abide the commercial banks. The study has adopted descriptive cum analytical research designs.

### 3.2 Nature and Sources of Data

Specifically, the nature of the data is about to be secondary, as the basic purpose of the study is to fulfill the requirement for the degree of M.B.S., T.U. However, primary
data has also been aimed to achieve to some extent through personal interviews. Taking consideration into the sources of data, the secondary sources of data are about to be bank publications, central bank's rules and regulations, etc.

### 3.3 Population and Sampling

During the past decade, central bank has licensed more than two dozen of commercial banks to get established. Some of them are as follows which are taken as the population for the study:

Out of these commercial banks, following three commercial banks have been selected as a sample for this study.

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

### 3.4 Data Collection Method

All sorts of data that are considered to be relevant 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.

### 3.5 Reliability of Data

There exists a kind of skepticism regarding the bank personnel's interviews as the study do not make them compelled to provide any sort of authentic data. However, 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.

### 3.6 Data Analysis Tools

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.

The tools applied are:

### 3.6.1 Financial Tools

Financial tools basically help analyze the financial strength and weakness of a firm. Ratio analysis is a part of the whole process of analysis of financial statements of any business or industrial concerned especially to take output and credit decisions. Ratio analysis is used to compare firm's financial performance and status that of the other firms or to it overtime. Even though there are many ratios 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.

### 3.6.2 Liquidity Ratios

This 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 met 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


### 3.6.3 Asset Management Ratios

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
- Nonperforming assets to total assets ratio


### 3.6.4 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


### 3.6.5 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 ratio have been studied.

* Sector Wise Lending


### 3.6.6 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


### 3.6.7 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.

### 3.6.8 Arithmetic Mean

Arithmetic mean of a given set of observation is their sum divided by the number of observation. In general $x_{1}, x_{2} \ldots \ldots x_{3}$ are the given number of observation, their arithmetic mean can be derived in this way.

$$
\frac{\Sigma X=\mathrm{XX} 2+\mathrm{X} 3+\ldots \ldots \ldots \ldots+\mathrm{Xn}}{\mathrm{~N}}
$$

Where,
$\mathrm{X}=$ variables
$\Sigma \mathrm{X}=$ Arithmetic mean
$\mathrm{N}=$ number of 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 also easy to calculate.

### 3.6.9 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. So, it is measured by following formula using two variables.

$$
\mathrm{r}=\frac{\Sigma \mathrm{XY}}{\sqrt{\Sigma \mathrm{X}^{2}} \sqrt{\Sigma \mathrm{Y}^{2}}}
$$

$\mathrm{r}=$ coefficient of correlation
$\Sigma \mathrm{XY}=$ Sum of product of deviation in two series.
$\Sigma X^{2}=$ Sum of squared deviation in $X$ series
$\Sigma Y^{2}=$ Sum of squared deviation 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.

### 3.6.10 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.

### 3.6.11 Trend Analysis

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, upward sloping of constant over the period.

### 3.6.12 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 $r$ be the calculated value of correlation a sample of n pair of observations. Then P E is defined by

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

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

## CHAPTER - IV

## Data Presentation and Analysis

This is the section where, the filtered data are presented and analyses. This is one of the major chapters of this study because it includes details of analysis and interpretation of data from which concrete result can be obtained. This chapter consists of various calculation made for the analysis of credits management of the sample banks. To make the study effective, precise and easily understandable, this chapter is categorized in three parts: presentation, analysis and interpretation. The analysis is fully based in secondary data. In presentation section, data are presented in terms of table and charts. The presented data are then analyzed by using different statistical tools mentioned in chapter three. At last the results of the analysis are interpreted. Though there are no distinct lines of demarcation for each section, primary data collected through various staffs are equally used.

### 4.1 Liquidity

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

Liquidity helps to reduce the liquidity risk which directly leads to bankruptcy. Liquidity is a bank's ability to generate cash quickly 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.

### 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\%. The liquidity of the bank is measured by Cash Reserve Ratio (CRR):

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

Table 4.1
Cash Reserve ratio of Nabil Bank
(in Million)

| Years | Cash \& Bank Balance | Deposits | CRR\% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 559.38 | 14586.61 | 3.83 |
| $2005 / 06$ | 630.24 | 19347.40 | 3.26 |
| $2006 / 07$ | 1399.83 | 23342.29 | 6.00 |
| $2007 / 08$ | 2671.14 | 31915.05 | 8.37 |
| $2008 / 09$ | 3372.51 | 37348.26 | 9.03 |
| Mean |  |  |  |

Source: Annual report
Table 4.exhibit the cash and Bank balance to the Total Deposits of Nabil Bank from fiscal year 2004/05 to 2008/09. In Fiscal year 2004/05 the ratio was $3.83 \%$ which is decrease in the year 2005/06 to $3.26 \%$, it increased in the year 2006/07 to $8 \%$ and in the year 2007/08.to $8.37 \%$ respectively. It reached $9.03 \%$ in year 2008/09.

The table shows that the Deposits are in increasing trend but the cash and bank balance has been decreased in fiscal year 2005/06 which cause the CRR ratio to fall in that year.

## Table 4.2

## Cash Reserve ratio of NIBL

(in Million)

| Years | Cash \& Bank Balance | Deposits | CRR\% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 1340.48 | 14254.57 | 9.40 |
| $2005 / 06$ | 2336.52 | 18927.31 | 12.34 |
| $2006 / 07$ | 2441.51 | 24488.86 | 9.97 |
| $2007 / 08$ | 3754.94 | 34451.73 | 10.90 |
| $2008 / 09$ | 7918.00 | 46698.10 | 16.96 |

Source: Annual Reports
Table 4.2 exhibits the cash and bank balance to total Deposits of Nepal Investment bank in fiscal years 2004/05 to 2008/09. The CRR ratio in fiscal year 2004/05 is $9.40 \%$ which is increasing trend and is $12.34 \%$ in 2005/06 and later decreased in fiscal year 2006/07 to $9.97 \%$ which again increased in year 2007/08 to $10.90 \%$. In fiscal year 2008/09/07the ratio has been drastically increased to $16.96 \%$

The table shows both the total deposits and the Cash and Bank balance are in increasing trend but the growth percent in the cash and bank balance in fiscal year 2006/07 is less than the Deposits which results the low CRR ratio in that year.

Table 4.3
Cash Reserve ratio of BOK
(in Million)

| Years | Cash \& Bank Balance | Deposits | CRR\% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 740.52 | 8942.75 | 8.28 |
| $2005 / 06$ | 728.70 | 10485.36 | 6.95 |
| $2006 / 07$ | 1315.90 | 12388.93 | 10.62 |
| $2007 / 08$ | 1440.47 | 15833.74 | 9.10 |
| $2008 / 09$ | 2182.11 | 18083.98 | 12.07 |
| Mean |  |  |  |
| $\mathbf{9 . 4 0}$ |  |  |  |

Source: Annual Reports
Table 4.3 exhibits the cash and Bank balance to the Total Deposits of Bank of Kathmandu from fiscal year 2004/05 to 2008/09. In Fiscal year 2004/05 the ratio was $8.28 \%$ which then lowers in the year 2005/06 to $6.95 \%$ and it again increased in year $2006 / 07 /$ and $2007 / 08$. To $10.62 \%$ and $9.10 \%$ respectively and reached 12.07 in year 2008/09.

### 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.

## Investment in Govt. Securities <br> Total Deposits

## Table 4.4

## Investment in Government securities to Total Deposits of Nabil Bank

(in million)

| Years | Inv.govt Securities | Deposits | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 2413.94 | 14586.61 | 16.55 |
| $2005 / 06$ | 2301.46 | 19347.40 | 11.90 |
| $2006 / 07$ | 4808.35 | 23342.29 | 20.60 |
| $2007 / 08$ | 4646.88 | 31915.05 | 14.56 |
| $2008 / 09$ | 3706.10 | 37348.26 | 9.92 |
|  |  | Mean | 14.71 |

Source: Annual Reports
Table 4.4 exhibits the investment in government securities to total deposits of Nabil bank from 2004/05 to 2008/09. It shows that the Bank has invested $16.55 \%$ of total deposit in government securities. which reaches the maximum in the year 2006/07 to $20.60 \%$ and then lowered to $9.92 \%$ in the year 2008.09.

Even the Total Deposits have been increased year by year, the investment in government securities have been in a flactuative trend. The investment is higher in the year 2006/07 with 4808.35 million which later lowers to Rs. 3706.10 million in the year 2008.09.

Table 4.5
Investment in Government securities to Total Deposits of NIBL Bank
(in million)

| Years | Inv.govt Securities | Deposits | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 1948.50 | 14254.57 | 13.67 |
| $2005 / 06$ | 2522.30 | 18927.31 | 13.33 |
| $2006 / 07$ | 3256.40 | 24488.86 | 13.30 |
| $2007 / 08$ | 3155.00 | 34451.73 | 9.16 |
| $2008 / 09$ | 2531.3 | 46698.10 | 5.42 |
| Standard Deviation |  |  |  |

Source: Annual Reports
Table 4.5 exhibits the Investment in government securities to Total Deposits of Nepal Investment Bank from year 2004/05 to 2008/09. Investment in government securities has been in increasing trend with the deposits till the year 2006/07 then after the investment in government securities has been decreased then after even though the deposits has been increased. Though the investment has been increased till year 2006/07 the ratio 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.

Table 4.6

## Investment in Government securities to Total Deposits of BOK

(in
Million)

| Years | Inv.govt Securities | Deposits | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 2146.62 | 8942.75 | 24.00 |
| $2005 / 06$ | 2658.37 | 10485.36 | 25.35 |
| $2006 / 07$ | 2332.04 | 12388.93 | 18.82 |
| $2007 / 08$ | 2113.22 | 15833.74 | 13.35 |
| $2008 / 09$ | 1744.98 | 18083.98 | 9.65 |
|  |  |  |  |

Source: Annual reports
Table 4.6 exhibits the investment in government securities to total deposits of Bank of Kathmandu. Investment in government securities has increased in the year 2005/06 which is in decreasing trend in later years even after the increment in the total deposits.

Investment in Government securities to Total Deposits was $24 \%$ on the year 2004/05 which increased to $25.35 \%$ on fiscal year 2005/06. The ratio has decreased then after to $9.65 \%$ in the year 2008/09. The decline in the investment even after the increasing trend in total deposits implies that the fund has been diverted in other sector.

### 4.2 Asset Management /Asset Quality

Asset quality refers to the degree of financial strength and risk in a bank's assets, typically loans and investments. A comprehensive evaluation of asset quality is one of the most important components in assessing the current condition and future viability 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 regard not only the asset but the type of asset of the company plays a pivotal 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.

In the case of banks the major asset categories assets of the banks are the cash and bank balance, money at call, investments and Loans and advances. But among the four asset types the bank stands to earn more if there is a more loan dispersion as the spread is higher. Investments also earn money for the bank but the rate is lower than that of loans as too is the case of bank balances.

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 Non performing assets of the bank we can get a glimpse 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
Advances to total deposits of Nabil Bank
(in million)

| Years | Loan and Adv. | Deposits | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 10586.17 | 14586.61 | 72.57 |
| $2005 / 06$ | 12922.54 | 19347.40 | 66.79 |
| $2006 / 07$ | 15545.78 | 23342.29 | 66.60 |
| $2007 / 08$ | 21365.05 | 31915.05 | 66.94 |
| $2008 / 09$ | 27589.93 | 37348.26 | 73.87 |

Source: Annual reports
Table 4.7 shows that relation between loan and advances to total deposits of Nabil Bank from year 2004/05 to 2008/09. Loan and advances to deposit in the year $2004 / 05$ has been $72.57 \%$ which later decreased to $66.79 \%$ in the year 2005/06. Loan and advance s has increased in the year 2005/06 but the growth rate is lower than the growth rate of total deposit resulting the decrease in the ratio. In year 2005/06 to 2007/08 the growth rate in the deposit and loan and advances are similar as the ratio for those year are nearly equal. In the year 2008/09 the ratio has increased to $73.87 \%$ indication the higher utilization of fund in the loan and advances. The average investment in loan and advances is $69.36 \%$ with the fluctuation of $3.56 \%$.

Table 4.8
Loan and advances to total deposits of NIBL
(in million)

| Years | Loan and Adv. | Deposits | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 10126.06 | 14254.57 | 71.04 |
| $2005 / 06$ | 12776.21 | 18927.31 | 67.50 |
| $2006 / 07$ | 17286.43 | 24488.86 | 70.59 |
| $2007 / 08$ | 26996.65 | 34451.73 | 78.36 |
| $2008 / 09$ | 36241.21 | 46698.10 | 77.61 |

Source: Annual reports
Table 4.8 shows the loan and advances to total deposit ratio of NIBL Bank from year 2004/05 to 2008/09. 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. The growth rate of loan and advances is lower in the year 2005/06 in comparison with the growth rate of the deposit of that year. In year 2006/07 the loan and advances has increased and reached $70.59 \%$ of total deposit and keep on increasing in later years to $78.36 \%$ and $77.61 \%$ respectively. The average loan and advances to total deposit remains $73.02 \%$ in these five years with the standard deviation of $4.74 \%$.

Table 4.9

## Loan and advances to total deposits of BOK

(in million)

| Years | Loan and Adv. | Deposits | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 5912.58 | 8942.75 | 66.12 |
| $2005 / 06$ | 7259.08 | 10485.36 | 69.23 |
| $2006 / 07$ | 9399.33 | 12388.93 | 75.87 |
| $2007 / 08$ | 12462.64 | 15833.74 | 78.71 |
| $2008 / 09$ | 14647.30 | 18083.98 | 81.00 |

Source: Annual report
Table 4.9 shows the loan and advances to total deposit of Bank of Kathmandu of years 2004/05 to 2008/09. Loan and advances has been increased with the increment in total deposit. The growth rate of loan and advances has been higher then the growth rate of deposit which leads to the increment in the ratio from $66.12 \%$ in the year $2004 / 05$ to $81.00 \%$ in 2008/09. The average loan and advances remain $74.18 \%$ in these five years with the standard deviation of $6.31 \%$.

### 4.2.2 Non-performing Assets to Performing Assets.

Non-performing assets to Performing assets gives us an idea of the organization's asset quality. It tells us the portfolio of the good assets and the bad assets of the total assets. Higher the performing assets, reduces the credit risk and positively affect in the profit and vice versa.

Table 4. 10

## Non-Performing Assets to Performing Assets of Nabil Bank

(in million)

| Years | Non-Performing Assets | Performing Assets | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 144.51 | 10802.23 | 1.34 |
| $2005 / 06$ | 182.62 | 13096.16 | 1.39 |
| $2006 / 07$ | 178.29 | 15724.73 | 1.13 |
| $2007 / 08$ | 224.82 | 21598.37 | 0.75 |
| $2008 / 09$ |  |  | 0.81 |
|  |  | Standard Deviation | $\mathbf{0 . 3 0}$ |

Source: Annual Reports
Table 4.10 shows that ratio of non-performing assets to performing assets of the Nabil bank over five years period from 2004 /05 to 2008/09. Performing assets of Nabil Bank is in increasing ratio where as the non performing asset is high in the year 2005/06 and 2008/09 with Rs. 182.62 and Rs. 224.82 million respectively. The ratio is highest in the year 2005/06 with $1.39 \%$ and its $0.81 \%$ in the year 2008/09 even when the non-performing asset is high which is due to higher growth rate in the performance assets.

The average ratio is $1.08 \%$ and the standard deviation is $0.30 \%$ with not much fluctuation in the ratio.

Table 4. 11

## Non-Performing Assets to Performing Assets of NIBL

(in million)

| Years | Non-Performing Asset | Performing Asset | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 280.87 | 10172.30 | 2.76 |
| $2005 / 06$ | 272.49 | 12905.66 | 2.11 |
| $2006 / 07$ | 421.97 | 17347.13 | 2.43 |
| $2007 / 08$ | 309.47 | 27219.83 | 1.14 |
| $2008 / 09$ | 213.91 | 36613.25 | 0.58 |
|  |  | Mean | $\mathbf{1 . 8 1}$ |

Source: Annual Report
Table 4.11 exhibits the non performing asset to performing asset of NIBL Bank from year 2004/05 to 2008/09. Performing asset is growing every year from 10172.30 million in year 2004/05 to 36613.25 million in the year 2008/09 whereas the nonperforming asset is higher in the year 2006/07 with 421.97 which later decreases to 309.47 and 213.91 in the year 2007/08 and 2008/09 respectively.

The ratio is highest in the year 2004/05 with $2.76 \%$ and the minimum in the year 2008/09 with $0.58 \%$. NIBL has managed to reduce their non performing assets to performing assets ratio with the highly increment in the performing side every year. Which shows the positive sign in managing the default risk,

Table 4. 12
Non-Performing Assets to Performing Assets of BOK
(in million)

| Years | Non-Performing loans | Performing loans | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 308.51 | 5873.54 | 5.25 |
| $2005 / 06$ | 203.62 | 7285.08 | 2.80 |
| $2006 / 07$ | 243.30 | 9450.81 | 2.57 |
| $2007 / 08$ | 236.90 | 12510.82 | 1.89 |
| $2008 / 09$ | 190.32 | 14755.40 | 1.29 |
|  |  | $\mathbf{S t a n d a r d} \mathbf{~ D e v i a t i o n ~}$ | $\mathbf{1 . 5 1}$ |

Source:Annual Reports
Table 4.12 exhibits the non performing assets to performing assets of BOK from year 2004/05 to 2008/09. Performing assets of BOK is has grown from Rs. 5873.54 million in the year 2004/05 to Rs. 14755.40 million in the year 2008/09. In case of Non performing assets has decreased from Rs. 308.51 million in the year 2004/05 to 190.32 million in year 2008/09 which shows the progress in the bank ,s performance in the five year trend. With the increase in lending the bank has been able to minimize the non performing assets.

The mean ratio of the non performing assets to Performing assets is $2.76 \%$ with the standard deviation of $1.51 \%$.

### 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. 13

## Non-performing Assets to Total assets of Nabil Bank.

(in million)

| Years | Non-Performing Asset | Total Asset | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 144.51 | 17186.33 | 0.84 |
| $2005 / 06$ | 182.62 | 22329.97 | 0.82 |
| $2006 / 07$ | 178.29 | 27253.39 | 0.65 |
| $2007 / 08$ | 161.09 | 37132.76 | 0.43 |
| $2008 / 09$ | 224.82 | 43867.40 | 0.51 |
| Standard Deviation |  |  |  | 00.18

Source : Annual Reports
Table 4.13 exhibits the non-performing assets to total assets of Nabil Bank Ltd. from year 2004/05 to 2008/09. The trend shows the increase in the non performing assets in the year 205/06 which later decreased in the year 2006/07 and 2007/08 and again increased in the year 2008/09. In the Total assets side, there is increment in every year. The ratio of nonperforming assets to total assets has been decreased in every year except the small increment in the year 2008/09.

The growth rate of the total assets side is higher than the growth rate of the non performing assets which is why the ratio has been decreased every year.

The average non-performing assets to total assets is $0.65 \%$ with the standard deviation of $0.18 \%$.

Table 4. 14
Non-performing Assets to Total assets of NIBL.
(in million)

| Years | Non-Performing Asset | Total Asset | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 280.87 | 16274.06 | 1.73 |
| $2005 / 06$ | 272.49 | 21330.14 | 1.28 |
| $2006 / 07$ | 421.97 | 27590.84 | 1.53 |
| $2007 / 08$ | 309.47 | 38873.31 | 0.80 |
| $2008 / 09$ | 213.91 | 53010.80 | 0.40 |
| Standard Deviation $\mathbf{0 . 5 4}$ |  |  |  |

Source: Annual Reports
Table 4.14 exhibits the none performing assets to total assets of NIBL from year 2004/05 to 2008/09 .Non performing asset of NIBL is 208.87 in the year 2004/05 which has increased to Rs. 421.97 in the year 206/07 then again the bank has managed to decrease the non performing assets to 213.91 in the year 2008/09. In the total assets side, there is an increment in every year.

The ratio of nonperforming assets to total assets is $1.73 \%$ in the year 2004/05 which has increased to $1.53 \%$ in the year 20006/07 due to higher increment in the non performing assets. And the ratio has reduced the following years and reached $0.40 \%$ in the year 2008/09.

The mean ratio of non-performing assets to total assets is $1.15 \%$ and the standard deviation is $0.54 \%$.

Table 4.15
Non-performing Assets to Total assets of BOK.
(in million)

| Years | Non-Performing Asset | Total Asset | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 308.51 | 9857.13 | 3.13 |
| $2005 / 06$ | 203.62 | 12278.33 | 1.66 |
| $2006 / 07$ | 243.30 | 14570.10 | 1.67 |
| $2007 / 08$ | 236.90 | 190.32 | 20496.01 |
| $2008 / 09$ |  | 0.93 |  |
| Standard Deviation |  |  |  |

Source: Annual Reports
Table 4.15 exhibits the non-performing assets to total assets of BOK from year 2004/05 to 2008/09. The non-performing assets of BOK has decreased in the year 2005/06 to Rs. 203.62 million from Rs. 308.51 million of previous year. In the year 2006/07 id increased to Rs. 243.30 million which has decreased in the following years and reached Rs. 190.32 million in the year 2008/09. In the assets side the is a continuous increment every year.

The ratio, non performing assets to total assets in the year 2004/05 is 3.13 which the bank managed to decrease to 0.93 in the five years by decreasing the non performing side and increasing total assets. The average ratio is $1.74 \%$ with the standard deviation of $0.83 \%$

### 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 4.16
Non-performing assets to total Loan of Nabil Bank
(in million)

| Years | Non-Performing Asset | Total Loan and Adv. | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 144.51 | 10586.17 | 1.37 |
| $2005 / 06$ | 182.62 | 12922.54 | 1.41 |
| $2006 / 07$ | 178.29 | 15545.78 | 1.15 |
| $2007 / 08$ | 161.09 | 21365.05 | 0.75 |
| $2008 / 09$ | 224.82 |  | 0.81 |

Source: Annual Reports
Table 4.16 exhibits the non-performing assets to total assets of Nabil Bank from year 2004/05 to 2008/09. The non-performing assets of the Nabil bank has increased in the year 2005/06 to Rs. 182.62 million from Rs. 144.51 million of previous year. The same has decreased in the following years but has increased to Rs. 224.82 million in the year 2008/09. Total loan and advances has increased continuously increased every year and reached to Rs. 27589.93 million in the year 2008/09 from Rs.10586.17 million in year 2004/05.

The ratio, non performing assets to total loan and advances in the year 2004/05 is $1.37 \%$ which later increased to $1.41 \%$ in the year 2005/06 then after the ratio decreased and reached $0.81 \%$ in the year 2008/09.the average ratio is $1.10 \%$ with the standard deviation of $0.30 \%$.

Table 4. 17
Non-performing assets to total Loan of NIBL.
(in million )

| Years | Non-Performing Asset | Total Loan and Adv. | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 280.87 | 10126.06 | 2.77 |
| $2005 / 06$ | 272.49 | 12776.21 | 2.13 |
| $2006 / 07$ | 421.97 | 17286.43 | 2.44 |
| $2007 / 08$ | 309.47 | 26996.65 | 1.15 |
| $2008 / 09$ | 213.91 | 36241.21 | 0.59 |
|  |  | Standard Deviation | 0.92 |

Source: Annual Report
Table 4.17 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 2004/05 is Rs. 280.87 million which reach highest in the year 2006/07 with Rs. 421.97 million and later decreased to Rs. 213.91 million in the year 2008/09. The loan and advances has been in increasing trend in all five years.

The ratio non-performing assets to total loan and advances is $2.77 \%$ in the year 2004/05 which the bank has managed to reduce to $0.59 \%$ by the year 2008/09. The mean ratio of the five years is $1.82 \%$ with the standard deviation of $0.92 \%$

Table 4. 18
Non-performing assets to total Loan of BOK.
(in million)

| Years | Non-Performing Asset | Total Loan and Adv. | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 308.51 | 5912.58 | 5.22 |
| $2005 / 06$ | 203.62 | 7259.08 | 2.81 |
| $2006 / 07$ | 243.30 | 9399.33 | 2.59 |
| $2007 / 08$ | 236.90 | 12462.64 | 1.90 |
| $2008 / 09$ | 190.32 | 14647.30 | 1.30 |
|  |  | Standard Deviation | 1.50 |

Source: Annual Reports
Table 4.18 exhibits the Non-performing assets to total loan and advances of BOK from the year 2004/05 to 2008/09. The non-performing loan in the year 2004/05 is Rs. 308.51 million which has been decreased in the year 2005/06 to Rs. 203.62 million. In the year 2006/07 it increased to Rs. 243.30 million and later on decreased and reached Rs. 190.32 million in the year 2008/09. Total loan and advances of the BOK has been in increasing trend every year.

The ratio of non-performing loan to total loan is $5.22 \%$ in the year 2004/05 which is a bit high but the bank has managed to decrease on the following years and reached $1.30 \%$ by the year 2008/09 which shows the quality performance of the bank. The mean ratio of non performance assets to total loan and advances is $2.76 \%$ with the standard deviation of $1.50 \%$.

### 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 none performing assets in the bank.

Table 4. 19
Loan loss provision to total loan and advances of Nabil bank.
(in million)

| Years | Loan loss Provision | Total Loan and Adv. | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 360.57 | 10586.17 | 3.41 |
| $2005 / 06$ | 356.24 | 12922.54 | 2.76 |
| $2006 / 07$ | 357.25 | 15545.78 | 2.30 |
| $2007 / 08$ | 394.41 | 21365.05 | 1.85 |
| $2008 / 09$ | 409.78 | 27589.93 | 1.49 |
|  |  | Mean | 2.36 |

## Source: Annual Reports

Table 4.19 exhibits the loan loss provision to total loan and advances of Nabil Bank from year 2004/05 to 2008/09. The Loan loss provision has been in decreasing trend from year 2004/05 to 2005/06 from Rs. 360.57 million to 3.56 .24 then the same has increased in the year 2006/07 to Rs. 357.25 million and reached Rs. 409.78 million in the year 2008/09. Total loan and advances trend shows the continuous increment every year.

The ratio is high in the year 2004/05 with $3.41 \%$ which the manages to control and decrease every year and by the year of 2008/09 the ratio decreased to $1.49 \%$ which shows the bank good performance in managing the lower provision. The average ratio of the five years remains $2.36 \%$ with the standard deviation of $0.76 \%$.

Table 4. 20
Loan loss provision to total loan and advances of NIBL.
(in million)

| Years | Loan loss Provision | Total Loan and Adv. | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 327.11 | 10126.06 | 3.23 |
| $2005 / 06$ | 401.94 | 12776.21 | 3.15 |
| $2006 / 07$ | 482.67 | 17286.43 | 2.79 |
| $2007 / 08$ | 532.65 | 26996.65 | 1.97 |
| $2008 / 09$ | 585.95 | 36241.21 | 1.62 |
| Mean |  |  |  |

Source: Annual reports.
Table 4.20 exhibits the loan loss provision to total loan and advances of NIBL form year 2004/05 to 2008/09. The Loan loss provision of the NIBL is in increasing trend every year and reaches Rs. 585.95 million in year 2008/09 from Rs. 327.11 million in the year 2004/05. 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 2004/05 with $3.23 \%$ which is in decreasing trend and reaches $1.62 \%$ in the year 2008/09. The mean ratio is $2.55 \%$ with the standard deviation of $0.72 \%$.

Table 4. 21
Loan loss provision to total loan and advances of BOK
(in million)

| Years | Loan loss Provision | Total Loan and Adv. | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 269.47 | 5912.58 | 4.56 |
| $2005 / 06$ | 229.62 | 7259.08 | 3.16 |
| $2006 / 07$ | 294.77 | 9399.33 | 3.14 |
| $2007 / 08$ | 285.08 | 12462.64 | 2.29 |
| $2008 / 09$ | 298.42 | 14647.30 | 2.04 |
| Mean |  |  |  |

Source: Annual Reports
Table 4.21 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 2005/06 and 2007/08 and increased in the year 2006/07 and 2008/09. In other side the loan and advances are in increasing trend.

The ratio is highest in year 2004/05 with $4.56 \%$ which is in decreasing trend and reaches $2.04 \%$ by the year 2008/09 which is due to higher growth in the total loan and advances side then in provision side. The mean is $3.04 \%$ with the standard deviation of $0.99 \%$.

### 4.3.3 Provision for pass loan to total pass loan

Table 4. 22
Provision for pass loan to total pass loan of Nabil Bank.
(in million)

| Years | Provision for Pass Loan | Total Pass Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 235.34 | 10802.23 | 2.18 |
| $2005 / 06$ | 130.34 | 13010.86 | 1.00 |
| $2006 / 07$ | 175.50 | 15638.48 | 1.12 |
| $2007 / 08$ | 291.71 | 21587.74 | 1.35 |
| $2008 / 09$ | 280.44 | 27767.00 | 1.01 |
|  |  | Mean | 1.33 |

Source: Annual Report
Table 4.22 shows that provision for pass loan to total pass loan of Nabil Bank for five years period. The total pass loan of Nabil Bank is in increasing in trend where as the provision is in up and down order. the ratio is highest in the year 2004/05 with $2.18 \%$ and the mean is $1.33 \%$ with the standard deviation of $0.49 \%$.

As per NRB directives, the provision for the pass loan should be $1 \%$ which the Nabil bank has maintained in every year.

Table 4. 23
Provision for pass loan to total pass loan of NIBL.
(in million)

| Years | Provision for Pass Loan | Total Pass Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 101.06 | 10172.29 | 0.99 |
| $2005 / 06$ | 128.76 | 12869.28 | 1.00 |
| $2006 / 07$ | 173.50 | 17309.51 | 1.00 |
| $2007 / 08$ | 274.45 | 27176.97 | 1.01 |
| $2008 / 09$ | 381.20 | 36576.26 | 1.04 |
|  |  | Standard Deviation | 0.02 |

Source: Annual reports
Table 4.23 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 $0.99 \%$ in the year 204/05 which is slightly less than the standard of $1 \%$ directed by NRB. They are able to maintain the ratio all other years.

The average ratio is $1.01 \%$ with the standard deviation of $0.02 \%$.

Table 4. 24
Provision for pass loan to total pass loan of BOK
(in million)

| Years | Provision for Pass Loan | Total Pass Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 56.71 | 5723.97 | 0.99 |
| $2005 / 06$ | 70.83 | 7123.20 | 0.99 |
| $2006 / 07$ | 93.16 | 9346.81 | 1.00 |
| $2007 / 08$ | 124.04 | 12435.22 | 1.00 |
| $2008 / 09$ | 147.20 | 14746.83 | 1.00 |
|  |  | Standard Deviation | 0.00 |

Source: Annual reports
Table 4.24 exhibits the provision of pass loan to total pass loan of BOK from year 2004/05 to 2008/09. The provision is increasing every year with the increase in the total pass loan. The ratio is $0.99 \%$ for the initial two years which 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.

### 4.3.4 Provision for sub standard loan to total sub standard loan

Table 4.25
Provision for sub standard loan to total sub standard loan of Nabil Bank (in million)

| Years | Prov. for Sub-standard | Loan Sub-Standard Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 6.87 | 22.07 | 31.13 |
| $2005 / 06$ | 42.57 | 62.67 | 67.93 |
| $2006 / 07$ | 56.64 | 119.70 | 47.32 |
| $2007 / 08$ | 32.30 | 66.22 | 48.78 |
| $2008 / 09$ | 44.07 | 113.31 | 38.89 |
|  |  |  | 46.81 |

Source: Annual reports
Table 4.25 exhibits the provision for sub standard loan to total sub standard loan of Nabil Bank. The sub standard loan of Nabil bank has increased highly in following years in comparison to the year 2004/05. Likewise the provision has also been increased. The ratio has been above the standard as directed by NRB of $25 \%$. The mean ratio for the five years remain $46.81 \%$ with the high deviation of $13.77 \%$.

Table 4. 26
Provision for sub standard loan to total sub standard loan of NIBL.
(in million)

| Years | Prov. for Sub-standard | Loan Sub-Standard Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 0.21 | 0.82 | 25.61 |
| $2005 / 06$ | 11.06 | 44.24 | 25.00 |
| $2006 / 07$ | 24.57 | 96.89 | 25.36 |
| $2007 / 08$ | 10.40 | 61.74 | 16.84 |
| $2008 / 09$ | 2.69 | 10.77 | 24.98 |
|  |  |  | 23.56 |

Source: Annual Reports
Table 4.26 exhibits the provision for sub standard loan to total sub standard loan of NIBL. The sub standard loan of NIBL is Rs. 0.82 million in the year 2004/05 which later on increased to Rs. 96.89 million by the year 2006/07 and again it decreased to Rs.10.77 million by the year 2008./09. The provision has increased in the year 2005/06 and 206/07.

The ratio has been meet up to the standard of $25 \%$ only in the year 2004/05 to 2006/07 then the bank failed to meet in the year 2007/08 and 2008/09. The ratio is only $16.84 \%$ in the year 2007/08 which is very low with the standard of $25 \%$.

The mean ratio is $23.56 \%$ below the standard with the deviation of $3.76 \%$.

Table 4. 27

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

(in million)

| Years | Prov. for Sub-standard | Loan Sub-Standard Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 22.09 | 88.42 | 24.98 |
| $2005 / 06$ | 17.90 | 71.61 | 25.00 |
| $2006 / 07$ | 10.00 | 39.86 | 25.09 |
| $2007 / 08$ | 25.04 | 100.18 | 25.00 |
| $2008 / 09$ | 9.23 | 36.91 | 25.01 |
|  |  |  | 25.01 |

Source: Annual reports
Table 4.27 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 except there in increment in the year 2007/08. Likewise the provision has also been reduce except in the year 2007/08. The ratio is $24.98 \%$ which is slightly lower than the standard of $25 \%$ in the year 2004/05 then after the bank has meet the standard in every following years. The mean ratio is $25.01 \%$ with the minimum deviation of $0.04 \%$.

### 4.3.5 Provision for doubtful loan to total doubtful loan.

Table 4.28

## Provision for doubtful loan to total doubtful loan of Nabil Bank.

(in million)

| Years | Prov. for Doubtful Loan | Doubtful Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 1.40 | 1.93 | 72.54 |
| $2005 / 06$ | 13.90 | 29.57 | 47.01 |
| $2006 / 07$ | 7.12 | 14.47 | 49.21 |
| $2007 / 08$ | 21.27 | 42.58 | 49.95 |
| $2008 / 09$ | 23.53 | 45.76 | 51.42 |
|  |  |  | Mean |

## Source: Annual reports

Table 4.28 exhibits provision for doubtful loan to total doubtful loan of Nabil bank from 2004/05 to 2008/09. Total doubtful loan of Nabil bank has increased in the five year period from Rs. 1.93 million in year 2004/05 to Rs. 45.76 million in the year 2008/09. Likewise the provision has also increased from Rs. 1.40 million in year 2004/05 to Rs. 23.53 million in the year 2008/09. The ratio is higher in the year 2004/05 with $72.54 \%$ higher above the standard of $50 \%$ as directed by NRB. In the fiscal year 2005/06 to 2007/08 the bank has failed to meet the standard of $50 \%$ and met the standard in the year 2008/09. The mean ratio is $54.02 \%$ with the deviation of 10.47\%.

Table 4. 29
Provision for doubtful loan to total doubtful loan of NIBL
(in million)

| Years | Prov. for Doubtful Loan | Doubtful Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 37.56 | 74.94 | 50.12 |
| $2005 / 06$ | 0.25 | 0.50 | 50.00 |
| $2006 / 07$ | 43.08 | 86.05 | 50.06 |
| $2007 / 08$ | 10.40 | 20.72 | 50.19 |
| $2008 / 09$ | 5.74 | 11.49 | 49.96 |
|  |  |  | Mean |

## Source: Annual report

Table 4.29 shows that the provision for doubtful loan to total doubtful loan of NIBL. The doubtful loan is highest in the year 2006/07 with Rs. 86.05 million which has reduced I later years and reached Rs. 11.49 million in year 2008/09. The provision also moved in the same trend with highest in the year 2006/07 with Rs. 43.08 million which decreased to Rs. 5.74 million in the year 2008/09. NIBL has meet the standard of $50 \%$ in initial four years but has failed to meet the standard in the year 2008/09 with only $49.96 \%$. The average ratio is 50.07 with the deviation of $0.09 \%$.

Table 4. 30
Provision for doubtful loan to total doubtful loan of BOK
(in million)

| Years | Prov. for Doubtful Loan | Doubtful Loan | Ratio \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 42.12 | 89.81 | 46.90 |  |  |
| $2005 / 06$ | 4.40 | 8.80 | 50.00 |  |  |
| $2006 / 07$ | 18.29 | 36.58 | 50.00 |  |  |
| $2007 / 08$ | 9.62 | 19.25 | 49.97 |  |  |
| $2008 / 09$ | 10.54 | 21.09 | 49.98 |  |  |
| Standard Deviation |  |  |  |  | 1.38 |

## Source: Annual reports

Table 4.30 shows the provision of doubtful loan to total doubtful loan of BOK of five years period. The doubtful loan is highest in the year 2004/05with Rs. 89.81 million which decreased in the year 2005/06 but the same has increased again in the year 2006/07 and later on decreased to Rs. 21.09 million in the year 2008/09. The Provision for doubtful loan has also moves in the same manner with highest in year 2004/05 with Rs. 42.12 million and reduced to Rs. 10.54 million in year 2008/09. BOK has failed to meet the standard of $50 \%$ in the year 2004/05, 2007/08 and 2008/09. and only met in year 2005/06 and 2006/07. The average ratio is $49.37 \%$ which is below the standard with the deviation of $1.38 \%$.

### 4.3.6 Provision for bad loan to total bad loan.

Table 4. 31
Provision for bad loan to total bad loan of Nabil bank
(in million)

| Years | Prov. for Bad Loan | Bad Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 116.94 | 120.50 | 97.05 |
| $2005 / 06$ | 85.47 | 90.39 | 94.56 |
| $2006 / 07$ | 38.15 | 44.12 | 86.47 |
| $2007 / 08$ | 46.10 | 52.29 | 88.16 |
| $2008 / 09$ | 59.84 | 65.76 | 91.00 |

## Source: Annual report

Table 4.31 exhibits provision for bad loan to total bad loan of Nabil bank. The bad loan us highest in the year 2004/05 with Rs. 120.50 million which the bank has managed to reduce to Rs. 65.76 million in the year 2008/09. The ratio is also highest in the year 2004/05 but the Nabil bank has failed to meet the standard of $100 \%$ provisioning for bad loan as per direction of NRB. The mean ratio is $914.45 \%$ with the standard of $4.38 \%$.

Table 4. 32
Provision for bad loan to total bad loan of NIBL.
(in million)

| Years | Prov. for Bad Loan | Bad Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 188.28 | 205.11 | 91.79 |
| $2005 / 06$ | 225.49 | 227.76 | 99.00 |
| $2006 / 07$ | 236.82 | 239.03 | 99.08 |
| $2007 / 08$ | 191.66 | 227.01 | 191.66 |
| $2008 / 09$ |  | 100.00 |  |

## Source: Annual reports

The table 4.32 exhibits the provision for bad loan to total bad loan. Total bad loan of NIBl is in increasing trend till year 2006/07 with the highest of Rs. 239.03 million and the same has decreased to Rs. 191.66 in the year 2008/09. NIB1 has failed to meet the standard of $100 \%$ as per directive of NRB in initial three years and only managed to meet the standard in the year 2007/08 and 2008/09. The average ratio is $97.97 \%$ below the standard with the deviation of $3.49 \%$.

Table 4. 33
Provision for bad loan to total bad loan of BOK.
(in million)

| Years | Prov. for Bad Loan | Bad Loan | Ratio \% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 129.85 | 130.28 | 99.67 |
| $2005 / 06$ | 116.24 | 123.21 | 94.34 |
| $2006 / 07$ | 160.36 | 166.86 | 96.10 |
| $2007 / 08$ | 130.39 | 117.48 | 99.53 |
| $2008 / 09$ |  | 132.32 | 98.54 |

## Source: Annual reports

Table 4.33 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 97.64 below the standard with the deviation of $2.33 \%$.

### 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 current status of that sector bank can make decision whether to lend more or stop for that particular sector. The percentage calculated below are the average of the four years data from 2004/05 to 2007/08. Due to unavailability of data of 2008/09 only fours years average has been taken for analysis.

Table 4.34

## Loan and advances portfolio of Nabil bank.

| Sector | Percentage |
| :--- | :---: |
| Agriculture | 0.44 |
| Mining | 0.13 |
| Production | 35.24 |
| Construction | 11.23 |
| Metal Production, machinery | 1.03 |
| Transportation equipment production | 9.00 |
| Transportation | 5.92 |
| Wholesaler\& Retailer | 16.31 |
| Finance, Insurance | 4.67 |
| Service Industries | 8.42 |
| Consumable Loan | 0.59 |
| Local Government | 0.00 |
| Others | 100.00 |
| Total |  |

Source: NRB report

Figure 4.1

## Bank Sector wise lending of Nabil



Table 4.34 and Figure 4.1 shows the average sector wise lending of the Nabil of years 2005 to 2008. The Bank has lend mostly in the production sector with $35 \%$ followed by Wholesale and retailer and construction. Nabil bank has granted small percentage of loan in agriculture and metal production sector. The loan and advances in service industries is $8 \%$. There is no lending in the local government sector.

Table 4. 35
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 4.2

## Sector wise lending of NIBL.



Table 4.35 and Figure 4.2 shows the average proportion of loan and advances in different sectors of NIBL of year 2005 to 2008. NIB1 has highest proportion of loan and advances in the production sector with $34 \%$. Followed by other sectors $18 \%$ and wholesaler and retailer $18 \%$. NIBL has lend $12 \%$ of its total loan in services sector with $4 \%$ in construction and very minimum in agriculture and mine industries. There is no lending in local government.

Table 4. 36
Loan and advances portfolio of BOK.

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

Source: NRB reports

Figure 4.3

## Sector wise lending of BOK



Table 4.36 and figure 4.3 show the average sector wise lending of BOK over four years period from 2005 to 2008. BOK has lend $28.49 \%$ of its loan in production sector followed by $19 \%$ in wholesaler and retailer and $12 \%$ 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.

### 4.5 Analysis of coefficient of correlation

### 4.5.1 Correlation between Total deposit and loan and advances

Table 4. 37
Correlation between Total deposit and loan and advances of Nabil bank
(in million)

| Years | Total Deposit | Loan and Advances |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 14586.61 | 10586.17 |  |  |
| $2005 / 06$ | 19347.40 | 12922.54 |  |  |
| $2006 / 07$ | 23342.29 | 15545.78 |  |  |
| $2007 / 08$ | 31915.05 | 21365.05 |  |  |
| $2008 / 09$ | 37348.26 | 27589.93 |  |  |
| Correlation (r) |  |  |  | 0.9987 |
|  | P.E | 0.000729 |  |  |

Source: Annual reports
Refer Appendix for calculations.
Table 4.37 depicts the coefficient correlation and probable error of Total deposits and total loan and advances of Nabil bank. The correlation coefficient and the probable error remain to be 0.9987 and 0.000729 respectively. Correlation coefficient is higher than six times of probable error i.e. $0.9987>6 * 0.000729$ which means the loan and advances are highly correlated with the deposits. Increase in deposits tends to increase in the total loan and advances.

Table 4. 38
Correlation between Total deposit and loan and advances of NIBL.
(in million)

| Years | Total Deposit | Loan and Advances |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 14254.57 | 10126.06 |  |  |
| $2005 / 06$ | 18927.31 | 12776.21 |  |  |
| $2006 / 07$ | 24488.86 | 17286.43 |  |  |
| $2007 / 08$ | 34451.73 | 26996.65 |  |  |
| $2008 / 09$ | 46698.10 | 36241.21 |  |  |
| Correlation (r) |  |  |  | 0.9980 |
|  | 0.0017 |  |  |  |

Source: Annual reports Refer Appendix for calculations.
Table 4.38 depicts the coefficient correlation between total deposits and loan and advances. The correlation and probable error is 0.9980and 0.0017 respectively and correlation coefficient is greater than six times of probable error i.e. 09980>6*0.0017 which means total deposits and loan and advances of NIBL are highly positively correlated. The increase in the deposits also increase the loan and advances.

Table 4. 39

## Correlation between Total deposit and loan and advances of BOK.

(in million)

| Years | Total Deposit | Loan and Advances |
| :---: | :---: | :---: |
| $2004 / 05$ | 8942.75 | 5912.58 |
| $2005 / 06$ | 10485.36 | 7259.08 |
| $2006 / 07$ | 12388.93 | 9399.33 |
| $2007 / 08$ | 15833.74 | 12462.64 |
| $2008 / 09$ | 18083.98 | 14647.30 |

Table 4.39 depicts the correlation coefficient of total deposits and loan and advances of BOK. The correlation coefficient and probable error of BOK is 0.9995 and 0.0005 respectively and correlation is greater than six times of probable error i.e. $0.9995>6 * 0.0005$ which means loan and advances are highly positively correlated with total deposits. Increase in total deposits also increases the loan and advances.

### 4.5.2 Correlation between loan and advances and net profits

Table 4.40

## Correlation between loan and advances and net profits of Nabil Bank

(in million)

| Years | Loan and Advances | Net Profit |
| :---: | :---: | :---: |
| $2004 / 05$ | 10586.17 | 518.64 |
| $2005 / 06$ | 12922.54 | 635.26 |
| $2006 / 07$ | 15545.78 | 673.96 |
| $2007 / 08$ | 21365.05 | 746.47 |
| $2008 / 09$ | 27589.93 | 1031.05 |
|  | Correlation (r) | 0.9679 |
| P.E | 0.0283 |  |

Source: Annual reports Refer Appendix for calculations.
Table 4.40 depicts the correlation coefficient and probable error between loan and advances and net profit of Nabil bank. The coefficient correlation nd probable are 0.9679 and 0.0283 respectively and correlation is higher than six times the probable error i.e. $09679>6 * 0.0283$ which means loan and advances and net profits are highly positively correlated. Net profits have grown with the grown in the loan and advances side of Nabil bank.

Table 4. 41

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

(in million)

| Years | Loan and Advances | Net Profit |
| :---: | :---: | :---: |
| $2004 / 05$ | 10126.06 | 232.15 |
| $2005 / 06$ | 12776.21 | 350.54 |
| $2006 / 07$ | 17286.43 | 501.40 |
| $2007 / 08$ | 26996.65 | 696.73 |
| $2008 / 09$ | 36241.21 | 900.62 |
|  | Correlation (r) | 0.9916 |
|  | P.E | 0.0075 |

Source: Annual reports Refer Appendix for calculations.

Table 4.41 depicts the correlation coefficient and probable between loan and advances to net profits of NIBL. Correlation coefficient and the probable is 0.9916 and 0.0075 respectively and the correlation coefficient is higher than six times the probable error i.e. $0.9916>6 * 0.0075$ 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.

Table 4. 42
Correlation between loan and advances and net profits of BOK.
(in million)

| Years | Loan and Advances | Net Profit |
| :---: | :---: | :---: |
| $2004 / 05$ | 5912.58 | 139.53 |
| $2005 / 06$ | 7259.08 | 202.44 |
| $2006 / 07$ | 9399.33 | 262.38 |
| $2007 / 08$ | 12462.64 | 361.50 |
| $2008 / 09$ | 14647.30 | 461.73 |
| Correlation (r) |  | 0.9967 |
| P.E |  | 0.0030 |

Source: Annual reports Refer Appendix for calculations.
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 0.9967 and 0.0030 respectively and the correlation is higher than six times the probable error. i.e. $0.9967>6 * 0.0030$ 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.

### 4.6 Major Findings of the Study

From the above analysis, following major findings have been obtained.

1. Liquidity management is one of the major aspect of commercial banks. Higher the liquidity reduces the liquidity risk and save from the bankruptcy but it also lose the opportunity to earn higher profits by lending or investing the reserves into higher returns. So the bank has to manage the optimum liquidity position focusing the NRB directive Nabil bank has lowest CRR ratio among the three
banks with the average of $\mathbf{6 . 1 0 \%}$ and is well above the NRB directive of 5.5\%.. they have succeed to manage the CRR ratio at optimum and has more investment and lending for the higher returns. NIBL has average CRR of $11.91 \%$ which is bit higher than the standard and they could have invested the excess reserve somewhere for higher returns. BOK too have bit higher CRR with $9.40 \%$ which they are losing the opportunity to earn higher return of that excess reserve. Investment in government securities are also viewed as the liquid assets as they are easily turned into cash. NIBL has lower investment in government securities in comparison with the other two banks. Bok has managed to invest $18.24 \%$ of total deposits in government securities and also manages to reduces the liquidity risk by obtaining higher liquid assets.
2. Asset management is one of the vital part for the commercial banks. Investing in the higher quality assets reduces the credit risk and generates higher profits. Nabil banks has lower average ratio of loan and advances to total deposit ratio of $69.36 \%$ with NIBL and BOK having $73.02 \%$ and $74.18 \%$ respectively. But the trend is showing the growing pattern for all the banks. BOK has higher ratio of lending to total deposit which means they are earning higher return from their deposits from lending. But higher the loan and advances to total deposits ratio increases the liquidity risk which the Nabil bank has managed well. Loan and advances which crosses the due date are called non performance assets. Nabil bank has minimum level of average nonperforming assets to total assets with $0.65 \%$ in relation with NIBL and BOK with $1.15 \%$ and $1.74 \%$. The trend show the all the banks has performed well in reducing the ratio below $1 \%$.
3. Loan and advances that are granted to the customers is the major basis for commercial banks to earn profits. Due to market condition not all the loan can be collected in the due time so non-performing loan in nearly inevitable for the commercial banks. Good banks are the one who keeps the non- performing loan very low. Among the three banks, Nabil has lower average non- performing loan to total loan and advances with $1.10 \%$ in relation to that of NIBL and BOK with $1.82 \%$ and $2.76 \%$. All three banks have been able to reduce their nonperforming loan ratio in recent years and NIBL has reduces the minimum to $0.59 \%$ in the year 2008/09. As directed by the NRB banks should have some provision for the different types of loan. Nabil Bank has the lower loan loss
provision to total loan and advances with average $2.36 \%$ in relation to that of NIBL and BOK with $2.55 \%$ and $3.04 \%$ respectively which mean Nabil has low non performing loan and has lower provisioning. Nabil banks has provisioned higher than the standard for the pass loan where NIBL and BOK failed to meet the standard in the year 2004/05.NIBL and BOK have met the standard of $1 \%$ in later years. In provisioning of substandard loan Nabil has excess provisioning than the standard of $25 \%$. NIBL has failed to meet the standard in the year2007/08. BOK has managed with the standard later years while failing the 2004/05 with the little. In case of provisioning of doubtful loan, Nabil banks has failed to meet the standard in the year 2005/06 to 2007/08. NIBL has failed to meet the standard in the year 2008/09 and Bok has failed to meet the standard in the year 2004/05 with nearly $4 \%$ and failed by a little in year 2007/08 and 2008/09. For provisioning the bad loan all three banks has failed in average with Nabil having 91.45\% NIBL having 97.97\% and BOK having 97.64\%. the trend shows Nabil is far away with the standard of $100 \%$ provisioning where as NIBL has met the standard in last two years and BOK is little short from the standard.
4. Lending to the different sectors of the industries has to be determined after the analysis of the situation of the industries and its internal and external environment. The economic growth of the country also depends on the growth of these industries and for industries to grow they need working fund which are basically collected through loans from commercial banks. The analysis of four years average shows that all there sampled banks has lend highest portion in the production sector Nabil with $35.24 \%$ NIBL and BOK with $33.93 \%$ and $28.49 \%$ respectively. After the production industry wholesaler and retailer has obtained the maximum loan from all three banks. NIBL has provide $11.68 \%$ of loan in service industries other two banks being low with $8.42 \%$ and $8.89 \%$. All three banks has lend very low in the agriculture and mining industry with below $1 \%$. which shows the commercial banks lower interest in the agricultural sector in transportation sector BOK has higher loan portfolio with $12.90 \%$ in relation to that of NABIL and NIBL with $5.92 \%$ and $4.56 \%$ respectively. All the three banks have not lend in the local government sectors.
5. Profitability of the banks depends in the income the bank generates and the expenses they make. For the higher profit Bank should focus in investing in
higher return within the limit and should manage in reducing the expenses. Nabil bank has low cost of deposits as the interest expenses to total expanses is low then other two banks. NIBL has the highest cost of deposit in their expenses with average of $63.98 \%$ of total expenses. Interest income to credit and investment ratio off all three banks have not much difference. The average ratio of Nabil, NIBL and BOK are $6.83 \%, 6.66 \%$ and $6.62 \%$ respectively. This show that all three banks have invested with the similar rate or lend in the same rate to their customers which might be due to the high competition in commercial banks. The net profit to loan and advances ratio of Nabil bank is higher with $4.28 \%$ than that of NIBL and Bok with $2.60 \%$ and $2.54 \%$ respectively. Nabil Bank has managed to earn higher profit with their loan and advances than NIBL and BOK.
6. From the analysis of the correlation coefficient it is found out that all three banks have highly positive correlation with total deposits and loan and advances. When there is increase in the deposits there is increase in the loans. Banks have mostly utilized their deposits in the loan and advances rather than in investing in other areas. Similarly, there is a highly positive correlation between net profits and total loan and advances of all three sampled banks. With the increase in the total loan and advances, banks are able to generate higher profits.

## CHAPTER - FIVE

## Summary, Conclusion and Recommendation

This chapter includes the summary conclusion and recommendation of the study conducted on the basis of the findings through the analysis with various financial and statistical tools. After the identification 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 which has been prepared in this chapter.

### 5.1 Summary

Viewing 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 highly urban cities to the remote villages but the financial institutions lack to give proper control over the quality and the performance. One of the major problems in the present economic context is the liquidity crisis.

NRB has directed all the commercial banks to maintain the CRR of $5.5 \%$ and invest certain percent of their deposits on government securities through the purchase of T Bills and Development Bonds. Looking at the five years CRR ratio of the three sampled banks, all looked to be comfortable in maintaining the CRR as directed by NRB except Nabil going short in the year 2004 and 2005. Investment in the government securities of all three sampled banks average is above $10 \%$ which also helped them in minimizing the liquidity risk but the ratio has fallen in the last year for all the banks which the banks should be cautioned about.

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 leverage in the lending ratio to manage the liquidity risk. The average credit to deposit (CD) ratio of all three sampled banks are between $68 \%$ to $75 \%$ which lies in the optimum position in the present economic scenario but the recent trend shows the increment in this ratio which the banks needs to control the growth.

The loan and advances of the commercial banks are for certain period of time. if the loans couldn't be collected within the due date then the bank has to provision certain percentage as loan loss provision which negatively affect the bank performance and the goodwill. The average non-performing assets to total assets of Nabil, NIBL and BOK are $0.65 \%, 1.15 \%, 1.74 \%$ respectively and in the decreasing trend for all. Similarly, the non- performance assets total loan and advances ratio for Nabil is $1.10 \%$, NIBL with $1.82 \%$, Bok with $2.76 \%$. Nabil bank has the lowest loan loss provision among the three banks but the other two has also maintained low ratios. With the analysis it is found out that the provisioning by all the three banks are not according to the NRB standard as the analysis shows the short falls in the ratios in different years by these banks.

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 these three 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 lend $12.90 \%$ in transportation sector where the other two has lend around $5 \%$ in the same. In services sector, NIBL has lend 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. Nabil banks has the lowest interest expenses to total expenses. Likewise, the interest income to total credit and investment ratio is $6.83 \%$ of Nabil and $6.66 \%$ and $6.62 \%$ of NIBL and BOK. The ratio shows that the sampled banks has invested relatively on same interest rate with Nabil in bit higher rate.

Net profits of the commercial banks are highly positively correlated with the total loan and advances. The correlation analysis of the three sampled banks shows that the increased in the total loan and advances also increased the net profits. Similarly, the total deposits are 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

The global economic recession has highly effected the financial institutions of most of the developed countries. Slowly the recession is showing its effects in developing countries like Nepal too. The decreasing growth rate in the remittance business and the liquidity crisis are some examples of it. High differences in the balance of payment, low level of exports, increasing imports and the economic dependence with India, instable political environment and uncertain government policies are the current economic situation if the country.

Since the 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 reliable. High proportion of the commercial banks lending toward real estate has been a major concern in the present context. Crisis of the physical cash few months back and the liquidity crisis in the financial market have been highly affecting the commercial banks. The rise in the inter-bank 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.

Present 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 survive. Among the three sampled banks, Nabil and NIBL are the top commercial banks of Nepal whereas BOK is the rising commercial bank. Form the analysis, its seen that Nabil bank has performed well in all the aspects and has achieved most of the standards with higher returns. But there are some areas where the bank has to focus on like meeting the standard of provisioning lo loan losses and the managing adequate liquidity. NIBL has performed better every year with the higher growth rate in most of the sectors. NIBL has managed to decrease 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. They had adequate liquidity in these five years with higher CRR and the investment in government securities. They are able to maintain the optimum CD 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 perform harder to be in the standard.

Commercial banks plays vital role in the development of the country. Their lending towards different sectors helps them to grow and expand. The lending to the productive sectors helps to lift the economy. The loan and advances portfolio of the three sampled banks show the major proportion of the lending on the production sector followed by wholesaler and retailer sector. Even the most of the lending are towards production sector. There isn't any improvement in these sectors. Most of the production houses have gone down due to political instability and their internal issues. The investment in the service sector is also relatively very low which plays an important role in the development of the country. There is very low investment in the agriculture sector which used to be the vital part of the country's economy. Since the environment never be the same of all the sectors, commercial banks must analyze the situation of every sectors time to time for the security to their lending and to identify the new areas to invest. They should deduct 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 vital 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.

### 5.3 Recommendation

Following points are recommended for the study of the credit management of the three sampled banks.

* All the three banks has managed adequate CRR ratio maintaining above $5.5 \%$ as directed by NRB but NIBL and BOK have higher ratios which remained idle in their $\mathrm{a} / \mathrm{c}$. The idle excess fund could be invested where there is higher return.
- Investment in the government securities shows the decreasing trend in the year 2008/09 for all three sampled banks. All three banks must focus on maintaining the standard SLR ratio as guided by NRB. Instead of maintaining excess CRR NIBL and BOK could bid for the government securities where they can earn interest.
* Nabil bank has low credit to deposit ratio less than $70 \%$ so they still have opportunity to lend with minimum liquidity risk so they should identify the appropriate sector and lend for higher return.
* Non-performing loan to total loan ratio of all three banks are satisfying and in decreasing trend. But keeping in view, that Nepalese market will be free for the international financial organization they have to still perform harder to keep this ratio very low.
* BOK has high loan loss provision compared to that of Nabil and NIBL. They should focus on reducing this ratio by reducing the no performing loan because higher loan loss provision negatively affects the profit.
* Nabil bank has highly provisioned the substandard loan which has reduced their profits so they should focus on reducing the same to the standard level and maximize the profit. NIBL has failed to achieve the provisioning ratio of substandard loan in recent years so the banks should increase their provisioning for the betterment and goodwill.
- All three banks has failed to maintain the standard of $50 \%$ provisioning of doubtful loan in some years so all three banks should maintain proper provisioning every year.
* Nabil bank provisioning of bad loans is worse among the three banks being highly low than the standard. They should take proper action in being with the standard. BOK is also bit short in bad loan provisioning so it also focus on increasing the provisioning.
* Sector wise lending of all three banks are highly concentrated in some areas. Their higher proportion in the production sector has yet positively affected the economy. Their loan proportion in service industries is very low and negligible in agriculture industries. So all three commercial banks should diversify their loan and advances in new and profitable sectors. They should focus on lending to the productive sectors rather than focusing in the retail market. Since the consumer lending only give rise to inflation they should focus in productive lending and long term projects like hydropower infra-structure building, construction and mining and service sectors which also contributes in the economic growth. Since the environment in not always
the same forever, this entire bank must revise their loan portfolio as per the internal and external environment of the different industries.
* Profit maximization is possible through higher investment or by reducing the cost. Banks should focus in reducing the cost by focusing in collecting low cost deposits and investing in the higher returns.


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## APPENDIX

Total Deposits (in Millions)

| Year | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6} / \mathbf{0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ | $\mathbf{2 0 0 8 / 0 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NABIL | 14119.03 | 14586.61 | 19347.40 | 23342.29 | 31915.05 | 37348.26 |
| NIBL | 11524.68 | 14254.57 | 18927.31 | 24488.86 | 34451.73 | 46698.10 |
| BOK | 7741.64 | 8942.75 | 10485.36 | 12388.93 | 15833.74 | 18083.98 |

Total Assets (in Millions)

| Year | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ | $\mathbf{2 0 0 8 / 0 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NABIL | 16745.49 | 17186.33 | 22329.97 | 27253.39 | 37132.76 | 43867.40 |
| NIBL | 13255.50 | 16274.06 | 21330.14 | 27590.84 | 38873.31 | 53010.80 |
| BOK | 9496.34 | 9857.13 | 12278.33 | 14570.10 | 17721.93 | 20496.01 |

Loan and Advances in millions

| Years | $\mathbf{2 0 0 4} / \mathbf{0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6} / \mathbf{0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ | $\mathbf{2 0 0 8 / 0 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NABIL | 10586.17 | 12922.54 | 15545.78 | 21365.05 | 27589.93 |
| NIBL | 10126.06 | 12776.21 | 17286.43 | 26996.65 | 36241.21 |
| BOK | 5912.58 | 7259.08 | 9399.33 | 12462.64 | 14647.30 |

Investment in millions

| Years | $\mathbf{2 0 0 4} / \mathbf{0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ | $\mathbf{2 0 0 8 / 0 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NABIL | 4267.23 | 6178.53 | 8945.31 | 9939.77 | 10826.38 |
| NIBL | 3934.19 | 5602.87 | 6505.68 | 6874.02 | 7399.81 |
| BOK | 2598.25 | 3374.71 | 2992.43 | 3204.07 | 2783.60 |

Total loan and investment in millions

| Years | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5} / \mathbf{0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ | $\mathbf{2 0 0 8 / 0 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NABIL | 14853.40 | 19101.08 | 24491.09 | 31304.82 | 38416.31 |
| NIBL | 14060.25 | 18379.08 | 23792.11 | 33870.68 | 43641.02 |
| BOK | 8510.83 | 10633.80 | 12391.76 | 15666.71 | 17430.90 |

Calculation of Average Cash Reserve Ratio of Nabil Bank

| Years | Cash \& Bank Balance | Deposits | CRR\% |
| :---: | :---: | :---: | :---: |
| $2004 / 05$ | 559.38 | 14586.61 | 3.83 |
| $2005 / 06$ | 630.24 | 19347.40 | 3.26 |
| $2006 / 07$ | 1399.83 | 23342.29 | 6.00 |
| $2007 / 08$ | 2671.14 | 31915.05 | 8.37 |
| $2008 / 09$ | 3372.51 | 37348.26 | 9.03 |
| Mean |  |  |  |
| $\mathbf{6 . 1 0}$ |  |  |  |

Mean $(\bar{X})=\frac{\Sigma X}{n}=\frac{3.8+3.2+6+8.3+9.0}{5}=6.10$

Calculation of Standard Deviation:
S.D. $=\sqrt{\frac{\sum(x-\bar{x})^{2}}{(n-1)}}=\sqrt{\frac{26.96}{5}}=2.60$

Correlation between Total deposit and loan and advances of Nabil bank
(in million)

| Years | Total Deposit | Loan and Advances |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 14586.61 | 10586.17 |  |  |  |
| $2005 / 06$ | 19347.40 | 12922.54 |  |  |  |
| $2006 / 07$ | 23342.29 | 15545.78 |  |  |  |
| $2007 / 08$ | 31915.05 | 21365.05 |  |  |  |
| $2008 / 09$ | 37348.26 | 27589.93 |  |  |  |
|  |  |  |  | Correlation (r) | 0.9987 |
|  | 0.000729 |  |  |  |  |

Calculation of Correlation coefficient:

$$
\begin{aligned}
\text { Simple Correlation Coefficient }(\mathrm{r}) & =\frac{\sum X Y}{\sqrt{\sum X^{2} \sum Y^{2}}} \\
& =\frac{2479610506.64}{2482609869.25}
\end{aligned}
$$

$$
\mathrm{r}=0.9987
$$

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

$$
=0.000729
$$

