CHAPTER - I
INTRODUCTION

1.1 Background of the Study

The development of any country highly depends on the development of its financial sector. Financial sector comprises of bank, co-operatives, insurance companies, financial companies, financial markets, mutual funds etc. Financial institutions play a major role in the proper functioning of an economy. These institutions collect idle and scattered money from the general public and invest in different enterprises of the national economy that consequently help in increasing employment opportunities, increasing in life style of people, reducing poverty and thereby developing the society and the nation as a whole.

Nepal has been facing the problem of accelerating the pace of economic development. Economic development of a country depends upon the upliftment of the rural people through increasing their productivity thereby raising their incomes, which ultimately help them to cross the poverty line. The commercial banking system in Nepal is still in its infant stage as compared to other developed countries. However, their important role in the economic development of the country has been fully realized and these banks are being oriented in their activities best suited for the overall economic development of a country. For the upliftment of rural people and economic development of a country as a whole, the government has initiated different priority sector lending programs focusing on poverty alleviation. The priority sector lending programs were area based or target/ group oriented, need based and complementary, timely and consistent with the national goals and suited to the specific needs of Nepal's rural economy of the country.

Banks play a significant role in the development of a country. Bank is a financial institution, which maintains the self-confidence of various segments of society and extends credit to the people. The financial institution is an indispensable part for the upliftment of a country. The financial institution is a vast field comprising of banks, financial companies, insurance companies, co-operatives, stock exchange and foreign exchange markets, mutual fund, etc. These institutions collect idle and scattered money from the general public and finally invest in different enterprises that consequently help in reducing poverty, increase in life style of people, increase employment opportunities, and thereby developing society and the country as a whole. Thus, today the financial institutions have become the base for measuring the level of economic development of a country.

1.2 Origin of Bank in Nepal

The history of modern financial system of Nepal was begun in 1994 B.S, with the establishment of the Nepal Bank Ltd. (NBL) as the first commercial bank of Nepal with the joint ownership of government and general public. It was established under “special banking act 1993” having elementary function of commercial banks. Later, Nepal Rastra Bank (NRB) was established after 19 years since the establishment of the first commercial bank i.e. Nepal Bank Limited in 2013 B.S., under “Nepal Rastra Bank act 2012” with an objective of supervising, protecting and directing the function of commercial bank activities. After the establishment of NRB, Nepal witnessed a systematic development of the financial system. After the restoration of democracy in 1991, Nepal has clearly been following a liberalized economic policy and witnessing diversification in financial system. As a result, various banking and non-banking financial institutions have come into existence. Then after in 2016 Nepal Industrial Development Corporation, in 2022 Rastriya Banijya Bank (RBB) under “Rastriya Banijya Bank act 2021” and in 2024 Agriculture Development Bank was established in Nepalese financial sector. Nepal Bank Limited and Rastriya Banijya Bank are the two major commercial banks in Nepal that are providing credit under different Priority Sector Credit Programs in rural areas from their initial stage. They have contributed a lot in the upliftment of rural people and socio- economic development of a country. As both banks are established as public enterprises their main objective is to maximize social benefit for the development of a country rather than profit maximization as profit making motive is their secondary objectives. The financial scenario has changed to a new horizon with the establishment of joint venture bank in the year 2041 B.S. The efficient operating practice and policy adopted by these joint venture banks helps Nepal to take a broad step in this banking field.

With the opening of NABIL bank in 1985 the door of private sectors' commercial banks was released. After that lot of commercial banks was opened in Nepal. Today all the banks except few like Nepal bank Ltd., Agriculture Development Bank, Rastriya Banijya bank are making profit. The efficiency of these public sector banks has led to the success of other private banks. After the financial liberation took place in Nepal in the mid 1980's, bank innovates to remain in forefront that is better use of funds, easily availability of funds to the entrepreneurs, better returns to the depositors, professional approach towards customer's satisfaction. Today altogether there are 30 Commercial Banks, 59 Development Banks, 78 Finance Companies, and 12 Micro Credit Development Banks, 16 saving and Credit Cooperatives and 47 NGOs functioning in the country. These financial institutions are under the regulation and supervision of the NRB. Besides these institutions, there are more than 3000 registered saving and credit cooperatives operating in the different part of the country and there are many NGOs involves in this sector.

1.3 Nepal Investment Bank Limited (NIBL)

Nepal Investment Bank Ltd. (NIBL), previously known as 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 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 has 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. Rastriya Banijya Bank holds 15%, Rastriya Beema Sansthan holds 15%, General Public holds 20%, and the Nepalese promoters hold 50%.

NIBL, which is managed by a team of experienced bankers and professionals having proven track record, can offer the customer what they're looking for. Beside commercial banking services, the bank also offers industrial and merchant banking services. The bank has 15 branches in Kathmandu Valley at the following locations: Putalisadak, New Road, Pulchowk (Lalitpur), Thamel, Kalimati, Seepadol, Boudha, Tripureshwor, Bhotahiti, Lazimpat, gongabu, New Baneshwor, Dhumabarahi, Maharajgunj, (Bhaktapur). In addition, the bank also has 23 other branches outside Kathmandu Valley in Banepa, Narayangarh, Birgunj, Janakpur, Gaighat, Lalbandhi, Parsa, Krishnanagar, Dhangadi, Surkhet , Jumla, Hetauda, Palpa, Damauli, Lukla, Tulsipur, Jeetpur, Bhairawa, Biratnagar, Pokhara, Nepaljung, Butwal and Birtamod. Bank will be aggressively opening new branches at different parts of the Kingdom to serve its customers better. Investment Bank Limited has always been committed to provide a quality service to its valued customers, being truly a Nepali Bank. All customers are treated with utmost courtesy as valued clients. The bank, wherever possible, offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers, Investment Bank Limited has adopted the latest banking technology. This has not only helped the bank to constantly improve its service level but has also prepared the bank for future adaptation to new technology. The Bank already offers unique services such as the pre-paid mobile recharging system through its ATM, SMS Banking and Internet Banking to customers and will be introducing more services like these in the near future. Recently, it has brought a new scheme that everyone can open its own saving Account on 'Zero' Balance also.

Table 1.1

Capital Structure of Investment Bank Limited

Capital as at 2009	Amount in Rs. '000'
Authorized Capital	4,000,000.00
Issued Capital	2409097.70
Paid up Capital	2407068.90

1.4 Focus of the Study

Although, joint venture banks have managed credit than other local commercial banks within short span of time, they have been facing a neck –to-neck competition against one another. Among this joint venture banks, this research is based on mainly joint venture banks, namely Nepal Investment Bank Limited. Joint venture commercial banks play a tremendous role in a developed or developing nation. It also helps to improve the economic sector of the country. Typically, commercial banks' main motive is to make profit by providing quality services to the customers. In Nepal, there exist 30 commercial banks realizing their services. The study focuses on evaluating the deposits utilization of the bank in terms of loans, advances and investments. It also focuses on the contribution in the profitability of the bank. Commercial banks are the heart of financial system. They hold the deposit of many persons, government establishment and business units. They make fund available through their lending and investing activities to borrowing individual, business firms and government establishment. In doing so, they assist both the flow of goods and services from the producers to consumers and the financial activities of the government. They provide a large portion of medium of exchange and they are the media through which monetary policy is affected. These facts show that commercial banking system of nation is important to the functioning of the economy.

Financial institution is currently viewed as catalyst in the process of economic growth of country. The financial institution helps in the process of resources mobilization as the mobilization of the domestic resources and intermediaries is the key factor for the development of an economy. The importance of financial institutions in the economy has of late grown to an enormous extent. The government in turn is required to regulate their activities. So, the financial policies are implemented as per the requirement of the country.

Therefore, this research focused the above resource mainly to highlight and examine the credit management of the selected bank ignoring other aspects of bank transaction. To highlight the credit management of the bank, the research is based on the certain statistical tools i.e. with a view to find out the true picture of the bank. The main objective of this research is to analyze the credit management through the use of appropriate financial tools.

1.5 Statement of the Problem

Commercial banks in Nepal have been facing various challenges and problems. Some of them are arising due to the economic condition of the country, some due to confused policy of government and many of them arising due of default borrowers. After liberalization of economy, banking sector has various opportunities. Lending in industries and production sectors are very risky projects. Banks are investing in house loan, hire purchase loan for safety purpose. Due to the lack of lending opportunities, banks are facing problem of over liquidity.

Nowadays, banks have increasing number of deposits in fixed and saving accounts but have decreasing trend in lending behaviors. So, this has caused major problems in commercial banks. Similarly, due to competition among banks, the interest rate charge for loan is in decreasing trend. Non-performing assets have become a large problem in the commercial banks. The banks and financial institutions are competing among themselves to advance credit to limited opportunity sectors. Due to unhealthy competition among the banks, the recovery of the banks credit is going towards negative trends. Non-performing Credits of the banks are increasing year by year. To control such state, the regulatory body of the banks and financial institutions, NRB has renewed its directives of the credit loss provision. In order to analyze the Credit Management of commercial bank following research problems are formulated.

Is the bank mobilizations and credit Management effective and efficient?

- Is credit efficiency of NIBL influences the profitability?
- What is the impact of deposit and loan and advance in liquidity?
- What is the proportion of Non-performing Asset on total loans and advances of the bank?
- Is NIBL maintaining lending efficiency?
- What is the situation of total loans and advances with total deposit and its net profit?
- Whether the assets management and portfolio ratio of Nepal Investment Bank Limited is efficient?

1.6 Objective of the Study

Undoubtedly, the role of commercial bank in mobilizing and utilizing scattered resources of nation is praiseworthy one. The basis objective of the study is to have true insight into the credit management aspects of Nepal investment Bank Ltd.

This aims to examine its efficient in effectiveness, systematization and sincerity in disbursing and recovery loan as well within the directives of NRB, Financial institution act and its own policy.

The main objective of this study is to evaluate the credit management of Nepal Investment Bank Limited. Besides, there may be other objectives as well. They are:

1. To examine the impact of deposit in liquidity.
2. To know whether credit efficiency of NIBL influences the profitability or not.
3. To examine and evaluate the various stages occurred in loan management procedure.
4. To find out the proportion of Non-performing Asset on total loans and advances of the bank.
5. To analyze the lending efficiency of the Nepal Investment Bank Limited.
6. To study the situation of total loans and advances with total deposit and its net profit?
7. To examine the assets management efficiency and portfolio ratios of Nepal Investment Bank Limited.

1.7 Need of the Study

The needs of the study are:

1. The study will give a clear picture of financial position of the company under study.
2. This study will provide information to those who are planning to invest in Nepal Investment Bank Limited.
3. With the help of the report of this study, the management may apply corrective measures for the improvement of the banks performance.

4. The policy formulation of the bank may gain something with the help of the result of this study.
5. The study will help general public to know about the overall financial position of the Nepal Investment Bank Limited.
6. After the completion, this report will be kept in the library, which plays the role of reference to the students making the similar study in future.

1.8 Limitations of the Study

The studies being the partial fulfillment of master degree in business studies has the following limitation:

Being a student, lack of the sufficient time resources is the major limitation. Beside that, proper information and data are not available and only 5 years data is taken for the analysis. The study has been conducted as partial fulfillment of the requirement for the "Master of Business Study" of management faculty of T.U.

1.9 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 chapters 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 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 for better improvement.

CHAPTER - II
REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant proposition in the related area of the study so that all the past and previous studies, their conclusion and perspective of deficiency may be known and further researcher can be conducted or done.

In other words, it is just like finding the fact based on sound theoretical framework oriented towards discovery of relationship guided by experience, resonating and empirical investigation.

The primary purpose of literature is to learn and it helps researcher to find out what research studies have been conducted in one's chosen field of study, and what remains to be done. For review study, the researcher uses different books and journal, reviews and abstracts, indexes, reports, and dissertation or research studies published by various institutions, encyclopedia etc.

Here, the review of literature is divided into two headings:

- Conceptual Review
- Review of related Studies.

2.1 Theoretical /Conceptual Review

2.1.1 Concept of Bank

Simply, Bank is financial institutions that accepts deposits and invest the amount in the leading activities and also provide the commercial services. In ancient, the words Bank was emerged form Latin words Bancus, French words Banque and Italian words Banca, which means a Bench where sitting over there invest exchange and keep record of money and cash. All these functional activity is formed as current banking activities.

According to S. and S definition of bank, "a banker or bank is a person or company carrying on the business of receiving money collecting drafts, for customers subject to the obligation of honoring cheque drawn upon them from time to time by the customers to the extent to the amount available on their customer" *(Shekher & Shekher; 1999).*

Paget states that "no one can be a banker who does not take deposit accounts, take current accounts, issues and pay cheque of crossed and uncrossed, for his customers". He further adds that if the banking business carried on by any person is subsidiary to some other business he cannot be regarded as a banker *(Paget; 1987).*

The words Bank refer as Central bank, Commercial bank, Development bank, Exchange bank, Saving bank, Cooperative bank, Merchant bank, Housing bank, Equipment bank, Infrastructure bank and Mutual fund etc., they provide financial as well as non-financial services. Bank is a financial intermediary between depositors or lender and withdrawal or loaner. It plays a great role that helps investors to invest in different sectors by giving a loan and providing other consultancy and agency services. Thus, the words bank itsself provides huge sense of banking activity.

2.1.2 Concept of Commercial Bank

Commercial bank is a corporate business venture which has certain paid up capital and provide loan, accept deposit, exchange money and other consultancy, agency, guarantee etc. Commerce is the financial transactions related to selling and buying activities of goods and services. Therefore, commercial banks are those banks which work from commercial viewpoint. They perform all kinds of banking functions as accepting deposits, advancing credits, credit creation and agency functions. They provide short-term credit, medium term credits and long terms credit as well as issuing guarantee, bonds, letter of credit etc. to the trade and industry.

“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: 9).*

“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 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 functions 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. Bank which undertakes business with an 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 cheque, safekeeping of valuables, financial advising, agencies functions, keeping of guarantee etc to their value customers.

2.1.3 Functions of Commercial Banks

The purpose 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, Safekeeping of valuables, Making Venture Capital Credits, Financial Advising and Offers Security Brokerage Services. They also functions 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. They also :

i) Assist in Foreign Trade

The bank assist the traders engaged in foreign trade of the country. They discount the bills of exchange drawn by exporters on the foreign importers and enable the exporters to receive money in the home currency. Similarly, they also accept the bills drawn by foreign exports.

ii) Offers Investment Banking and Merchant Banking Services

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

2.1.4 Concept of Credit

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. Sum of the money lent by a bank, is known as credit (Oxford Advanced Learners Dictionary, 1992). Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances, which is one of the major sources of income for banks. Bank prepares credit portfolio otherwise, it will not only add bad debts but also affect profitability adversely *(Varshney and Swaroop; 1994: 42).*

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

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

2.1.5 Types of Credit

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

Priority or Deprived Sector Credit

Commercial banks are required to extend advances to the priority and deprived sector. 12% of the total Credit must be toward priority sector including deprived sector. Rs.2 million for agriculture cum service sector and Rs.2.5 million for single borrowers are limit sanctioned to priority sector. Institutional support to "Agriculture Development Bank" and Rural Development Bank are also considered under this category. Deprived sector lending includes Advances to poor/ downtrodden/ weak/deprived people up to Rs 30,000 for generating income or employment Institutional Credit to Rural Development Bank. Credits to NGOs which are permitted to carryout banking transactions for lending up to Rs.30, 000 as mentioned in the official website.

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.

Housing Credit (Real Estate Credit)

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

Project Credit

Project credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit.

Construction credit is short-term credits made to developers for the purpose of completing proposed projects, maturities on developers for completing proposed projects. Maturities on construction credits range from 12 months to as long as 4 to 5 years, depending on the construction credits range from 12 months to as long as 4 to 5 years, depending on the size of the specific project . The basic guideline principle involved in disbursement policy is to advance funds corresponding to the completion policy, to advance funds corresponding to the completion stage of the project. Term of credit needed for project fall under it *(Johnson; 1940:83).*

Consortium Credit

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

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 results in 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.

Off-Balance Sheet Transaction

In fact, bank guarantee and letter of credit refer to off balance sheet transactions of financial institution. It is also known as contingent liability. Contingent liability pinpoints the liability, which may or may not arise during the happening of certain event. Footnotes are kept as references to them instead of recording in the books of accounts. It is non-funded based remunerative facilities but more risky than the funded until adequate collateral are not taken. Let its two varieties be described separately:

Bank Guarantee

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

Letter of Credit (L/C)

It is issued on behalf of the customer (buyer/importer) in favor of the exporter (seller) for the import of goods and services stating to pay certain sum of money on the submission of certain documents complying the stipulated terms and conditions as per the agreement of L/C. It is also known as importers letter of credit since the bank of importer do not open separate L/C for the trade of same commodities *(Jhonson; 1940:85).*

2.1.6 Objectives of the Sound Credit Policy

The purposes of a written credit policy are:

- To assure compliance by lending personnel with the bank's polices and objectives regarding the portfolio of credits
- To provide personnel with a framework of standards within which they can operate.

2.1.7 Lending Criteria

While screening a credit application, 5-Cs has to be considered at first supported by documents.

i) 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 authorized to deal with the bank.

- As Reference to the other lenders with whom the applicant has dealt in the past or bank A/C statement of the customer.

ii) Capacity

It 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 applicants' customers/suppliers/ will further clarify the situation. Documents relating to this area are:

- 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.

iii) Capital

This 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 only the tools.

iv) 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.

v) Conditions

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 borrowers acceptance is accepted.

2.1.8 Features of Sound Lending or Credit 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:

A) Safety

Safety is the most important principle of good lending. When a banker lends, he must be 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.

B) 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.

C) 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 is required, and ensure, as far as he can, that the borrower applies the money borrowed for a particular purpose accordingly.

D) 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 for the payment of dividend to shareholders. After considering all those factors bank decides upon its lending rate.

E) 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, provides for an unexpected change in circumstance, which may affect the safety or liquidity of advance.

F) Legality

Illegal 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.

G) Spread

Another important principle of good lending is the diversification of advances. An element of risk is always present in every advance however; diversification might appear to be secure. In fact, the entire banking business is 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.

H) National Interest

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

2.1.9 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)

Lending Appraisal and Possessing

Basically, appraisal of loan proposal is the process for the analysis of variability of the scheme proposed. It also helps to assets the actual financial assistance needed to operate the scheme.

Commercial bank carries out loan appraisal on the basis of past performance, future forecast and information available form the documents submitted by aspirant borrowers.

The bank tries to ascertain the following during loan processing:

- The cost of estimate as examined so that the appropriate estimate can be accepted. Under and over estimates are rejected. Similarly, the specification of machinery should be proper.
- Working capital projection has to be reasonable as compared to past performance and on the basis of target for future expansion.
- The return rates should be adequate like return on investment (ROI), internal rate of return (IRR) and debt service coverage ratio (DSCR).
- The capacity, competency, integrity and commitment of promoters/ partners/ proprietors/ directors/ personnel should be intact.

- SWOT (strength, weakness, opportunity and threat) analysis of the proposed project must give reasonable assurance.

2.1.10 Right of Commercial Banks against Breach of Lending Agreement

A commercial bank reaches a decision whether it should provide loan and advances or not. After many discussions between the person or the businessmen who comes with a proposal of loan to the commercial bank and bank while carrying out any banking transaction, the bank and customer should follow the law, policy and instructions. The concerning law means, the Nepal Rastra Bank Act 2058 (2002) Commercial Bank Act 2031(1974) so on. Under section 47.A of the Commercial Bank Act 2031 (1974) the bank has been following rights and power to recover the loan: -

- The bank may write to the appropriate office for registration or transfer in accordance with prevailing law of the assets auctioned by it pursuant to this section in the name of the person whose bid has been approved.
- The concerned office shall do the registration or transfer if it receives such written request from any commercial bank for registration or transfer of assets pursuant to subsection (5) of section 47 A. of the Commercial Bank Act 2031(1974).
- In case no one offers a bid in an auction held by a bank pursuant to this action, the bank may take over the ownership of such assets and in such situation government offices must register or transfer those assets in their records as notified by the bank.
- If any person, institution or industry fails to comply with the terms of agreement or any terms regarding loans and advances with the bank or fails to repay loans to the commercial bank within the time limit stipulated in the documents or incase the bank finds through investigation that any person, institution or industries concerned has not invested the amount of the loan and advance for the concerned purpose or has misappropriated in the

documents or notwithstanding anything mentioned in prevailing law, the bank may auction or otherwise dispose of any property pledged to it or the security deposited with it and thus recover the principle and interest.

- If the borrowing person, institution, or industry concern relinquishes in any manner title to the property pledge to the commercial bank as collateral or in case the value of such collateral declines due to any other reason, the commercial bank without outstanding anything mentioned in prevailing law, ask the concern to furnish additional collateral within a period specified by it. In case, the concerned person, institution or industry concern fails to furnish additional collateral within the specified time limit, the commercial bank may recover its principle and interest by auctioning or otherwise disposing of the collateral pledged to it.
- If principle and interest can't be recovered through the auction sale of the collateral pledge to the bank pursuant to subsection (1) and (2) section 47.A of the Commercial Bank Act 2031(1974), the bank may recover the balance by auctioning the other assets of the concerned person, institution or industries concern.
- The amount of principle and interest and expenses incurred in auction or in other kind of disposal shall be deducted from the amount raised through the auction or disposal otherwise of assets pursuant to this section and the balance shall be refunded to the concerned person, institution, or industry concern.
- In case a complaint is field to the effect that the person who is required to relinquish the assets after their transfer under sub-section (6) and (7) of section 47.A of the Commercial Bank Act 2031 (1974) has created any obstacle or used force with the concerned person or the commercial bank, bank itself seeks to utilized such assets. Action shall be taken according to prevailing law to have possession in the assets.

2.1.11 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).*

1. Financial aspect
2. Economic aspect
3. Management /organizational aspect
4. Legal aspect

Directives Issued by NRB for the Commercial Bank: (Related to Credit Aspect Only):

1. Credit Classification and Provisioning

Classification Provision

1. Pass Credit 1%
2. Sub Standard Credit 25%
3. Doubtful Credit 50%
4. Bad Credit 100%

Those credits that have not crossed the time schedule of repayment and are within three months delay of maturity date falls under the classification topic 'pass credit'. It is also known as performing credit.

Sub-Standard Credit are those credit which has already crossed the repayment time schedule and are within 3-6 months delay of maturity date. Likewise, within 6-12 months from the time to be recovered are classified as Doubtful Credit. Those credits which are not recovered yet after 1 year from maturity date are known as Bad Credit. All the above 3 types of credits are classified as non-performing credit. The credit loss provision for performing credit is termed as general credit loss provision whereas the credit loss provision for non- performing credit is termed as specific credit loss provision.

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

2. Limit of Credit and Advances in a Particular Sector

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

Note: The Core Capital Includes {Paid Up Capital + Share Premium + Non-Redeemable Preference Share + General Fund + Accumulated Profit (Loss) – Goodwill (If Any Included)}.

Group of Related Customer

a. If a company takes 25% or more share of another company.
b. Member of board of directors of company, shareholders of private limited company and such members and shareholders with others in a single house, even if husband, wife, son, daughter, daughter in law, unmarried daughter, adopted son, adopted unmarried daughter, father, mother, stepmother, brothers and sisters etc.
c. And the above members personally or combined take 25% or more share of another company.
d. Firm, company and members as a related group.
e. Members of board of directors, shareholders and other relatives as stated in serial number 'b' takes less than 25% of board of directors of the company solely or combined but have control on the other company by the following ways:
   - Being president of board of directors of the company.
   - Being executive directors of the company.
   - Nominating more than 25% of members of board of directors of the company.
   - If cross guarantee is given by one company to another company.

2.2 Review of NRB Directives

NRB is the apex institution in the money and capital market. Being the national Central bank, it directs, supervises and controls the functions of the commercial Banks and other financial institutions. Nepal Rastra Bank has issued directives to all commercial banks and financial institution ensuring transparency during loan disbursement. As per provision, all commercial banks as well as financial institutions are now required to disclose the name of loan defaulters in every six months. Until now there was no such legal system of disclosing the loan defaulter's name. The new directives have also barred the financial institutions from lending any amount to the blacklisted defaulter and his family members. The credit information Bureau (CIB) can blacklist the firm, company or clear the debt within the stipulated period. As per the set criteria for blacklisting, the CIB would monitor those individuals and companies that have the principle loans of above Rs. one million. If the creditor fails to clear the amount within time or is found misusing the loans among others, the creditor can be blacklisted.

NRB has issued various directives in order to develop a healthy, competitive and secured banking and economic system to ensure national development. The new, updated and comprehensive set of directive has been issued on 2062-03-29 and is effective from 2062-04- 01. While some of them are collections of existing directives, some other is new additions. It can be safely assumed that with the updated and comprehensive set of directive, the functioning of commercial banks would be more transparent and systematic. The new and updated directive which is related with lending are briefly discussed below:

Capital Structure of Banks

The current regulation of NRB prescribes that all the new commercial banks are to be established in Kathmandu at national level should have minimum paid up capital Rs.2000 million; the existing banks in operation are required to enhance the capital level to Rs.2000 million by the end of FY 2065/66 BS. For this purpose and objective all the commercial banks have furnished their plans to enhance the level of capital accordingly. With effect from fiscal year 2062/63, the commercial banks need to have minimum of capital adequacy as below:

Table 2.1

Maintenance Minimum Capital Fund as According to NRB

Time Table	Required Capital on the basis of Risk weighted assets	
	Core Capital	Capital Fund
For FY 2061/62	5.5 %	11 %
For FY 2062/63	6%	12%
For FY 2063/64	5%	11%

Source: Official website of NRB

It is to be noted that capital fund comprises of both primary capital and supplementary capital. Similarly, the risk-weighted assets will include both on-balance sheet items and off-balance sheet items. Standard format and weighted percentage is given in the directive itself and commercial bank just need to fill the columns to see whether required percentage is maintained or not.

General Loan Loss Provision

Under this head, provision made only against the pass loan should be included. The amount should be limited up to 1.25 % of the total risk weighted assets. However, loan loss provision on sub-standard and doubtful loans should be available for inclusion under the supplementary capital during the period as follows.

Table 2.2

General Loan Loss Provision

Time Period	**Loan Loss Provision available for Supplementary Capital**
For FY 2058/59	Pass, Sub-Standard and Doubtful
For FY 2059/60	Pass, Sub-Standard
For FY 2060/61	Pass (Up to 1.25% of total risk weighted assets)
For FY 2061/62	Pass (Up to 1.25% of total risk weighted assets)
For FY 2062/63	Pass (Up to 1.25% of total risk weighted assets) and so on

Source: Official Website of NRB

Classification of Outstanding Loan and Advances on the basis of aging

From the effective Fiscal year 2058/59, banks should classify outstanding amount of Loans and Advances on the basis of aging. Loan and advantages should be classified into the following four categories:

1. Pass Loans

Loans and advance whose principle amount not due and past due for a period up to 3 month shall be included in this category. These are classified as Performing Loans.

2. Sub-Standard Loans

All loans and advances that are past due for a period of 3 month to 6 month shall be included in this category.

3. Doubtful Loans

All loans and advances, which are past due for a period of 6 month to one year, shall be included in this category.

4. Loss Loans

All loans and advances which are past due for a period of more than one 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 include in this category.

Provision for Good Loan

Loan and advances fully secured by gold, silver, fixed deposits receipts and Nepal Government securities should be included under “pass” category. Where collateral of fixed deposit receipt or Nepal Government securities or NRB bonds is placed as securities against loan for other purposes, such loan is classified on the basis of aging.

Additional Arrangement for "Loss" Loan Provision

Even if the loan is not due, loans having any or all of the following discrepancies shall be classified as "Loss"

- The borrower has been declared bankrupt.
- The credit has not been used for the purpose originally intend.
- The borrower is absconding or cannot be found.
- Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation.
- Loans provided to the borrowers included in the blacklist and where the credit information bureau blacklists the borrower.
- Non-security at all or security that is not in accordance with the borrower's agreement with the bank.
- Purchased or discounted bills are not realized within 90 days from the due date.

Additional Arrangement in respect of Term Loan

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

Loan Loss Provision Policy

NRB has issued the directives where commercial banks should make provision against the loan disbursed. The loan loss provision on the basis of the outstanding loans and advances classified as per NRB Directives should be provides as follows:

Table 2.3

Loan Loss Provision Policy

S.N	Classification of Loans	Define as	Age	Loans Loss Provision
01	Pass or Good	Performing Loan	Principle not overdue up to 3 months	1%
02	Sub-Standard Non-Performing Loan	Non-Performing Loan	Principle overdue by more than 3 months to 6 months	25%
03	Doubtful	Non-Performing Loan	Principle overdue by more 6 month to 12 months	50%
04	Loss or Bad	Non-Performing Loan	Loan Principle overdue by more than 12 months	100 %

Additional Provisioning for Personal Guarantee Loans

Here, the loan is extended only against personal guarantee, a statement of the assets equivalent to the personal guarantee amount not claimable by any other shall be obtained. Such loans shall be classified as per above and where the loans fall under the category of Pass, Substandard and Doubtful in addition to the normal loan loss provision applicable for the category, an additional provision by 20 % point shall be provided. Classification of such loans and advances shall be prepared separately. Hence, the loan loss provision required against the personal guarantee loan will be 21%, 45% and 70% for Pass, Standard and Doubtful category respectively.

Rescheduling and Restructuring of Loan

In respect of loans and advances falling under the category of Substandard, Doubtful or Loss, banks may reschedule or restructure such loans only after the receipt of a written plan of action from the borrower citing the following reasons:

- Evidence of existing of adequate loan documentation

- The internal and external cause contribution to deterioration of the quality of loan.
- The reduced or risk inherent to borrower/enterprise determined by analyzing its balance sheet and profit and loss account in order to estimate recent cash flows and to project future ones, in addition to assessing market conditions.
- An evaluation of the borrower/enterprises' management with particular emphasis on efficiency, commitment and high standards of business ethics, Loan Loss Provision in respect of rescheduled, restructured or swapped loan.
- Except for priority sector, in respect of all types of rescheduling or restructured or swapped loan, if such credit falls under Pass category according to Nepal Rastra Bank directives, loan loss provision shall be provided at minimum 12.50%
- In case of rescheduling or restructuring or swapping or insured of insured or guaranteed priority sector credit, the loan loss provisioning shall be provided at one fourth of the percentage.
- In respect of swapped loans, the bank accepting the loans in swapping has to provide loan loss provision. Classifying the loan in swapping shall obtain certification from the concerned bank of financial institution as to the existing classification.

Loss Loan Provision for Priority Sector Lending

Full provision as per normal loan loss provision shall be made against the uninsured priority and deprived sector loans. However, in respect to the insured loans the requisite provisioning shall be 25% of the percentage normal loan loss provisioning. The required provisioning in the case of insured priority/deprived sector credit is as follows:

Table 2.4

Loss Loan Provision for Priority Sector Lending

Classification of Loans	Loss Provision for Priority/ Deprived Sector Lending
Pass or Good	0.25%
Sub-Standard	5.00%
Doubtful	12.50%
Loss or Bad	25.00%

2.3 Review of Related Studies

Baidhaya (1996), in his article **"***Banking Management Nepal": Monitor Nepal* has given his view on sound credit policy. He has said that, a sound credit policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provides maximum safety and security to depositors and bank on the other hand, moreover risk in banking sector trends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble its problem usually spring from significant amounts of loan that have become uncollectible due to mismanagement, illegal manipulation of loan misguided lending policy or unexpected economic downturn.

Therefore, the banks credit policy must be such that it is sound and prudent in order to protect public funds. The article published in Annual Bank supervision Report NRB (2006/07), Bank supervision Department; conclude that the loan and advances extended by banking industry. The loans and advances of the public banks (excluding ADB) have remained more or less the same for the last three years, while the private banks have enhanced their portfolio by more them Rs 20.50 billion resulting in the dilution of the concentration of public banks. However, the three public banks are still the three largest individual banks in Nepal, in respect of the size of their loans portfolio.

The Nepalese banking system is riddled with a significant amount of non-performing assets (NPA). From the following picture it has clear evident that the volume of non- performing assets is declining while total loans are continuously increasing thus resulting in a favorable proportion of Non-performing assets. The NPA ratio, however is still a long way from being at satisfactory level with regard to quality of the loan portfolio of the individual banks. Among the private banks, it was Nepal Bangladesh bank, Lumbini Bank and NCC who had the largest proportion of NPA in their portfolio, while the lowest and the best NPA ratio belonged to Machhapuchhre Bank Ltd. RBB has 60% of Bad debts and according to FY 2063/064 NPA of RBB has 26%. In FY 2063/064 Bad debt principle is Rs 40 million.

The large volume NPA has traditionally been a problem in public banks and three private banks. After a reform program was initiated in the public banks, the volume of NPA, both gross as well as net has came down significantly. A wide gap between NPA and provision can be observed.

Crosby, French and Oughton (2007), in their article "*Banking Lending Valuations on Commercial Property". Journal of Property Investment & Finance U.S.A. Vol. No. 5* elaborates that the banking community are trying to identify the value on which they can apply a loan value ratio and thus protect their loan in the future from the borrower default. A simplistic understanding the value therefore suggest that figure provided should such which has a life for the length of the loan. However, the concept is economically impossible in any market with volatility. Values can only be snapshots in time. They do not have a shelf life.

For this reason EMLV is conceptually and practically redundant in real estate markets. It appears on the surface to be a solution to the bank's requirement for the reduced risk property lending. In reality, it may indeed transfer that risk by demanding a level of protection to the bank which valuation cannot be given. But if values agreed to it, it could open the way to successful negligence claims in the result of poor lending decisions. This is because the concepts appears the determinants of the virtually certain level of value below which the value will not fall for an indeterminate time in the future. Values are vulnerable to claims that their valuation was too high and should fall below that level at any time during the loan.

Sustainable value is predicated on having a shelf life but the application believes this is a fundamental requirement. Values must have a time point. The concept is redundant, the target is unidentifiable and the definition is ambiguous. It is little wonderful that the application appears mechanistic. Market value is an obtainable and useful piece of information to the lender. Worth in the market sets this in the context and gives the lender a view of whether market prices are at current sustainable levels or not. In obtaining worth, the value is obliged to carry out both quantitative and qualitative investigation in the future.

EMLV appears to be another blind alley which will divert the appraisal profession from its more important task of improving pricing estimates and thereby influencing market prices and providing all clients with the information in reports which puts the limitations of valuation figure into perspective.

Mundul, (2008), in his article *"Understanding of Credit Derivative Business Age September"* emphases credit derivative, enable financial institution and companies to transfer credit risk to a third party and thymus reduce their exposure to the risk of an obligor's default. Credit enhancement technique, which helps reduce the credit risk of an obligation, play a key role in encouraging loans and investment in debts. In legal term, credit derivative are privately negotiated bilateral contract to transfer credit risk from one party to another.

Some credit enhancement methodologies have existed for a longtime with the support of guarantee, letter of credit or insurance product. However, such mechanism works best during economic upturns. As an alternative to commercial risk mechanism, various financial mechanisms have been developed over the past few decades. Such credit risks instruments normally refer to as credit derivatives. Credit derivative helps to transfer credit risk away from the lender to some other party. Now credit derivative grew popular both as tools for hedging credit risk exposure as well as method of investing in certain types of credit risk.

Credit derivative not only helps corporation and financial institution to manage their credit risk but also enabled a new set of individual retail client to invest in bonds and stocks that was previously unaffordable. Through credit derivative individual investor can invest indirectly in foreign bonds at a lower price. Credit derivative helps investor isolate credit and transfer it to other investor who are better suited to manage it or who finds the investment opportunity more interesting. There are many credit instruments in the market they are :

- Total return swap (TRS)
- Credit default swaps (CDS)
- Credit linked notes (CLN)
- Credit spread option (CSO)

According to the behavior of the asset or deal above credit instrument can be used and minimize the risk. In this way, credit derivative provide protection against credit peril and risk.

2.4 Review of Thesis

This dissertation has been written after studying various books, journals, article, website and previous thesis. Here, I comprise some of previous thesis review, which are mainly concerned about financial performance and fund mobilization policy, lending practices and investment policy, credit management and loan management of commercial bank.

Ojha (2002) in his dissertation about *"Lending Practices of Commercial Bank"* has written that the commercial banks have to expand their credit in the area of rural economy so as to compromise between the liquidity and credit need. This helps in minimizing the idle found in the business and at the same time contribute to the national economy. The banks should also increase the volume of credit in the sector of agriculture as the ratio of contribution made by the banks in this priority sector is decreasing.

Researcher has found out that following the normal guidance of Nepal Rastra Bank and acting upon it reduces credit risk arising from borrowers' defaulter, lack of proper credit appraisal, defaulter by blacklisted borrowers and professional defaulter. The over confidence of commercial banks regarding credit appraisal efficiency and negligence in taking information from Credit Information Bureau has caused many bad debts in these banks. He thinks that these banks have to follow the directives of NRB strictly and be more cautious and realistic while granting loans and advances.

The high volume of liquidity reveals that a degree of lending strength has been prevailing in all of the commercial banks. The lack of reliable lending opportunities and fear of losing the principle in rural sector has been keeping these banks less oriented towards the lending function. Hence, the government should take appropriate action to initiate these banks to attract to flow credit in rural economy. Posing the compulsions by directives does not create long-term healthy lending practices unless the commercial banks are not self-motivated to flow credit in this sector.

Joshi (2003), *"A Comparative Study on Financial Performance of Standard Chartered Bank Nepal Limited and Everest Bank Ltd"* states that the mean current ratio of EBL is slightly higher than that of the SCBNL and the variability of ratio of EBL is more consistence than SCBNL in comparison. The mean ratio of cash and bank balance to total deposit of SCBNL is lower in comparison to EBL. SCBNL has better liquidity position than EBL because of the high volume of liquidity indicated the inability of the bank to mobilize its current assets.

Moreover, the major findings of this thesis is that SCBNL's ratios are homogeneous than EBL and the mean ratio of cash and bank balance to current assets of SCBNL is lower in comparison to EBL. Similarly, SCBNL's ratios of the study period are more consistent than EBL. The mean ratio of loan and advances to total deposit of EBL is higher than SCBNL. The researcher has found that EBL used to provide greater loan and advance in comparison to its total deposit than SCBNL. Likewise, SCBNL's ratio seems to be variable than EBL. The mean ratio of investment on government securities to total working fund of SCBNL is higher than EBL. Consequently, it has consistency in maintaining the ratio than EBL. The mean ratio of return on loan and advances of SCBNL has found to be significantly greater than EBL with more consistency than that of EBL. The mean ratio of credit risk of SCBNL is lower than that of EBL's ratios are more consistent than that of SCBNL.

Growth ratio of deposit is of SCBNL is lower i.e. 19.28% in comparison to EBL i.e, 76.46%. The main statement of the problem of his research is that here the investment decision is the major tool of financial institution. There are many finance companies and commercial banks operating in Nepal. The fast growth of such organizations has made pro-rata increment in collecting deposits and their investment. They collected adequate amount from the mass however, they could not find or locate new investment sectors to mobilize their fund on the changing context of Nepal. Many banks or companies succumbed to liquidation although they had sustainable investment capacity. The increasing rate of liquidity has caused a downward trend in investment sectors. It has ensured bad impact on interest rate to the depositors, lower market value of shares etc. for the assessment of such adverse impact, this study has shown to contrast and analyses the investment policy of joint venture banks via. standard chartered bank Nepal Ltd and Everest bank limited.

The main objectives of this research is to compare investment policy of concern banks, to find out the empirical relationship among total investment, deposit, deposit utilization loan and advance, net profit and asset and comparison of SCBNL and EBL.

Regmi (2004), in the study Entitled *"Credit Management of Commercial Banks with reference to Nepal Bangladesh Bank and Bank of Kathmandu"* states that commercial banks are those banks, which works from commercial view point. They perform all kinds of banking functions such as, accepting deposits, advancing credits, credit creation and management of credit and advances. Portfolio management helps to minimize or manage the credit risks and spreading over the risks to various portfolios. Banks earn interest on credit and advances which is one of the major source of income for banks. On average 5 years of research period, cash and bank balance to total deposits of ratio of NB bank and BOK is 12.75% and 14.12% respectively. Likewise, NB bank has cash and bank balance 1.584 times of current deposits and BOK has cash and bank balance 1.14 times of current assets. In NB bank credit and advances almost upto 70% is provided with an assets guarantee. The assets guarantee credit is increasing period by period. After assets guarantee bank has provided credit based on bills guarantee credit which is 3421.3 millions (76.1% of total credit) and in the last period it was 3347.99 millions (58.2% of total credit).

The main statement of the problem of his research is that Nepal is a small country with small market. Economic condition of the country is degrading. Nepal being an agriculture country needs more investment in this sector. Nevertheless, commercial banks are rather concerned in industrial and foreign projects. As a result, the credit extended to this sector is unsatisfactory. Besides, they are not even fulfilling the NRB's regulation of 12% investment of their total loans to priority sectors like agriculture, cottage and small industries and services.

Similarly, the banks are not following the diversification principle i.e. they are not considering the investment portfolio position. A good portfolio theory indicates diversification of investable funds to reduce risks. Hence, the principle "do not put all the eggs in basket" really does not apply in context of Nepalese commercial banks. As a result, many banks today could not recover their loan because in the past, a major portion of their investment were made in garment, carpets and hotel sectors that now come to the brick of extinction.

The objective of this research is to analyze the functions, objectives, activities, credits and advances procedure and recovery status of the NB Bank and BOK.

Paudel (2005) in his Thesis *"A study on lending practices of joint venture commercial banks with reference to Nepal Bangladesh Bank Ltd (NBBL) and Himalayan Bank Ltd. (HBL)"* has made comparative study of these two banks in different lending aspects and strategies.

In his findings, the liquidity position of NBBL is comparatively better than HBL. The liquidity ratio of HBL is more stable and consistent than NBBL that indicates the stable policy of HBL. NBBL is found slightly better to be maintaining between assets and liabilities. NBBL has high loan and advances to total assets ratio, loan and advances to total deposit ratio, but HBL has high investment to total loans and advances and investment and total investment to total deposit ratio. He has concluded that NBBL is able to manage its assets to complete in this competitive banking business than HBL. As per his findings the liquidity position of NBBL is better hence, HBL is recommended to increase its liquidity position. He has suggested both banks to follow strictly the NRB directives, which will help them to reduce credit risk arising from borrowers' defaulter, lack of proper credit appraisal, defaulter by blacklisted borrowers and professional defaulter. Loan loss provision of both banks is in fluctuating trend. So, both banks are suggested to adopt sound credit collection policy which wills helps to decrease loan loss provision.

The main objective of his Thesis lending practices of joint venture commercial banks with reference to NBBL and HBL is investment criteria and sector, loan distribution and advance practice of joint venture bank. The limitation of the thesis was base on secondary data given by responded, five year's data and non-ending year's data.

Gurung (2006) explored in his research *"Lending Policy and Recovery Management of Standard Chartered Bank Nepal Ltd and NABIL Bank Limited"* that the deposit collection by the banks is increasing but in a fluctuating trend. The trend analysis of deposit collection shows that the increase in deposit collection in the forthcoming years will continue. Out of different types of deposit collection account, higher account has been collected in saving deposit account. Out of the total deposit collection, SCBNL has disbursed 36% of average as a loan and

NABIL has disbursed 52% of its deposit collection as a loan disbursement to deposit collection ratio of commercial banks, it is around 60%. Thus, this ratio is quite low in the case of sample bank especially of SCBNL. It is further proved by the calculation of correlation coefficient, which is 0.75 and 0.23 of SCBNL and NABIL respectively.

In order to analyze the recovery management of these banks, their loan loss provision and NPL were analyzed. Here, loan loss provision of SCBNL is in decreasing trend from 2002. The correlation coefficient of loan loss provision and loan disbursement of SCBNL is 0.36. While looking at he future trend of loan loss provision its shows the increasing trend in case of SCBNL and the trend of Loan loss provision is decreasing every year in case of NABIL, which is proved by the trend analysis. The correlation of loan loss provision and loan disbursement of NABIL is negative.

The main statement of his problem is that many banks are mushrooming although banks are not interested to expand their branch in remote rural area. There are difficulty and length formality of procedure for long term and medium term as well as short-term loan, Low deposit habit of Nepalese people and lack of strong recovery act of lending and bad debt.

The main objectives of the dissertation is to study loan and advance providing procedure of bank, lending and investment sector of bank, recovery condition of both SCBNL and NABIL bank.

Misra (2007) entitled her Thesis *“Credit management of Everest Bank Limited”* illustrate that liquidity position, cash reserve ratio shows the more liquidity position. Cash and bank balance to interest sensitive ratio shows that the bank is able to maintain good financial condition. Cash and bank balance to current assets ratio shows the bank's sound ability to meet the daily cash requirement of their customers' deposit. That is why liquidity position of the bank is the better.

In the aspect of profitability position, interest income to interest expenses ratio shows the more profitable salivation. In addition, total income to total expenses ratio shows the overall predominance of the bank is satisfactory operating income. Return on loan advances shows more profitable on the EBL. Analysis of the assets management ratio, loan advances to total assets ratio shows the better performance but loan and advances to total deposit position in minimum than the averages. Whereas, investment in loan and advances is safe and is not taking more risk. That is why, assets management position of the bank shows better performance in the latest year.

After analyzing the lending efficiency of the bank, the loan loss provision to loan advances indicator shows the better performance in the latest year. The interest expenses to total deposit ratios shows the improving efficiency of the bank. EBL bank has sufficient liquidity. It shows that bank has not got investment sectors to utilize their liquid money.

This is to recommend that Cash and bank balance of EBL bank is high. Banks efficiency should be increased to satisfy the demand of depositor as low level of cash and bank balance does not provide return to the bank. Therefore, some percentage of the cash and bank balance should be invested in profitable sectors. Bank should open their branches in the remote area with the objective to provide the banking services.

The main objective of this study is to evaluate the credit management of Everest Bank Limited. Besides, there may be other objectives as well for example to examine the impact of deposit in liquidity, loan management procedure, asset management and lending efficiency of the Everest Bank Limited.

Limbu (2008) in his dissertation *"Credit Management with special reference to Nepal SBI Bank Ltd"* illustrates that lending is one of the most important function of a commercial bank and composition of loan and advances directly affects the performance and profitability of the bank. There is intense competition in banking business with limited market and less investment opportunities available. Every bank is facing the problem of default loan and there is always possibility of a certain portion of the loan and advances, profitability deposits position. In this thesis Nepal SBI Bank Limited is analyzed and its contribution in total profitability has been measured.

Here, he have stated that the credit management is the essence of Commercial banking and it is the main statement of the problem of his study. Consequently, the formulation and implementation of sound Credit policies are among the most important responsibilities of bank directors and management. Well-conceived credit policies and careful credit practice are essential if a bank has to perform its credit creating function effectively and minimize the risk inherent in any extension of credit. Credit management effects on the company's profitability and liquidity so, it is one of the crucial decisions for every commercial banks.

Measuring the credit performance in quality, efficiency and contribution of profitability, liquidity position and its effect on credit performance, the growth rate and propensity of growth based on trend analysis are the main objective of his dissertation.

Shrestha (2009) in her dissertation *"Credit Management of NABIL Bank Limited"* highlighted that aggregate performance and condition of the Nabil bank. In the aspect of liquidity position, cash and bank balance reserve ratio shows the more liquidity position. Cash and bank balance to total deposit has fluctuating trend in 5 years study period. Cash and bank balance to current deposit is also fluctuating. The average mean of Cash and bank balance to interest sensitive ratio is able to maintain good financial condition.

In the aspect of assets management ratio, assets management position of the bank shows better performance in the recent years. Non–performing assets to total assets ratio is decreasing trend. The bank is able to obtain higher lending opportunity during the study period. Therefore, credit management is in good position of the bank. In leverage ratio, Debt to equity ratio is in an increasing trend. High total debt to total assets ratio posses higher financial risk and vice versa.

It represents good condition of total assets to net worth ratio. In the aspect of profitability position, total net profit to gross income, the total interest income to total income ratio of bank is in increasing trend. The study shows little high earning capacity of NABIL through loan and advances. Earning per share and the Price earning ratio of NABIL is in increasing trend. These means better profitability in the coming years. It also represents high expectation of company in market and high demand of share. Loan loss provision to total loan and advances ratio and non-performing loan to total loan and advance ratio of NABIL is in decreasing trend. The ratio is continuously decreasing this indicates bank increasing performance. Thus, credit management is in a good position.

The main objective of the research study is to evaluate various financial ratio of the NABIL Bank, to analyze the portfolio of lending of selected sector of banks, to determine the impact of deposit in liquidity and its effect on lending practices and to offer suitable suggestions based on findings of this study.

In the statistical tools analysis average mean, correlation analysis and trend analysis have been calculated. Correlation coefficient between total credit and total assets shows high degree of positive correlation. Correlation coefficient between total deposit and loan & advances has high degree of positive correlation which concludes that increasing total deposit will have positive impact towards loan & advances.

Research Gap

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make this study meaningful and purposeful. There are various researches conduct on lending practice, credit policy, financial performance and credit management of various commercial banks. Some of the researches have been done on the basis of financial performance and credit policy between two or three different commercial bank. In order to perform those analyses, researchers have used various ratio analysis. Actually, credit management is determined by various factors. In this research various ratio are systematically analyzed and generalized. Past Researchers has not properly analyzed about lending and its impact on the profitability. Here, in those researches all ratios are categorized according to their area and nature.

Instead, the study of "Credit management of Nepal Investment Bank Limited" has measured the credit terms by various ratios, trend analysis and various statistical tools as well financial tools are used for analyzing survey data. Since, the researcher has used data of five fiscal year but all the data are current and fact. The study have clarify those issue in Nepalese commercial bank which the previous scholar could not the present facts. Thesis of Limbu (2008**)** “Credit management with special reference to Nepal SBI Bank Ltd” has not use correlation, probable error and trend analysis although using various statistical tools. Shrestha (2009)

“Credit management of NABIL Bank Limited” has not been done using all financial as well as statistical tools. But the current study has tried to define credit management by applying and analyzing various financial tools like liquidity ratio, leverage ratio, profitability ratio and lending efficiency ratio as well as different statistical tools like coefficient of correlation and trend analysis. Probably, this will be the appropriate research in the area of credit management of bank and other financial institutions.

CHAPTER - III
RESEARCH METHODOLOGY

The topic of the study has been selected as "Credit management of Nepal Investment Bank limited." In order to reach and accomplish the objectives of the study, different activities will be carried out. For this purpose, the chapter aims to present and reflect the methods and techniques that are carried out and followed during the study period. The research methodology that is adopted for the present study is mentioned in this chapter which deals with the research design, sources of data, data collection, processing and tabulating procedure and methodology.

3.1 Research Design

A research design is a plan for the collection and analysis of data. It presents a series of guide posts which enable the researcher to progress in the right direction in order to achieve the goal. The Present study follows the descriptive as well as exploratory design to meet the stated objectives of the study. The research design then focuses on the data-collection methods, the research instruments utilized and the sampling plan to be followed. Specifically, research design describes the general plan for collecting, analyzing and evaluating data after identification.

3.2 Sources of Data

The research is based on primary as well as secondary sources of data even though most of the adequate data are collected from secondary sources.

3.2.1 Primary Source

Primary data collection is done by making questionnaire and distributed to the credit department of the concerned banks and also to the clients of the bank.

3.2.2 Secondary Source

Secondary data are mostly used for this research purpose. The major sources of secondary data are as follows:

- Annual Report of Nepal Investment bank
- NRB directives.
- Economy survey of Government of Nepal and Ministry of finance.
- Newspapers, journals, articles and various magazines.
- Dissertation of Central Library of T. U. and Library of Shanker Dev Campus.

3.3 Population and Sample

Population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate. A small portion chosen form the population for studying its properties is called sample. The researcher cannot normally survey everyone in the population so a small part of the total population is taken to represent the total population. Hence, a sample is a collection of items or elements from a population or universe. The method of selecting a small portion of the population to draw conclusion about characteristics of the population is known as sampling. Sampling may be defined as the selection on part of the population on the basis of which a judgment or inference about the universe is made *(Sharma and Chaudhary; 2058:171-173).*

Here, the total 30 commercial banks shall constitute the population of the data and single bank under the study constitutes the sample under the study. So, among the various commercial banks in the banking industry, Nepal Investment Bank Limited has been selected for the present study. Likewise, financial statements of five years (beginning from 2004/05 to 2008/09) are selected as samples for its purpose.

3.4 Data Collection Procedure

Specially, the annual report of Nepal Investment bank limited and the website of concern bank limited are taken as main source of data collection for purpose of study. NRB publication such as economic report and bulletin, banking and financial statistics, annual report of NRB etc., other main source is website of NRB and web site of Nepal share market. Most of the data and substance are obtain from above sources.

3.5 Method of Data Analysis Technique

For the purpose of the study, all collected primary as well as secondary data are arranged, tabulated under various heads then after disunities and statistical analysis have been carried out to enlighten the study. Mainly, financial methods are applied for the purpose of this study. Appropriate statistical tools are also used. To make the study more specific and reliable, the researcher uses two types of tool for analysis:

- Financial Analysis
- Statistical Analysis

3.5.1 Financial Tools

Stakeholders of a business firm perform several types of analyses on a bank that is financial statements. All of these analyses deal on comparisons or relationship of data that enhance the utility or practical value of accounting information.

3.5.1.1 Ratio Analysis

A ratio is simply one number expressed in term of another as such it express the quantitative relationship between any two numbers. Ratio refers to the numerical or quantitative relationship between two items/variables. A ratio is calculated by dividing one item of relationship with the other. A ratio can be expressed in term of percentage, proportion and as a coefficient. A ratio is a figure or a percentage representing the comparison of two variables or any substances.

The relationship between two accounting figure, expressed mathematically is known as financial ratio. The technique of ratio analysis is part of the whole process of analysis of financial statement of any business and industrial company specially to obtain output and credit decision. It is defined as the systematic use of ratio to interpret the financial statements so that the strength and weakness of a firm as well as its historical performance and current financial condition can be determined. Thus, ratio analysis is useful to evaluate, judgment and taking appropriate decision.

A. Liquidity Ratio

Liquidity means the ability of a firm to meet its short-term or current obligations. Liquidity ratios are used to measure the ability of a firm to meet its short-term obligations and the present cash solvency as well as ability to remain in debt. It is not good having excess liquidity and low liquidity in any organization. Inadequate liquidity can lead to unexpected cash short falls and reduce profitability as well as inadequate liquidity can lead to the liquidity insolvency of the institution. On the other hand, excessive liquidity can lead to low asset yields and contribute to poor earnings performance. To find -out the ability of bank or financial institution, following ratios are analyzed and finding out liquidity ratios to identify the liquidity position.

i. Cash and Bank Balance to Total Deposit Ratio

It is also known as Cash reserve ratio. This ratio shows the ability of banks immediate funds to cover their deposit. Higher the ratio shows higher liquidity position and ability to cover the deposits and vice versa. Total deposit includes current deposit saving, fixed deposit, call short deposit, and other types of deposit. This ratio can be calculated using the following formula.

$$\text{Cash and Bank Balance to Total Deposit Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

ii. Cash and Bank Balance to Current Assets Ratio

Cash and bank balance are the liquid current assets. This ratio measures the percentage of liquid fund with the current assets. Higher ratio indicates the banks sound ability to meet the daily cash requirement of their customers' deposit. So, bank has to maintain cash and bank balance to current assets ratio properly.

$$\text{Cash and Bank Balance to Current Assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

iii. Cash and Bank Balance to Interest Sensitive Deposit Ratio

Saving deposit is deposited by public in a bank with objectives of increasing their wealth.

Interest rate plays important role in the flow of interest sensitive deposit. Fixed and current deposits are not interest sensitive. Fixed deposits have a fixed term to maturity and Current deposits are not sensitive toward interest rate. The ratio of cash and bank balance to interest sensitive deposits measure the bank ability to meets its sudden out flow of interest sensitive deposits to the change interest rate.

Cash and Bank Balance to Interest Sensitive Deposit Ratio

$$= \frac{\text{Cash and Bank Balance}}{\text{Sensitive Deposit}}$$

B. Activity Ratio

It is also known as efficiency turnover ratio or assets management ratio. Its measures how efficiently the firm utilize the assets? Turnover means how much number of times the assets flow through a firm's operations and into sales. Greater rate of turnover or conversion indicates more efficiency of a firm in managing and utilizing its assets being other things equal. Various ratios are as follows:

i. Credits Advances to Fixed Deposit Ratio

Fixed deposits are the long-term interest bearing obligations and credit and advances is the major sources of investment to generate the income by the commercial banks. This ratio measures how many times the amount is used in credits and advances in comparison to fixed deposit for the income generating purpose. The ratio is slightly differ with the former one, because it only includes the fixed deposits, where as the former one includes all the deposits. The following formula is used to obtain this ratio.

$$\text{Credit and Advances to Fixed Deposit Ratio} = \frac{\text{Credit and Advances}}{\text{Fixed Deposits}}$$

ii. Credit and Advances to Total Deposits Ratio

It is also known as loan and advance to total deposit ratio. Commercial banks utilize the outsider's fund for profit generation purpose. Credit and advances to deposit ratio shows whether the banks are successful to utilize the outsiders funds (i.e. total deposits) for the profit generating purpose on the credit and advances or not. Generally, a high ratio reflects higher efficiency to utilize outsider's fund and vice-versa. The ratio can be calculated by using following formula.

$$\text{Credit and Advances to Total Deposits Ratio} = \frac{\text{Credit and Advances}}{\text{Total Deposits}}$$

iii. Credit and Advances to Total Assets Ratio

It measures the ability in mobilizing total assets into credit and advances for profit generating income. A higher ratio is considered as an adequate symbol for effective utilization of total assets of bank into credit and advances which creates opportunity to earn more and more. It is calculated as:

$$\text{Credit and Advances to Total Assets Ratio} = \frac{\text{Credit and Advances}}{\text{Total Assets}}$$

iv. Non-Performing Assets to Total Assets Ratio

This ratio shows the relationship of Non-Performing assets and total assets. This ratio represents the proportion between the non-performing assets and total assets of bank. It shows how much assets is non – performing or idle in the total assets of bank. Higher NPA to total assets ratio indicates the worst performance, which reduces the profitability of bank. Higher ratio shows the low efficient operating of the credit management and lower ratio shows the more efficient operating of credit management.

$$\text{Non-performing Assets to Total Assets Ratio} = \frac{\text{Non-performing Assets}}{\text{Total Assets}}$$

C. Leverage Ratio

It is also known as capital structure ratio. Leverage ratio helps to test long term solvency position of the firm. It informs us the relationship of long-term debt with total capital or shareholder fund. The use of finance is referred by financial leverage. These ratios are also called solvency ratio or capital structure ratio. These ratios indicate mix of funds provided by owners and lenders. To judge the long-term financial position of the firm, leverage ratios are calculated. This ratio highlights the long-term financial health, debt servicing capacity and strength and weaknesses of the firm. Following ratios are included under leverage ratios.

i. Total Debt to Equity Ratio

It shows the relationship between debt and equity. Total debt to equity ratio measures the relative proportion of outsiders and owner's funds employed in the total capitalization. Here, total debt includes total deposits, bills payable and other liabilities of the bank and equity includes paid up capital, retained earning and reserves. The formula used to determine the ratio is:

Total Debt = Long Term Debt + Current Liabilities

$$\text{Total Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Equity}}$$

ii. Total Debt to Total Assets Ratio

It examines the relationship between borrowed funds (i.e. total debt) and total assets. It shows the relative extent to which the firm is using borrowed money. A lower ratio is preferable since it reduces the distress of the creditors by using more amount of equity on total assets. Total debt includes both current liabilities and long term debt. Creditors prefer low debt ratios because the lower the ratio, the greater the cushion against creditors losses in the event of liquidation. Stockholders on the other hand, may want more leverage because it magnifies expected earnings. It is computed as:

$$\text{Total Debt to Total Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

iii. Total Assets to Book Net Worth Ratio

The ratio is calculated to find out the proportion of owner's fund to finance for the total assets. Total Assets comprises of the total value of the assets side of balance sheet where as net worth is the sum of the share capital plus reverses and retained of the bank. It is calculated to see the amount of assets financed by net worth.

$$\text{Total Assets to Total Book Net Worth Ratio} = \frac{\text{Total Assets}}{\text{Total Book Net Worth}}$$

D. Profitability Ratio

This ratio shows the profitability conditions of the bank. Profit is essential for the survival of bank so, it is regarded as the engine that drives the banking business and indicates economic progress. Profitability ratios are calculated to measure the management ability regarding how well they have utilized their funds. Lending is one of the major functions of commercial bank, so following are the various types of ratios which involves in the contribution of loan and advances in profit and help the investor to know whether to invest in particular firm or not.

i. Net Profit to Gross Income Ratio

The ratio measures the position of profitability of the company to total income. This shows the sound and weakness of the company to utilize its resources. Higher ratio shows the higher efficiency of management and lower ratio shows the lower efficiency of the management. The formula of net Profit to Gross income ratio is

$$\text{Net Profit to Gross Income Ratio} = \frac{\text{Net Profit}}{\text{Gross Income}}$$

ii. Interest Income to Total Income Ratio

The ratio measures the volume of interest income to total income. The high ratio indicated the banks performance on other cost -based activities. The high ratio indicates the high contribution made by lending and investing activities.

$$\text{Interest Income to Total Income Ratio} = \frac{\text{Interest Income}}{\text{Total Income}}$$

iii. Operating Profit to Loan and Advances Ratio

Operating profit to loan and advances ratio measure the earning capacity of commercial bank. Operating profit to loan and advances ratio is calculated by dividing operating profit by loan and advances.

$$\text{Operating Profit to Loan and Advances Ratio} = \frac{\text{Operating Profit}}{\text{Loan and Advances}}$$

iv. Return on Loan and Advances Ratio

This ratio measures the earning capacity of the commercial bank through its fund mobilization as loan and advances. Higher ratio indicated greater success to mobilize fund as loan and advances and vice versa. Mostly, loan and advances includes cash, credit, bank overdraft, bills purchased and discounted.

$$\text{Return on Loan and Advances} = \frac{\text{Net Profit}}{\text{Loan and Advances}}$$

v. Net Profit to Total Assets

This ratio shows the relationship of Net profit and total assets and determines how efficiently the total assets have been used by the management. This ratio indicates the ability of generating profit per rupees of total assets. It also evaluates the present return on the total assets and guide for return expected on future purchase of assets. Higher the ratio shows the more efficient operating of management and lower the ratio shows the low efficient operating of management. This ratio is computed by :

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

vi. Earning per Share (EPS)

Earning per share measures the profit available to the cash equity holders. It only measures the overall operational efficiency of the bank. It is the profit tax figure. EPS tells us what profit the common share holder get for every share.

$$\text{Earning Per Share} = \frac{\text{Profit After Tax}}{\text{No. of Common Share}}$$

vii. Price Earning Ratio

This ratio shows the relationship between earning per share and market value per share. This ratio measures the profitability of the firm. Higher ratio shows the higher efficiency of the management and lower ratio shows the lower efficiency of the management. The ratio is computed by-

$$\text{Price Earning Ratio (PE Ratio)} = \frac{\text{Market Value Per Share}}{\text{Earning Per Share}}$$

E. Lending Efficiency Ratio

This ratio is concerned with measuring the efficiency of bank. This ratio also shows the utility of available fund. Following are the various types of lending efficiency ratio.

i. Loan Loss Provision to Total Loan and Advances Ratio

Loan loss provision to total loan and advances describes the quality assets that a bank holding. The provision for loan loss reflects the increasing probability of non-performing loan. The provision of loan mean the net profit of the banks will come down by such amount. Increase in loan loss provision decreases in profit, result to decreases in dividends. But its positive impact is that it strengthens financial conditions of the bank by controlling the credit risk and reduced the risks related deposits. So, it can be said that the loan and advances suffer it only for short term while the good financial conditions and safety of loans will make banks prosperity thus, regulates to increase in profits for long term. The low ratio indicates the good quality of assets in total volume of loan and advances. High ratio indicates more risky assets in total volume of loan advances.

$$\text{Loan Loss Provision to Total Loan and Advances} = \frac{\text{Loan Loss Provision}}{\text{Total Loan and Advances}}$$

ii. Non-Performing Loan to Total Loan and Advances

This ratio shows the relationship of Non-Performing loan and total loan and advances to determine how efficiently management has used the total loan and advances. Higher ratio shows the low efficient operating of the management and lower ratio shows the more efficient operating of credit management.

$$\text{Non-performing Loan to Total Loan and Advances} = \frac{\text{Non-performing Loan}}{\text{Total Loan and Advances}}$$

iii. Interest Expenses to Total Deposit Ratio

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

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

3.5.2 Statistical Tools

For supporting the study, statistical tool such as Mean, Standard Deviation, Coefficient of Variation, Correlation and diagrammatic cum pictorial tools have been used under it.

Arithmetic Means (Average)

Arithmetic mean also called "mean" or "average" is the most popular and widely used measure of central tendency. Arithmetic Mean is statistical constants which enables us to comprehend in a single effort of the whole. Arithmetic mean represents the entire data by a single value. It provides the idea and gives the bird's eye view of the huge mass of a widely numerical data. It is calculated as:

$$\overline{X} = \frac{1}{n} \sum_{i=1}^{n} X_i$$

Where,

$\overline{X}$ = mean value or arithmetic mean

$\sum_{i=1}^{n} X_i$ = sum of the observation

N = number of observation

Correlation Coefficient (r)

Correlation may be defined as the degree of linear relationship existing between two or more variables. These variables are said to be correlated when the change in the value of one results change in another variable. Correlation is categorized into three types. They are Simple, Partial and Multiple correlations. Correlation may be positive, negative or zero. Correlation can be classified as linear or non-linear. Here, only simple correlation has been studied. In simple, correlation the effect of others is not included rather these are taken as constant, considering them to have no serious effect on the dependent.

Formula,

$$rX_1X_2 = \frac{N\Sigma X_1X_2 - (\Sigma X_1)(\Sigma X_2)}{\sqrt{[N\Sigma X_1{}^2 - \Sigma(X_1)^2]}\ \sqrt{[N\Sigma X_2{}^2\Sigma(X_2)^2]}}$$

Whereas,

r $\mathbf{X_1X_2}$ = Correlation between X_1 and X_2

NΣ X_1X_2 =No. of Product observation and Sum of product $\mathbf{X_1}$ and $\mathbf{X_2}$

$\mathbf{\Sigma X_1 \Sigma X_2}$ = Sum of Product $\mathbf{X_1}$ and sum of Product $\mathbf{X_2}$

i. Coefficient of Variation (C.V.)

The coefficient of variation measures the relative measures of dispersion hence, capable to compare two variables independently in term of variability.

$$\text{C.V.} = \frac{\sigma}{x}$$

Where,

σ = Standard deviation

x = sum of the observation

ii. Probable Error

The probable error of the coefficient of correlation helps in interpreting its value. With the help of probable error, it is possible to determine the reliability of the value of the coefficient so far as it depends on the conditions of random sampling. The probable error of the coefficient of correlation is obtained as follows:

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

Here,

r = Correlation Coefficient

N = Number of pairs of observations

If the value of "r" is less than the probable error, there is no evidence of correlation, i.e., the value of "r" is not at all significant. Then, if the value of "r" is more than six times of the probable error, the coefficient of correlation is practically certain, i.e., the value of "r" is significant.

Times Series Analysis

Time series is used to measure the change of financial, economical as well as commercial data. The least square method to trend analysis has been used in measuring the trend analysis. This method is widely used in practice. The straight line trend of a series of data is represented by the following formula:

$$Y = a + bx$$

Here,

'Y' is the dependent variable

'a' is y intercept or value of 'y' when x = 0,

b is the slope of the trend line or amount of change that comes in 'y' for a unit change in 'x'.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter needs the analysis, presentation, interpretation and major finding of relevant data of Nepal Investment Bank Ltd. in order to fulfill the objectives of research study. To obtain better result, the data have been analyzed according to the research methodology as mentioned in third chapter. The purpose of this chapter is to introduce the mechanics of data analysis and interpretation. With the help of this analysis, efforts have been made to highlight credit management of Nepal Investment Bank Ltd as well as other cases or problems. For analysis, different types of analytical methods and tools such as financial ratio analysis as well as statistical analysis are used. This chapter deals with the various aspects of credit management such as financial ratios, impact of deposit in liquidity, priority sector lending, lending efficiency, correlation and trend analysis.

4.2 Financial Statement Analysis

Financial analysis is done by applying various financial tools in order to clear picture on the viability of the project. The financial analysis is done to ascertain the liquidity, profitability, leverage, debt servicing and interest servicing ability of the firm. The concept of financial statement analysis has been already discussed in previous chapter.

Here, we study and analyze the data by using accounting tools.

4.2.1. Liquidity Ratio

Liquidity refers to the ability of a firm to meet its short- term or current obligations. So liquidity ratios are used to measure the ability of a firm to meet its short-term obligations.

Inadequate liquidity can lead to unexpected cash short falls that must be covered at excessive costs reducing profitability. In the worst case, inadequate liquidity can lead to the liquidity insolvency of the institution. To find -out the ability of the bank to meet their short-term obligations, which are likely to mature in the short period, the following ratios are developed under the liquidity ratios to identify the liquidity position.

i) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance to total deposit ratio shows the percentage relationship between cash and bank to total deposit. It means the availability of liquid balance in respect to total deposit of the bank. Whereas, difference between the cash and bank balance to total deposit is known as the investment of the bank. The reserve requirement below 10% of deposit liabilities is noted as fully liberalized, 10%-15% as largely liberalized, 15%-25% as partially repressed and above 25% as completely reserved, it is ranked by 3, 2, 1 and 0 respectively. The ratio calculations are as follows:

$$\text{Cash and Bank Balance to Total Deposit} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

Table 4.1

Cash and Bank Balance to Total Deposit Ratio

(Amount in million)

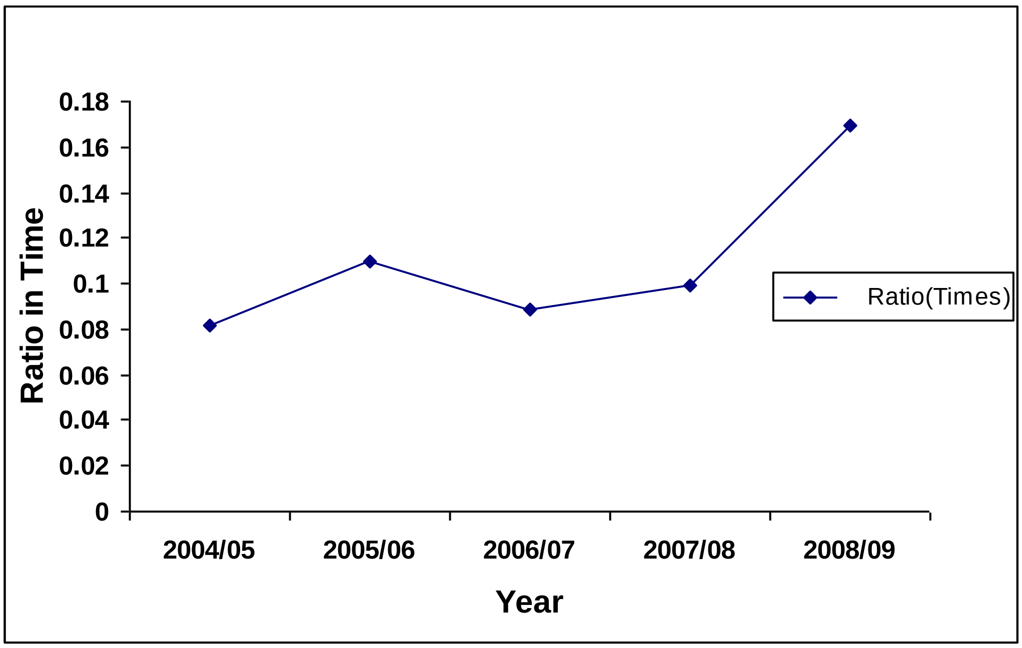
Year	Cash and Bank Balance	Total Deposit	Ratio(Times)
2004/05	1340.48	16390.65	0.0818
2005/06	2335.52	21330.14	0.1095
2006/07	2441.51	27590.84	0.0885
2007/08	3754.94	38873.00	0.0996
2008/09	7917.99	46698.00	0.1695
Mean			**0.1044**

Source: Annual Report of Nepal Investment Bank

The above table shows that cash and bank balance to total deposit ratio of NIBL is in fluctuating trend. The ratios are 0.0818, 0.1095, 0.0885, 0.0966 and 0.1428 respectively. The average mean ratio is 0.1044 times in the study period. The highest ratio is 0.1428 times in year 2008/9 and the lowest ratio 0.08186 times in year 2004/5. These all ratio shows that the bank is maintaining the good liquidity position. From this it is clear that the bank is efficient in utilizing the resources. Cash & bank balance to total deposit ratio is shown in the following graph.

Figure 4.1

Cash and Bank Balance to Total Deposit Ratio



ii) Cash and Bank Balance to Current Deposit Ratio

This ratio shows the relations between Cash & Bank balance to Current deposit. Cash and bank balance is aggregate outcome of deposit of customers' plus other income and reserves of the bank. Bank is responsible to pay on customers' demand at any time. So, cash & bank balance to current deposit ratio is very important factor that illustrate whether bank is capable to pay as per customer's demand. The ratio between Cash and Bank to Current deposit are as follows:

$$\text{Cash and Bank Balance to Current Deposit} = = \frac{\text{Cash and Bank Balance}}{\text{Current Deposit}}$$

Table 4.2

Cash and Bank Balance to Current Deposit Ratio

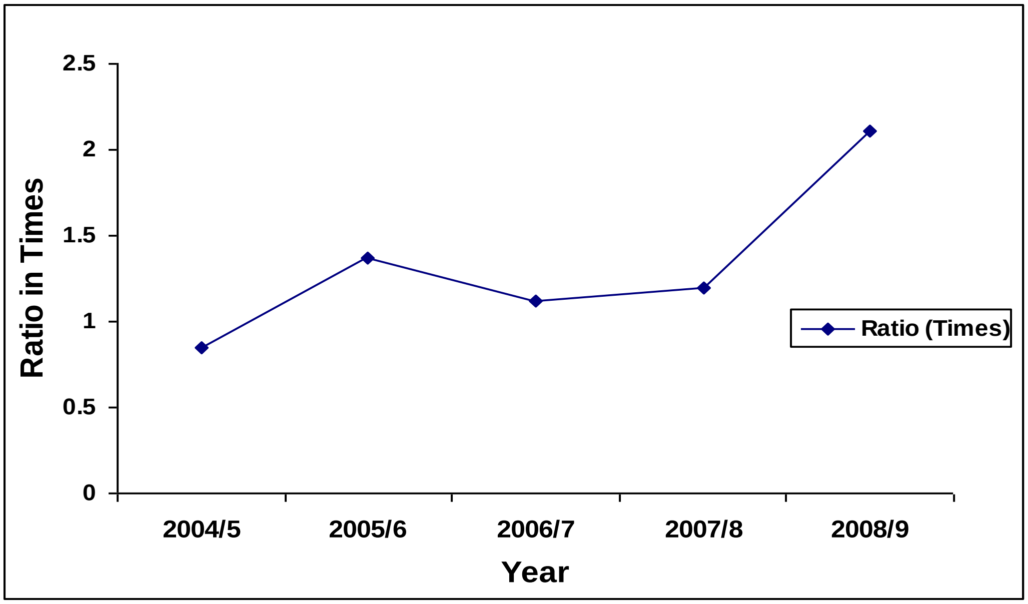
(Amount in Million)

Year	Cash and Bank Balance	Current Deposit	Ratio (Times)
2004/5	1340.48	1583.00	0.8470
2005/6	2335.52	1705.70	1.3690
2006/7	2441.51	2175.00	1.1220
2007/8	3754.94	3139.00	1.1960
2008/9	7917.99	3756.57	2.1077
Mean			**1.3283**

Source: Annual Report of Nepal Investment Bank

Above table shows the calculation of Cash and Bank balance to Current Deposit of NIBL. The ratios are 0.847, 1.369, 1.122, 1.196 and 2.1077 times respectively from the first year to last year of the research period. The mean average calculation is 1.323 times during the research period. It means cash and bank balance is sufficient to meet the demand of the depositors. Here, the Cash and Bank Balance to Current Deposit has highly increased in the current year 2008/9 due to the increase in Cash and Bank balance From this, it is clear that NIBL is maintaining more cash and bank balance to meet the current depositor's demand.

Figure 4.2
Cash and Bank Balance to Current Deposit Ratio



iii) Cash and Bank Balance to Interest Sensitive Deposit Ratio

The ratio of cash and bank balance to interest sensitive deposits measures the ability to meet its sudden outflow of interest sensitive deposits due to the change in interest rate. The ratio calculations are as follows:

Cash and Bank Balance to Interest Sensitive Deposit Ratio

$$= \frac{\text{Cash and Bank Balance}}{\text{Interest Sensitive Deposit}}$$

Table 4.3

Cash and Bank Balance to Interest Sensitive Deposit Ratio

(Amount in million)

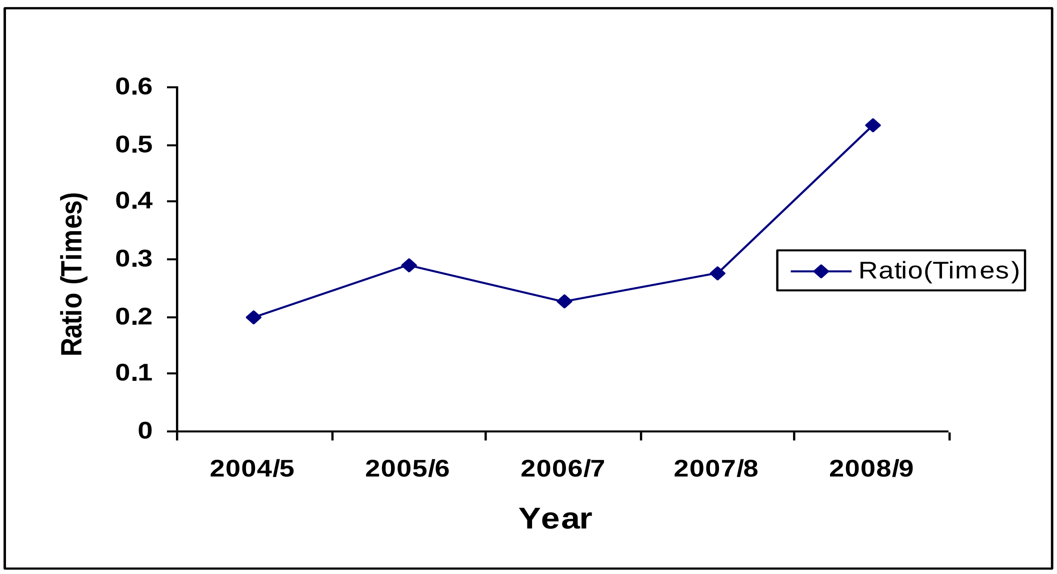
Year	Cash and Bank Balance	Sensitive Deposit	Ratio(Times)
2004/5	1340.48	6703	0.1990
2005/6	2335.52	8082	0.2890
2006/7	2441.51	10742	0.2270
2007/8	3754.94	13689	0.2740
2008/9	7197.99	13514	0.5326
Mean			**1.5216**

Source: Annual Report of Nepal Investment Bank

Table 4.3 shows that the cash and bank balance to interest sensitive ratio of NIBL is in fluctuating trend. The ratios are 0.199, 0.289, 0.227, 0.274 and 0.5326 respectively accordingly to the consecutive year. The mean ratio is 1.5216 times. This means that the bank is able to maintain this ratio in the good financial condition. The highest ratio is 0.5326 times in the year 2008/9 and lowest ratio of 0.2270 times in the year 2006/7. In the year 2008/9 the bank has mobilized cash and Bank balance to interest sensitive deposit by 0.5326 therefore' it can easily meet sensitive depositors' demand. Cash, bank balance and interest sensitive deposit are presented following diagram.

Figure 4.3

Cash and Bank Balance to Interest Sensitive Deposit Ratio



4.2.2 Assets Management Ratio

Asset management refers to manage or utilization of all asset. It is also known as turnover or efficiency ratio or assets management ratio. It measures how efficiently the firm employs the assets. Turnover means number of times the assets flow through a firm's operations and into sales Greater rate of turnover or conversion indicates more efficiency of a firm in managing and utilizing its assets, being other things equal. There are some ratios examined as under:

i) Credit and Advances to Fixed Deposit Ratio

Credit and advances clearly states that it is the assets of the bank and fixed deposit refers to the liability. Credit and advance to fixed deposit ratio is also known as loan and advance ratio. So, this is the ratio between assets and liability. This helps to show the ratio of Loan & advances to the fixed deposit. From this ratio we can also know that what part of the credit and advances is initiated against fixed deposit.

$$\text{Credit and Advances to Fixed Deposit Ratio} = \frac{\text{Credit and Advances}}{\text{Fixed Deposits}}$$

Table 4.4

Credit and Advances to Fixed Deposit Ratio

(Amount in million)

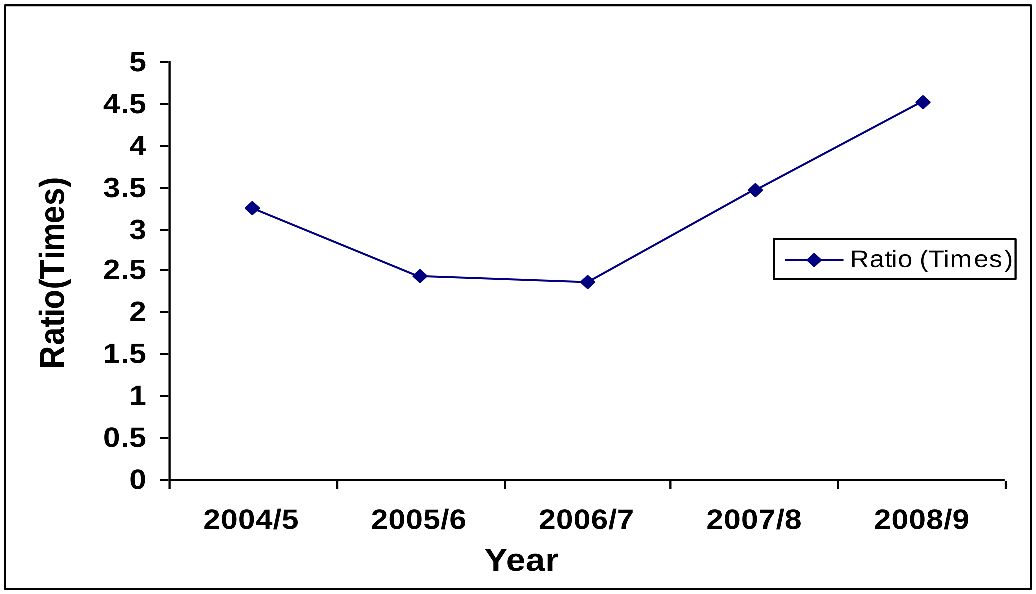
Year	Credit and Advances	Fixed Deposit	Ratio (Times)
2004/5	10453	3212	3.2540
2005/6	13178	5413	2.4340
2006/7	17769	7517	2.3640
2007/8	27529	7944	3.4650
2008/9	36827	8145	4.5214
Mean			**3.2062**

Source: Annual Report of Nepal Investment Bank

The above table visualized that credit and advances to fixed deposits ratio are in increasing trend. The credit and advances to fixed deposit ratio of NIBL Bank in 2004/5 was 3.2540 which is increased upto 4.5214 in the year 2008/9. The mean average is 3.2062 times during the research period which refers NIBL there is able to maintain credit and advances according to its fixed deposit. Credit and advance to fixed deposit ratio is represented in figure as follow.

Figure 4.4

Credit and Advances to Fixed Deposit Ratio



ii) Credit and Advances to Total Deposit Ratio

Credit and advances is the investing activities of the bank and total deposit is the deposit amount of the bank collected from its customers or depositor as a whole. Here, we are trying to find out the ratio between credit & advances to total deposit. This ratio measures the extent to which the bank is successful to manage its total deposit on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of collected deposit and vice-versa. However, it should be noted that too high ratio might not be better from liquidity point of view.

$$\text{Credits and Advances to Total Deposits Ratio} = \frac{\text{Credit and Advances}}{\text{Total Deposits}}$$

Table 4.5

Credit and Advances to Total Deposit Ratio

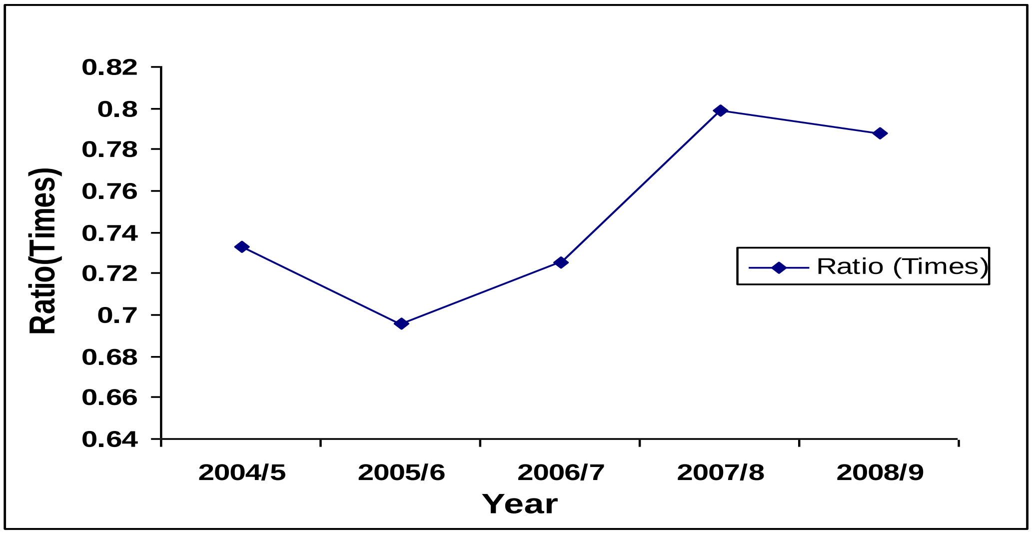
(Amount in million)

Year	Credit and Advances	Total Deposit	Ratio (Times)
2004/5	10453	14255	0.7330
2005/6	13178	18927	0.6960
2006/7	17769	24489	0.7250
2007/8	27529	34452	0.7990
2008/9	36827	46698	0.7880
Mean			**0.7482**

Source: Annual Report of Nepal Investment Bank

Above table shows that the total loan advances to total deposit ratio of NIBL is in variable trend. The highest ratio is 0.7990 times in year 2007/8 and lowest ratio 0.6960 times in year 2005/6. The average mean ratio of NIBL is 0.7482 times in the study period. This means the bank is competent in proper mobilization of collected deposit. According to NRB directives above 70% to 90% of loan and advances to total deposit ratio refers to have better mobilization of collected deposit. So all of the year the bank has tries to meet the NRB requirement or it has utilized its deposit to provide loan. This means that credit management of the bank is in good position. Loan, advances and total deposit are presented in the line diagram.

Figure 4.5
Credit and Advances to Total Deposit Ratio



iii. Credit and Advances to Total Assets Ratio

Credit and Advances to Total Assets Ratio is determined to find out the relationship between credit & advances to total assets. Credit and advances is the part of total assets. This ratio helps to find out the proportion of credit and advances to the total assets.

$$\text{Credit and Advances to Total Assets Ratio} = \frac{\text{Credit and Advances}}{\text{Total Assets}}$$

Table 4.6

Credit and Advances to Total Assets Ratio

(Amount in million)

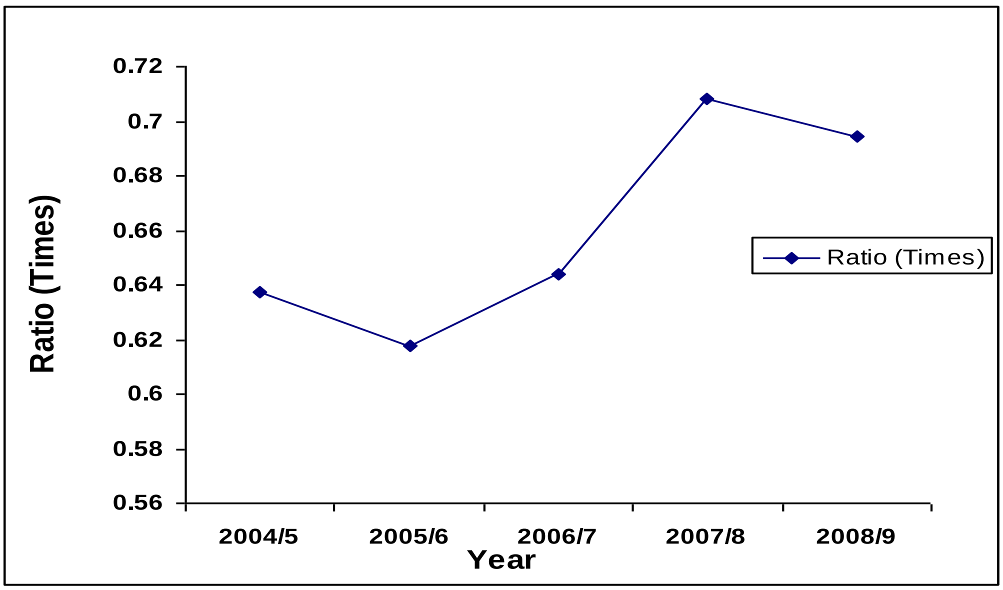
Year	Credit and Advances	Total Assets	Ratio (Times)
2004/5	10453	16391	0.6377
2005/6	13178	21330	0.6178
2006/7	17769	27591	0.6440
2007/8	27529	38873	0.7082
2008/9	36827	53010	0.6947
Mean			**0.6605**

Source: Annual Report of Nepal Investment Bank

From the above table we can know that NIBL bank has generally varied trends of Credit and Advances to Total Assets ratio under the study period. The ratios are 0.6377, 0.6178, 0.6440, 0.7082 and 0.6947 in their respective year. The highest ratio is 0.7082 in the year 2008 and the lowest ratio is 0.6178 in the year 2004/5. The average mean ratio is 0.6605.It explains that bank has capability in utilizing total assets in the form of credit and advances. There is consistency in the utilization of assets in the form of credit and advance because the fluctuation of the ratio is minimal. Loan and advances to total assets ratio is represented in figure as follows:

Figure 4.6

Credit and Advances to Total Assets Ratio



iv) Non-Performing Assets to Total Assets Ratio

Non-performing Assets to total assets ratio measures lending opportunity of the bank. Lower non-performing assets ratio is good and higher the ratio is bad for all financial institutions. The ratio calculations are as follows:

$$\text{Non-performing Assets to Total Assets Ratio} = \frac{\text{Non-performing Assets}}{\text{Total Assets}}$$

Table 4.7

Non-performing Assets to Total Assets Ratio

(Amount in million)

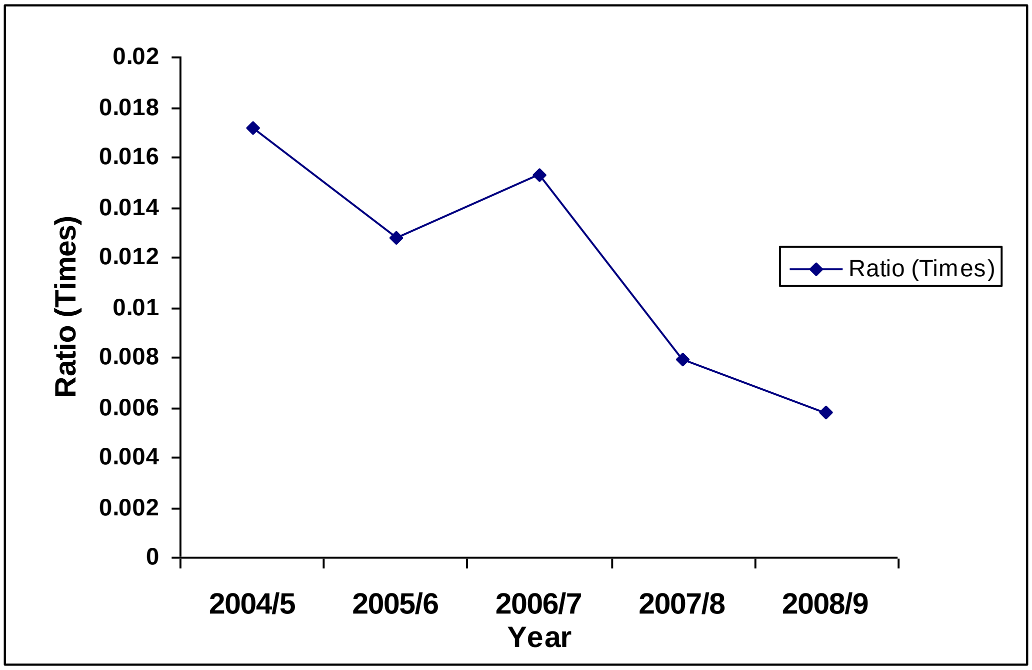
Year	Non- performing Assets	Total Assets	Ratio (Times)
2004/5	281.19	16391	0.0172
2005/6	272.79	21330	0.0128
2006/7	421.97	27591	0.0153
2007/8	309.47	38873	0.0079
2008/9	307.46	53010	0.0058
Mean			**0.0118**

Source: Annual Report of Nepal Investment Bank

Table 4.7 shows that the total non-performing assets to total assets ratio of NIB is in decreasing trend. The highest ratio is 0.0172 in year 2004/5 and lowest ratio 0.0058 in year 2008/9. The mean ratio is 0.0118. Therefore, the bank is able to obtain higher lending opportunity. The fluctuating trends of Ratios are 0.0172, 0.0128, 0.0153, 0.0796 and 0.0058 in year 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9 respectively. This illustrates that credit management of the bank is in good position. According to the direction of NRB to the commercial banks, the ratio of non-performing assets to total assets should be upto 5%. However, referring to this table, NIBL is able to keep the level of non-performing assets at a satisfactory level, which is on an average 1.18%. Non-performing assets to total assets ratio is represented clearly in the figure:

Figure 4.7

Non-performing Assets to Total Assets Ratio



4.2.3. Leverage Ratio

These ratios are also called capital structure ratio or solvency ratio. They indicates mix of funds provided by owners and lenders. As a general rule, there should be an appropriate combination of debt and owner's equity on financing the firm's assets. To judge the long-term financial position of the firm, leverage ratios are calculated. This ratio highlights the long-term financial health, debt servicing capacity and strength and weaknesses of the firm. Following ratios are included under these ratios.

i) Total Debt to Equity Ratio

Total debt is the liability of the firm and it is payable toward its creditors. Debt includes the value of deposits from customers, loan & advances payable, Bills payable and other liabilities. Equity is the share capital and reserves of the firm. Total debt to equity ratio shows the comparison in between total debt and equity.

Total debt = Debentures & Bonds + Borrowings + Deposits + Bills Payable + Proposed & Undistributed Dividends + Income Tax Liabilities

Total Equity = Share Capital + Reserve and Surplus

$$\text{Total Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Equity}}$$

Table 4.8

Total Debt to Equity Ratio

(Amount in million)

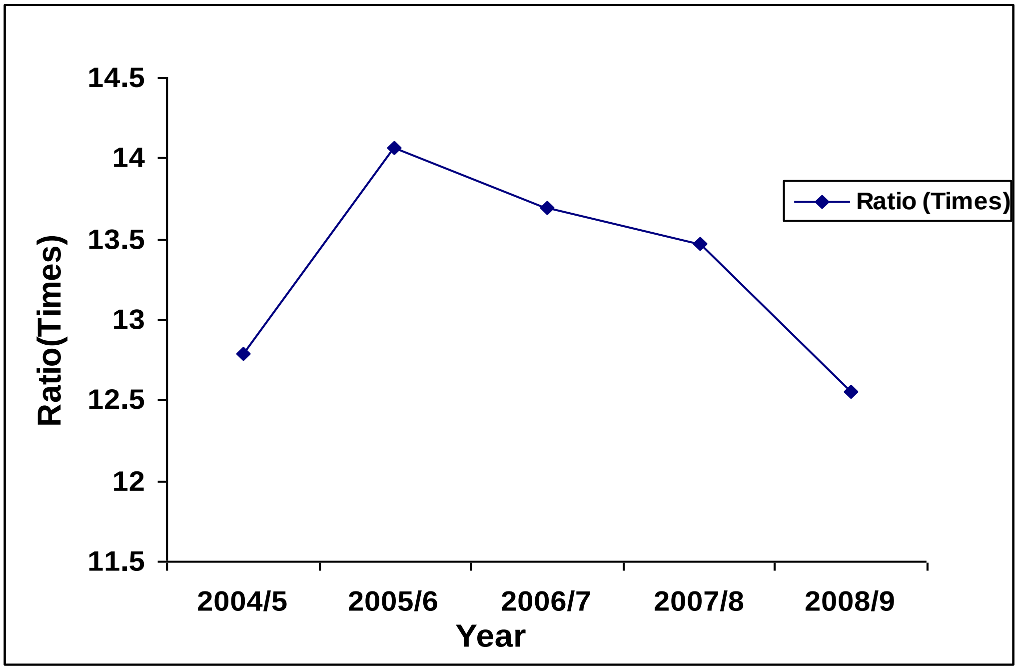
Year	Total Debt	Total Equity	Ratio (Times)
2004/5	15094	1180	12.79
2005/6	19915	1415	14.07
2006/7	25713	1878	13.69
2007/8	36187	2687	13.47
2008/9	49103	3908	12.55
Mean			**13.31**

Source: Annual Report of Nepal Investment Bank

Here, debt to total equity ratio is 12.79 times in the first year 2004/5, 14.07 times in the second year 2005/6, 13.69 times in the third year 2006/7, 13.47 times in the fourth year 2007/8 and 12.55 in the fifth year of the research period. The ratio was 12.79 in the year 2004/5 and is continuously decreasing till research period. This shows that risk of liquidation has decreased constantly. The average mean ratio is 13.31 times, which is excessive. Excess amount of debt capital structure results heavy burden in payment of interest. Risk of liquidation increase if the debt cannot be repay in the time. High gearing ratio may provide high return to the equity shareholders if the bank makes profit. Ratio is represented in figure as follow:

Figure 4.8

Total Debt to Equity Ratio



ii) Total Debt to Total Assets

A metric used to measure a company's financial risk by determining how much of the Company's assets have been financed by debt. It is calculated by adding short term and long-term debt and then dividing by the company's total assets. In general, creditors prefer a low debt ratio & owner prefer a high debt ratio in order to magnify their earning on one hand and to maintain their concerned control over the firm on the other hand. The ratios are as follows:

$$\text{Total Debt to Total Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Table 4.9

Total Debt to Total Assets Ratio

(Amount in million)

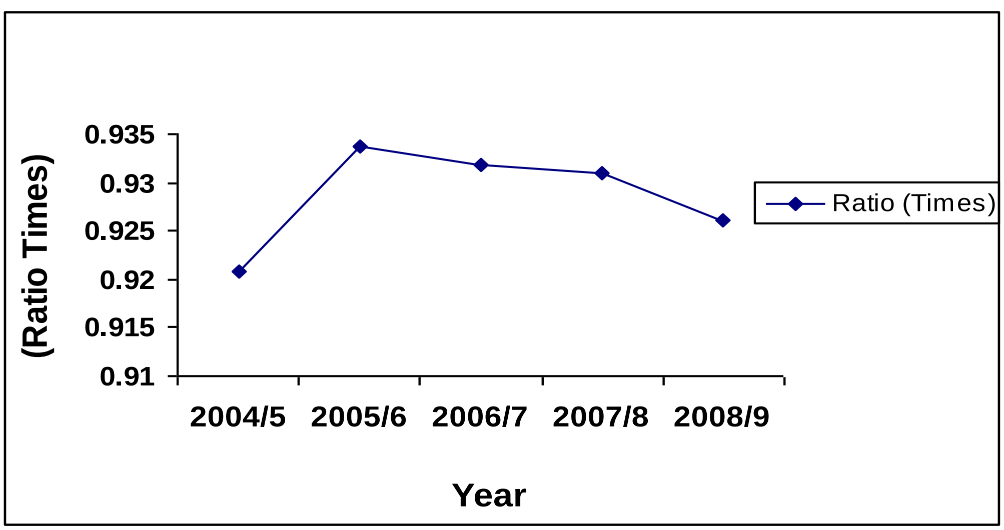
Year	Total Debt	Total Assets	Ratio (Times)
2004/5	15094	16391	0.9208
2005/6	19915	21330	0.9337
2006/7	25713	27591	0.9319
2007/8	36187	38873	0.9309
2008/9	49103	53010	0.9262
Mean			**0.9287**

Source: Annual Report of Nepal Investment Bank

In above table the ratio is found as 0.9208 times, 0.9337 times, 0.9319 times, 0.9309 times and 0.9262 from 1st to 5th year of the study period 2004/5 to 2008/9 respectively. The average mean ratio in 5 years research period is 0.9287 times. It means almost 93% of total assets is financed by the outsider's' funds. It is seen that there is not much deviation in the ratio for the five years study period that states no changes in the company's policy on this ratio for the five years. Ratio is represented in figure as follow:

Figure 4.9

Total Debt to Total Assets Ratio



iii. Total Assets to Total Book Net Worth Ratio

The ratio is calculated to find out the proportion of owner's fund to finance for the total assets. Total Assets comprises of the total value of the assets side of balance sheet where as net worth is the sum of the paid-up capital plus reverses and retained of the bank. It is calculated to see the amount of assets financed by net worth. The formula is:

$$\text{Total Assets to Total Book Net Worth Ratio} = \frac{\text{Total Assets}}{\text{Total Book Net Worth}}$$

Table 4.10

Total Assets to Net Worth Ratio

(Amount in million)

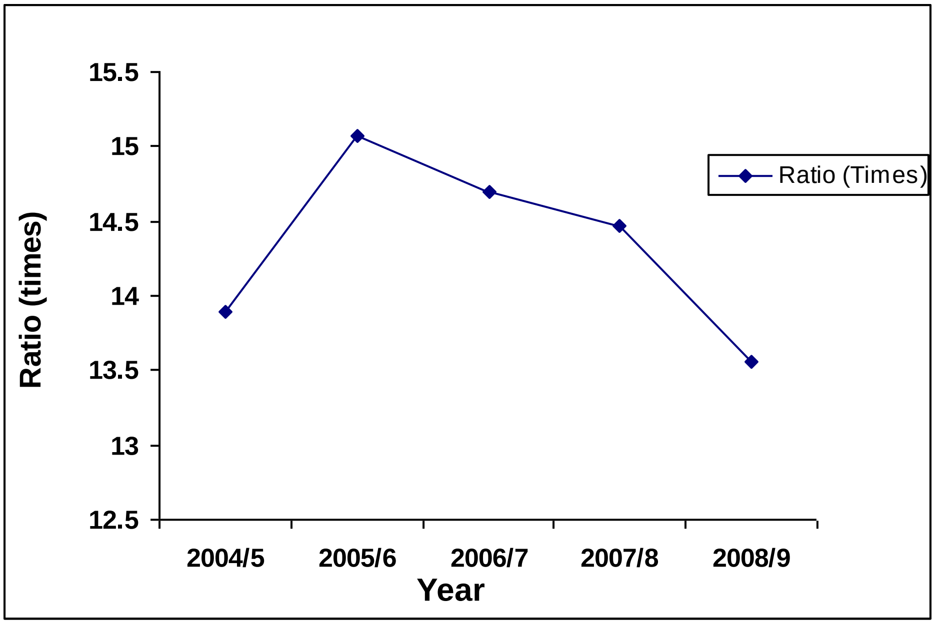
Year	Total Assets	Net Worth	Ratio (Times)
2004/5	16391	1180	13.8900
2005/6	21330	1415	15.0740
2006/7	27591	1878	14.6920
2007/8	38873	2687	14.4670
2008/9	53010	3908	13.5645
Mean			**14.3375**

Source: Annual Report of Nepal Investment Bank

Here, in the table we can see that total assets and net worth of the bank are increasing year by year on the study period. But total assets to net worth ratio have increases at first and decreases thereafter. It is lowest by 13.8900 times in the year 2004/5 and highest by 15.0740 times in the year 2005/6. In overall study period the average ratio is 14.3375 times. It represents good condition of Total assets to net worth ratio. The figure show the clearly Total assets to net worth ratio of the bank

Figure 4.10

Total Assets to Net Worth Ratio



4.2.4 Profitability Ratio

Profit is the major objective of any business organization. Profit is engine that drives every banking institution. Profitability ratios are very helpful to measure the overall operating efficiency of the bank. Profitability ratio is calculated based on sales and investment. No bank can survive without profit. The banks acquire profit by providing different services to its customers, by providing loan and advances and making various kinds of investment opportunities. Higher profit ratio shows the higher efficiency of a bank. The following ratios are calculated:

i) Net Profit to Gross Income Ratio

This ratio measures the volume of gross income. The high ratio measures the higher efficiency of the bank and lower ratio indicates the lower efficiency of the bank. It can be calculated as:

$$\text{Net Profit to Gross Income Ratio} = \frac{\text{Net Profit}}{\text{Gross Income}}$$

Table 4.11

Net Profit to Gross Income Ratio

(Amount in million)

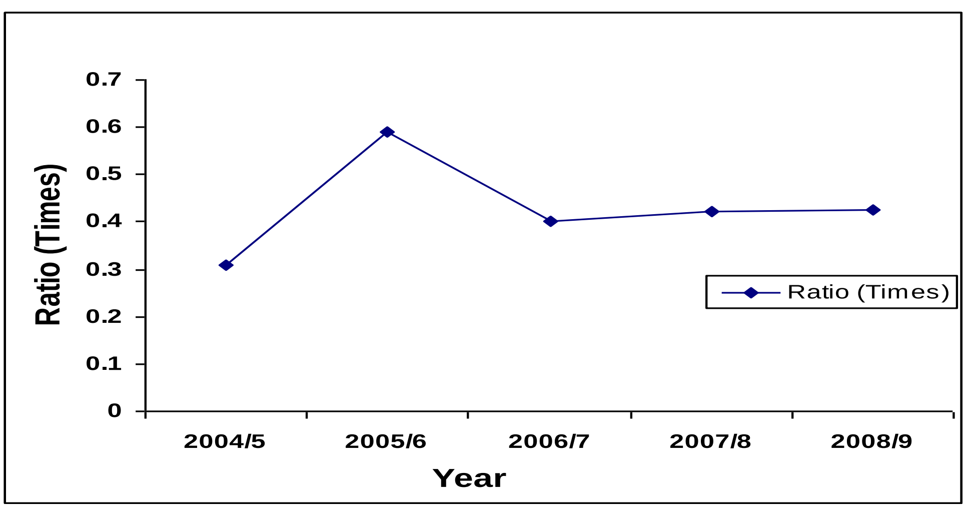
Year	Net Profit	Gross Income	Ratio (Times)
2004/5	232.15	753.89	0.3079
2005/6	350.33	595.49	0.5886
2006/7	501.40	1246.03	0.4024
2007/8	696.73	1649.62	0.4223
2008/9	901.00	2116.66	0.4257
Mean			**0.4294**

Source: Annual Report of Nepal Investment Bank

Table 4.11 illustrates that the total net profit to gross income ratio of NIBL is in increasing and decreasing trend. The highest ratio is 0.5886 in year 2005/6 and lowest ratio 0.3079 in year 2004/5. The Ratios are 0.4024 and 0.4223 and 0.4257 in year 2006/7, 2007/8 and 2008/9 respectively. The mean ratio is 0.4294 that defines the bank is able to obtain higher efficiency. Therefore, credit management of the bank is in good position. Net profit to gross income ratio can be seen in the figure:

Figure 4.11

Net Profit to Gross Income Ratio



ii) Interest Income to Total Income Ratio

This ratio measures the volume of interest income to total income. The high ratio indicates the banks performance on other free base activities. On the other hand, the high ratio also refers to the high contribution made by lending and investing activities. The formula is:

$$\text{Interest Income to Total Income Ratio} = \frac{\text{Interest Income}}{\text{Total Income}}$$

Table 4.12

Interest Income to Total Income Ratio

(Amount in million)

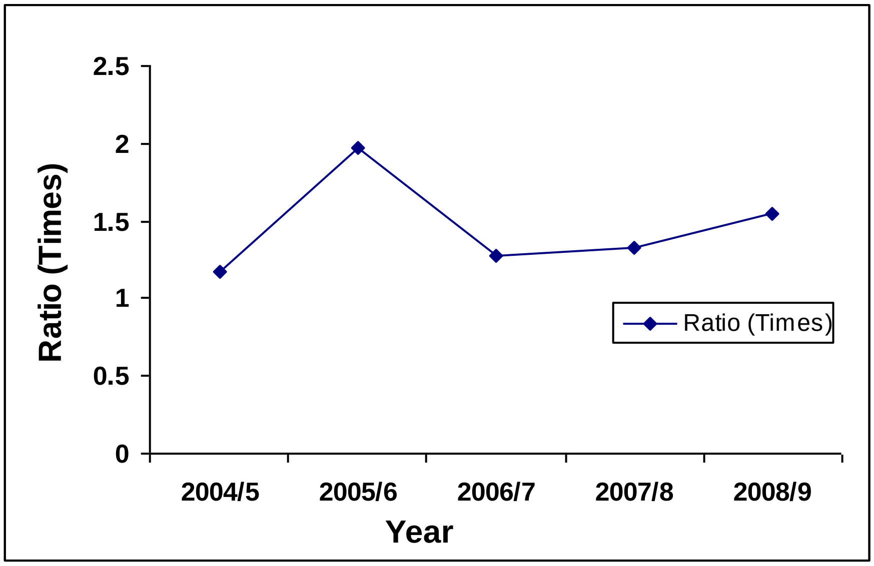
Year	Interest Income	Total Income	Ratio (Times)
2004/5	887	753.89	1.1765
2005/6	1173	595.49	1.9698
2006/7	1585	1246.03	1.2720
2007/8	2194	1649.62	1.3300
2008/9	3268	2116.66	1.5439
Mean			**1.4584**

Source: Annual Report of Nepal Investment Bank

From the given table we can see that the total interest income to total income ratio of NIBL is in fluctuating trend. The ratios are 1.1765, 1.9698, 1.2720, 1.3300 and 1.5439 times in fiscal year 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9 respectively. In the present year 2008/9 the ratio has increased by 1.5439 from 1.3300 of the year 2007/8. The mean ratio is 1.399 times in the study period which indicates the high contribution made by NIBL in lending and investing activities. Inspite, the total interest income and total income is continuously increasing. Therefore, credit management of the bank is in a good position. Interest income and total income are presented in line diagram as follows:

Figure 4.12

Interest Income to Total Income Ratio



iii) Operating Profit to Loan and Advances Ratio

Operating profit to loan advances ratio measures the earning capacity of commercial bank. Operating profit to loan and advance ratio is calculated by dividing operating profit by loan and advance.

$$\text{Operating Profit to Loan and Advances Ratio} = \frac{\text{Operating Profit}}{\text{Loan and Advances}}$$

Table 4.13

Operating Profit to Loan and Advances Ratio

(Amount in million)

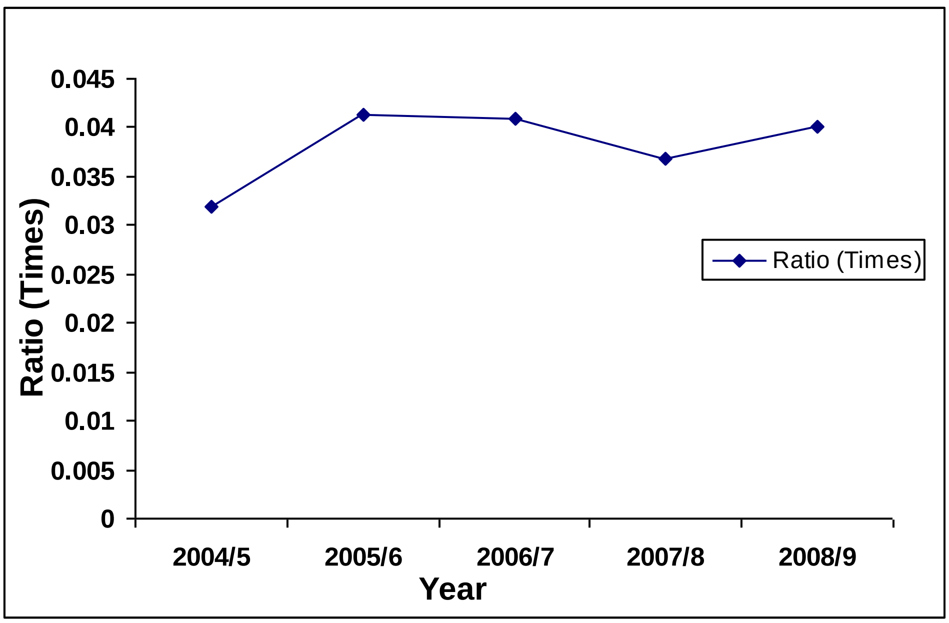
Year	Operating Profit	Loan and advances	Ratio (Times)
2004/5	333.57	10453	0.0319
2005/6	544.31	13178	0.0413
2006/7	727.51	17769	0.0409
2007/8	1013.33	27529	0.0368
2008/9	1477	36827	0.0401
Mean			**0.0382**

Source: Annual Report of Nepal Investment Bank

Table 4.13 explains that the operating profit to credit and advances ratio of NIBL is in fluctuating trend. The highest ratio is 0.0413 in the year 2005/6 and lowest ratio 0.0319 in the year 2004/5. This indicates the high profitability in 2005/6and low profitability in 2004/5 through loan and advance of the bank. The Ratios are 0.0409, 0.0368 and 0.0401 in the period 2006/7, 2007/8 and 2008/9 respectively. These all shows the fine profitability position of NIBL. The Bank possesses good credit management. The average mean ratio over 5 periods is 0.0382. Operating profit and loan advances are presented in the bar diagram as follows:

Figure 4.13

Operating Profit to Loan and Advances Ratio



iv) Return on Loan and Advances Ratio

This ratio measures the earning capacity of commercial banks through its fund mobilization as loan and advances and vice-versa. It can be calculated by:

$$\text{Return on Loan and Advances} = \frac{\text{Net Profit}}{\text{Loan and Advances}}$$

Table 4.14

Return on Loan and Advances Ratio

(Amount in million)

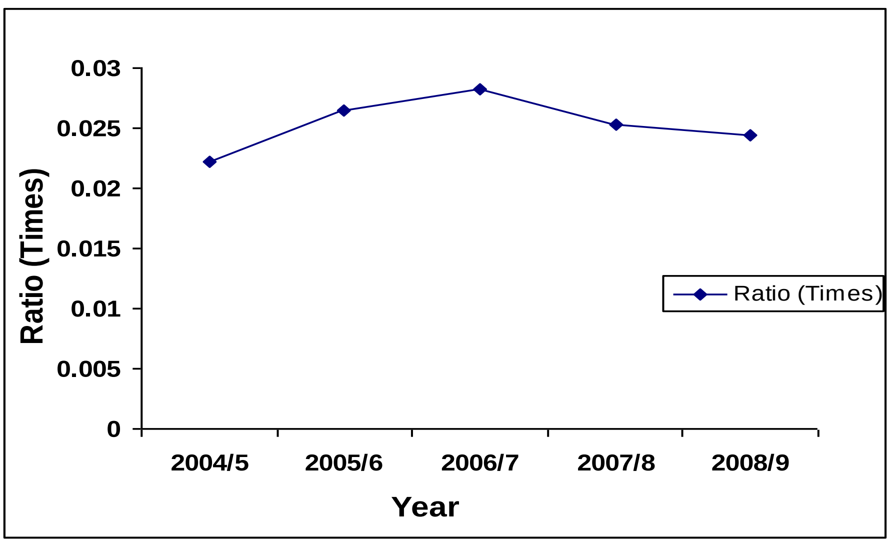
Year	Net Profit	Loan and Advance	Ratio (Times)
2004/5	232.15	10453	0.0222
2005/6	350.53	13178	0.0265
2006/7	501.40	17769	0.0282
2007/8	696.73	27529	0.0253
2008/9	901.00	36827	0.0244
Mean			**0.0253**

Source: Annual Report of Nepal Investment Bank

The given table elaborates that the return on loan and advances ratio of NIBL is changing in all study period. The highest ratio is 0.0282 in the year 2006/7 and lowest ratio 0.0222 in the year 2004/5. This shows the highest earning in 2006/7 and lowest earning capacity in 2004/5 from loan and advances. The average mean ratio is 2.46% that means NIBL has high earning capacity through loan and advances. Thus, credit management is in good position. Net profit and loan advances are represented in the diagram as follows.

Figure 4.14

Return on Loan and Advances Ratio



V) Net profit to Total Assets

This ratio shows the relationship of Net Profit and total assets to determine how efficiently the total assets have been used by the management. This ratio indicates the ability of generating profit per rupees of total assets.

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

Table 4.15

Net Profit to Total Assets Ratio

(Amount in million)

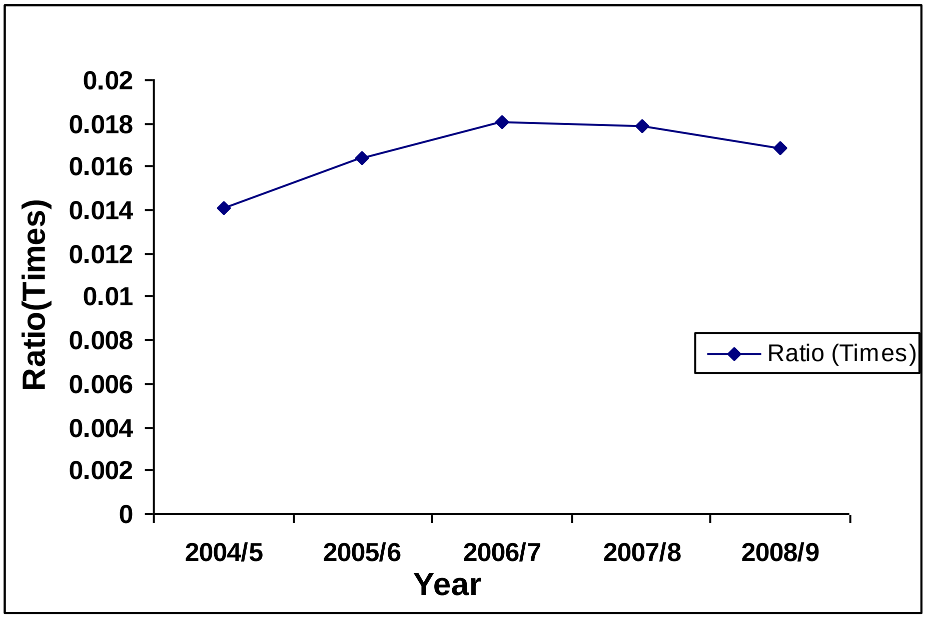
Year	Net Profit	Total Assets	Ratio (Times)
2004/5	232.15	16391	0.0141
2005/6	350.53	21330	0.0164
2006/7	501.40	27591	0.0181
2007/8	696.73	38873	0.0179
2008/9	901	53010	0.0169
Mean			**0.0167**

Source: Annual Report of Nepal Investment Bank

In above table shows that the Net profit to total assets ratio of NIBL is in fluctuating trend. The ratio are 0.0141, 0.0164, 0.0181, 0.0179 and 0.0169 in the following years 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9 respectively. The highest ratio is 0.0181 in 2006/7 and lowest ratio is 0.0141 in the year 2004/5. The mean ratio of 5 years is 1.56%. This indicates the normal earning capacity through asset utilization. Net profit and total assets of five-year research period are illustrated in the diagram below:

Figure 4.15

Net Profit to Total Assets Ratio



vi) Earning per Share

It measures the profit available to equity shareholders on per share basis i.e. the amount that shareholders can get from each share held. The objective of computing this ratio is to measure the profitability of the firm on per equity share basis. This ratio is calculated by dividing the net profit after preference dividend by the number of equity. It is calculated by:

$$\text{Earning Per Share} = \frac{\text{Net Profit}}{\text{No. of Equity Share}}$$

Table 4.16

Earning Per Share

(Amount in million)

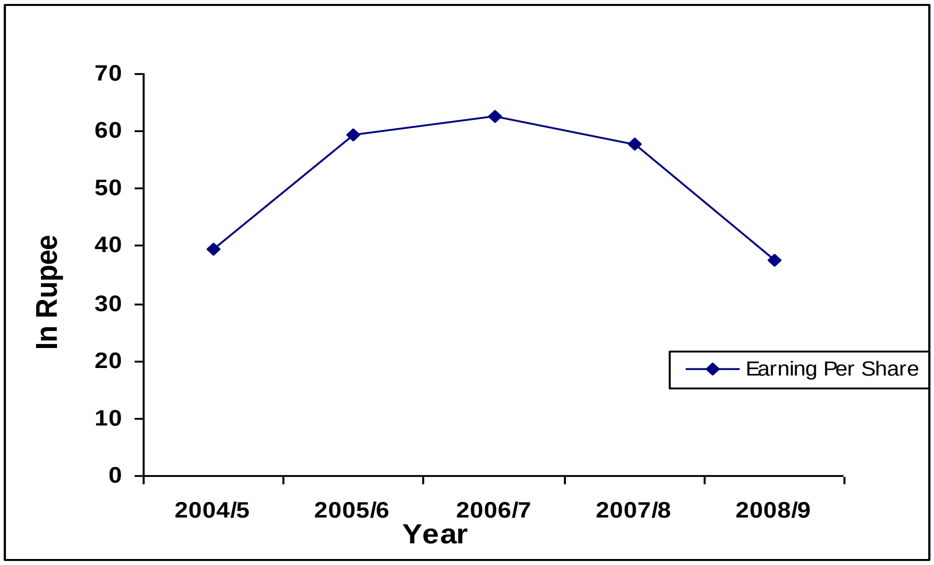
Year	Net Profit	No. of Equity Shares	Earning Per Share
2004/5	232.15	5877385	39.50
2005/6	350.53	5905860	59.35
2006/7	501.40	8013526	62.57
2007/8	696.73	12039154	57.87
2008/9	901.00	24078034	37.42
Mean			**51.34**

Source: Annual Report of Nepal Investment Bank

Here, Earning per share of NIBL is in fluctuating trend as shown in the above table. The highest EPS is RS 62.57 in year 2006/7 and lowest EPS Rs. 37.42 in year 2008/9. The average means EPS of NIBL Bank is Rs. 51.34 in the study period. This shows the better profitability in the coming years. Earning per shares are Rs 39.50, Rs.59.35 and Rs. 57.87 in year 2004/5, 2005/6 and 2007/8 respectively. This shows the better profitability in the study years. Whereas, in the year 2008/9, EPS 37.42 is lower due to increased number of shareholder and decreased in the value of share. Beside that aggregate profit of NIBL is in increasing trends. Therefore, we can say that credit management and overall performance of company is in good position. Earning per shares is represented in the following diagram.

Figure 4.16

Earning Per Share



vii) Price Earning Ratio

Price earning ratio measures the profitability of the firm. Higher ratio measures the higher profitability of the firm lower ratio measures lower profitability of the firm. This ratio shows the relationship between earning per share and market value per share.

$$\text{Price Earning Ratio (PE Ratio)} = \frac{\text{Market Value Per Share}}{\text{Earning Per Share}}$$

Table 4.17

Price Earning Ratio

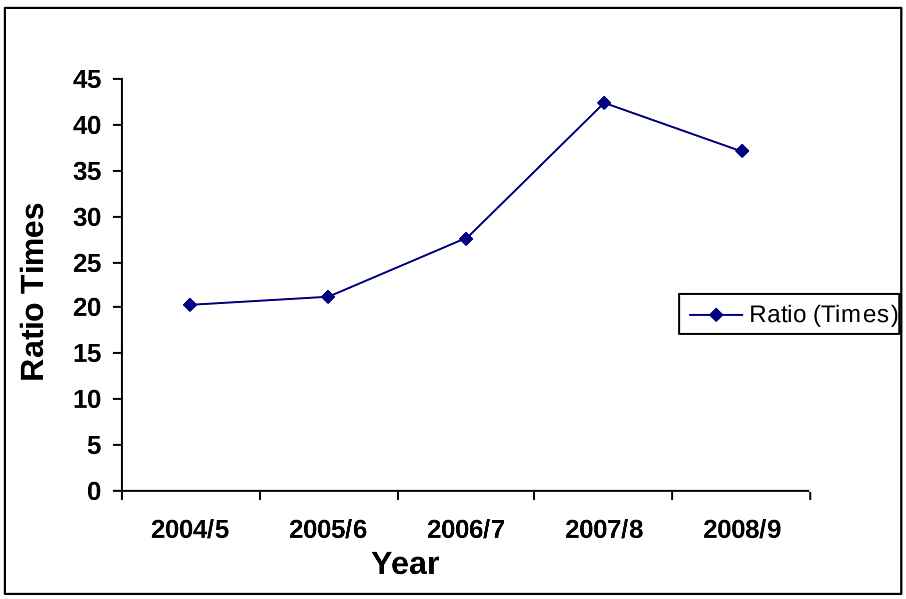
Year	Market Price per Share	Earning Per Share	Ratio (Times)
2004/5	800	39.50	20.25
2005/6	1260	59.35	21.22
2006/7	1729	62.57	27.63
2007/8	2450	57.87	42.33
2008/9	1388	37.42	37.09
Mean			**29.70**

Source: Annual Report of Nepal Investment Bank

Above table states that price-earning ratio earning of NIBL is in increasing trend but decreases in the current year 2008/9. The highest price-earning ratio is 42.33 in year 2007/8 and lowest ratio 20.25 times in year 2004/5. Ratios are 21.229, 27.633 and 37.09 times in other three years 2005/6, 2006/7 and 2008/9. The average mean ratio of the NIBL is 29.70 times in the study period. This shows the better profitability in aggregate. It represents high expectation of company in market and high demand of share. But in the present year 2008/9 the ratio has slightly descend. Anyway, creditability seems to be good position. Price earning ratios are represented in the diagram as follow:

Figure 4.17

Price Earning Ratio



4.2.5 Lending Efficiency Ratio

Lending Efficiency indicates how properly or efficiently the asset and funds has been used? The efficiency of firm largely depends on the efficiency with which its assets are managed and utilized. This ratio is concerned with measuring efficiency of the bank. This ratio also shows the utility to available fund. The following are the various type of lending efficiency ratio:

i) Total Loan Loss Provision to Total Loan and Advances Ratio

Loan loss provision to total loan and advances describes the quality of assets that the bank holding. The amount of loan loss provision in balance sheet refers to general loan loss provision. The provision for loan loss reflects the increasing probability of non-performing loan. The provision of loan means that the profit of the banks will come down by such amount.

Increase in loan loss provisions decreases profit, result to the decrease in dividends. But its positive impact is that it makes financial conditions of the bank strong by controlling the credit risk and by reducing risks related to the deposits. Therefore, it can be said due to the increase in loan loss provision bank suffers only for short-term while the good financial conditions and safety of loans will make bank's prosperity resulting increase in profit for long term. The ratio can be calculated by:

Total Loan Loss Provision to Total Loan and Advances

$$= \frac{\text{Loan Loss Provision}}{\text{Total Loan and Advances}}$$

Table 4.18

Loan Loss Provision to Total Loan and Advances Ratio

(Amount in million)

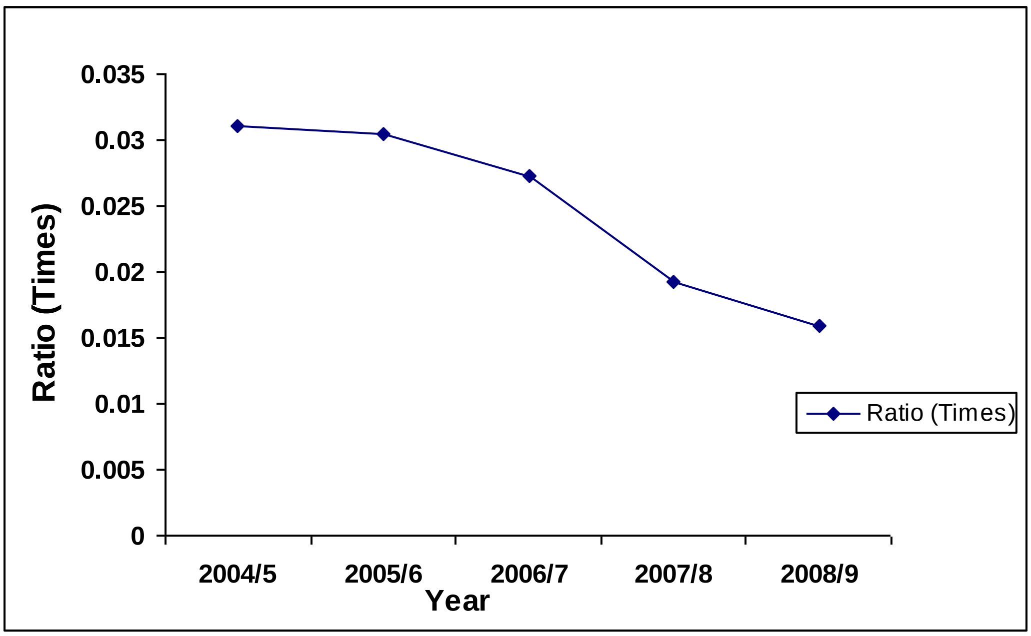
Year	Loan Loss Provision	Loan and Advances	Ratio (Times)
2004/5	325.16	10453	0.0311
2005/6	401.94	13178	0.0305
2006/7	482.67	17769	0.0272
2007/8	532.65	27529	0.0193
2008/9	585.95	36827	0.0159
Mean			**0.0248**

Source: Annual Report of Nepal Investment Bank

From the table we can see that loan loss provision to total loan and advances ratio of NIBL is continuously diminishing. The ratio is 0.0311 in year 2004/5, 030305 in the year 2005/6, 0.0272 in the year 2006/7, 0.0193 in the year 2007/8 and 0.0159 in year 2008/9. The mean ratio of the study period is 0.0248. This clarifies good quality of assets in the total volume of loan and advances. The ratio is constantly decreasing till 0.0159 upto the year 2008/9 which indicates that the bank is increasing its performance. Thus, credit management is in a good position. Loan loss provision and total loan and advances are represented in the following diagram clearly:

Figure 4.18

Loan Loss Provision to Total Loan and Advances Ratio



ii) Non-Performing Loan to Total Loan and Advances Ratio

This ratio shows the relationship of Non-performing loan and total loan and advance. It determines how efficiently the total loan and advance have been used by the management. Higher ratio shows the low efficient operating of the credit management and lower ratio shows the more efficient operating of credit management.

$$\text{Non-performing Loan to Total Loan and Advances} = \frac{\text{Non-performing Loan}}{\text{Total Loan and Advances}}$$

Table 4.19

Non-Performing Loan to Total Credit and Advances Ratio

(Amounts in million)

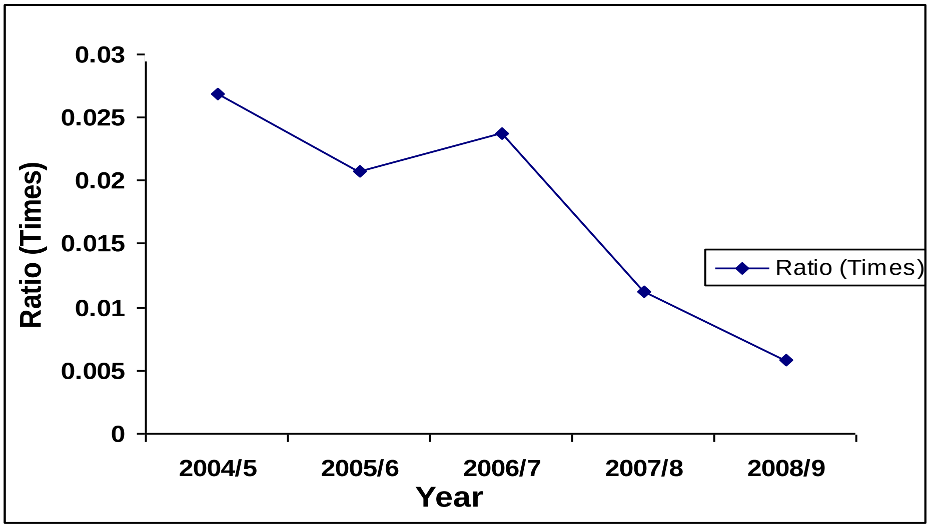
Year	Non –performing Loan	Loan and Advance	Ratio (Times)
2004/5	281.19	10453	0.0269
2005/6	272.79	13178	0.0207
2006/7	421.97	17769	0.0237
2007/8	309.47	27529	0.0112
2008/9	213.91	36827	0.0058
Mean			**0.0176**

Source: Annual Report of Nepal Investment Bank

Non- performing loan to total loan and advance during 5 years of study period of NIBL is in decreasing trend as mentioned in the above tabulated figure. The ratios are 0.0269, 0.0207, 0.0237, 0.0112 and 0.0058 in consecutive year 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9 respectively. The ratio has declined to 0.0058 in the current year 2008/9 from 0.0112 in 2007/8. It shows that the bank is decreasing the non-performing loan from total loan. The average non-performing loan to total loan and advances ratio of NIBL is 0.0176 during the study period that refers the more efficient operating of credit management. Therefore, credit management is in a good position recently. Non- performing loan to loan and advances ratio present clearly in successive figure:

Figure 4.19

Non-Performing Loan to Total Credit and Advances Ratio



iii) Interest Expenses to Total Deposit Ratio

The ratio measures the percentage of total interest against total deposit. Commercial banks are dependent upon its ability to generate cheaper fund. The cheaper fund has more the probability of generating loans and advances and vice-versa. Interest expenses to total deposit ratio measures the interest expenses towards the deposits. The formula is:

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

Table 4.20

Interest Expenses to Total Deposit Ratio

(Amounts in million)

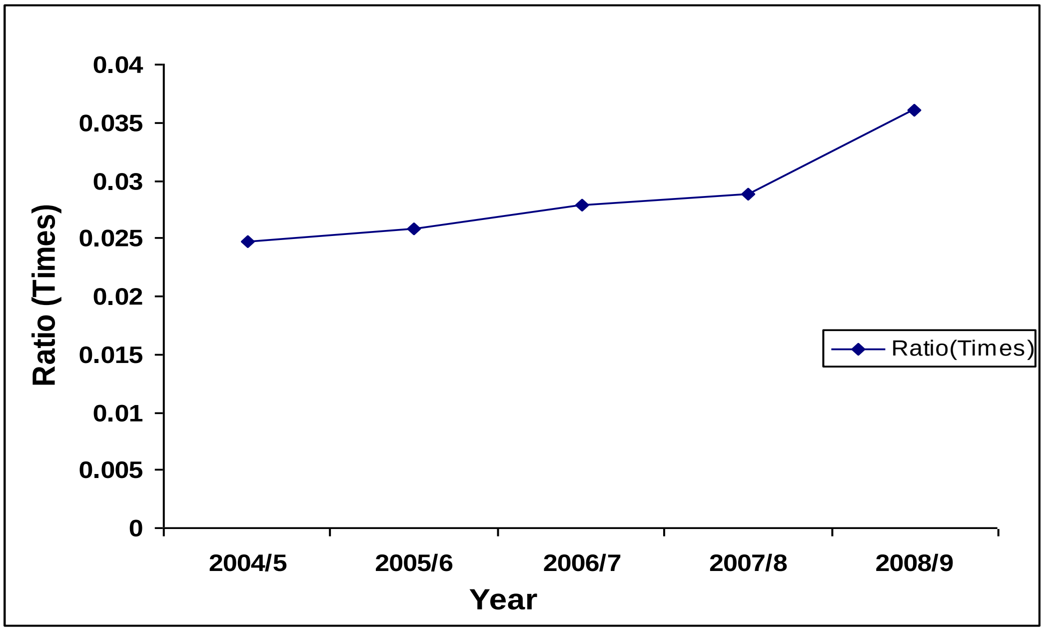
Year	Interest Expenses	Total Deposit	Ratio(Times)
2004/5	354.55	14255	0.0248
2005/6	490.95	18927	0.0259
2006/7	685.53	24489	0.0279
2007/8	992.16	34452	0.0288
2008/9	1686.97	46698	0.0361
Mean			**0.0287**

Source: Annual Report of Nepal Investment Bank

Above table shows that interest expenses to total deposit ratio of NIBL is in fluctuating trend. The average mean point of interest expenses to total deposit ratio is 2.787% during the study period. Ratios are 0.0248, 0.0259, 0.0279, 0.0288 and 0.0361 in respective year 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9 .In the present year 2008/9, the ratio of interest expenses to total deposit of NIBL has increased to 0.0361 due to the increase in total deposit. Therefore, the ratio does not indicate higher interest expenses on total deposit. Interest expenses to total deposit ratio is represented in line figure as follows:

Figure 4.20

Interest Expenses to Total Deposit Ratio



4.3 Statistical Analysis

i) Correlation Coefficient

Correlation coefficient is used to define the relationship between two or more variable. Coefficient of correlation has been studied to find out whether the two available variables are inter-correlated or not. If the result falls with in the correlated point, the two variables are inter-correlated otherwise not. Here, to find out the correlation coefficient between total lending and total assets, the widely used method of Karl Pearson's Coefficient of Correlation has been adopted.

Coefficient of Correlation (r) = $\dfrac{N\Sigma X_1X_2-(\Sigma X_1)(\Sigma X_2)}{\sqrt{[N\Sigma X_1{}^2-\Sigma(X_1)^2]}\sqrt{[N\Sigma X_2{}^2\Sigma(X_2)^2]}}$

Here,

N = Number of pairs of X and Y observed.

X = values of credit and advances.

Y= values of total assets.

r = Karl Pearson's Coefficient of Correlation.

ii) Probable Error

It is a method to determine the reliability of the value of Pearson's coefficient of correlation. It helps in interpreting the value of coefficient of correlation. If 'r' is the calculated correlation coefficient in a sample of 'n' pairs of observation, then its standard error, usually denoted by S.E. & is given by:

S.E. (r) $= \dfrac{1-\mathbf{r}^2}{\sqrt{\mathbf{N}}}$

Probable error of the coefficient of correlation can also be calculated from S.E. of the co-efficient of correlation by the following formula:

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

Where r = coefficient of correlation

n = no of observations

The probable error is used to test whether the calculated value of correlation significant or not.

If $r < 6 \times P.E(r)$, then the value of r is not significant

If $r > 6 \times P.E(r)$, then the value of r is significant

In this course of study, correlation coefficient and probable error is used to measure the sample relationship between.

- Total credit and Total assets
- Loan and advance and Total deposit

A) Correlation Coefficient between Deposit and Loan and Advances

Deposit have played very important role in performance of a commercial banks. Similarly, loan & advances are very important to mobilize the collected deposits. Co-efficient of correlation between deposit and loan and advances measures the degree of relationship between these two variables. The main objectives of computing 'r' between these two variables is to justify whether deposit are significantly used as credit and advances in proper way or not. Coefficient of correlation is determination between deposit and loan and advances of NIBL.

Table 4.21

Correlation between Deposit and Loan and Advances

Correlation Coefficient (r)	Coefficient of determination(r^2)	Probable error (P.Er.)	6 P.Er.
0.998	0.996	0.0012	0.0072

Source: Through SPSS Data Editor 6.0

The above table shows that the correlation coefficient between deposit and loan and advances is 0.998. There is highly positive correlation between loan and advances and deposit collection. The coefficient of determination is 0.996, which states that 99.6% of loan has been invested from the deposit collection. Therefore, increase in deposit highly lead to increase loan and advances. In accordance to the increase in deposit NIBL's loan and advances is increasing in trend. Probable error

(P.E.) is calculated to be 0.0012 and 6 P.E. is 0.072. Probable error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the calculated value of 'r'. Here, 'r' is greater than 6 P.E., this proves that there significant correlation between loan and advance and deposit.

B) Coefficient of Correlation between Total Deposits and Total Asset

The coefficient of correlation between deposit and asset measures the degree of relationship between these two variables. The following Table No. 4.22 shows the coefficient correlation between total deposits and total assets i.e. r, P.Er., 6P.Er. and coefficient of determination (r^2) of NIBL during the study period.

Table 4.22

Correlation between Total Deposits and Total Asset

Correlation Coefficient (r)	Coefficient of determination(r^2)	Probable error (P.Er.)	6 P.Er.
0.999	0.998	0.0060	0.0036

Source: Through SPSS Data Editor 6.0

The above table shows that the coefficient of correlation between total deposit and total assets of NIBL is 0.999. It shows the highly positive correlation. In addition, coefficient of determination of NIBL is 0.998. It means there is 99.8 % of total assets is explained by total deposit. The correlation coefficient is significant because the correlation coefficient is more than 6 P.Er. It refers that there is significant relationship between total deposit and total Asset. Therefore, the above analysis concludes that NIBL has high degree positive correlation between total deposit and total assets.

C) Co-efficient of Correlation between Credit and Advances and Net Profit

Co-efficient of correlation between loan and advances and net profit is used to measure the degree of relationship between two variable i.e. Loan and advance and net profit of NIBL during the study period. Where Loan and advance is independent variable (X) and net profit is dependent variable (Y). The main objective of calculating this ratio is to determine the degree of relationship whether the net profit is significantly correlated or not and to find out the variation of net profit to loan and advance through the coefficient of determination. The following table shows the r, r^2, P.Er. and 6P.Er. between these two variables of Nepal Investment Bank limited for the study period.

Table 4.23

Correlation between Credit and advance and Net profit

Correlation Coefficient (r)	Coefficient of determination(r^2)	Probable error (P.Er.)	6 P.Er.
0.992	0.9842	0.00476	0.0028

Source: Through SPSS Data Editor 6.0

The correlation coefficient between Net profit and credit and advances is shown in the above tabulated figure. The correlation coefficient between net profit and credit and advances is 0.992. There is highly positive correlation between credit and advances and net profit. The coefficient of determination is 0.9842, which depicts that 98.42% of profit is explained by the credit and advance. Probable error (P.E.) is calculated to be 0.00476 and 6 P.E. is 0.0028. Probable error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the calculated value of r. Here, 'r' is greater than 6 P.Er., this states that there is significant correlation between credit and advance and net profit .

D) Coefficient of Correlation between Total Debt and Total Asset

Coefficient of correlation between total debt and total assets measures the degree of their relationship. In this correlation analysis, a total debt is independent variable and total asset is dependent variable. The following table shows the coefficient of correlation coefficient of determination, probable error and six times of P.Er. during the fiscal year 2004/5 to 2008/9.

Table 4.24

Correlation between Total Debt and Total Assets

Correlation Coefficient (r)	Coefficient of determination(r^2)	Probable error (P.Er.)	6 P.Er.
0.9982	0.9964	0.0010	0.0065

Source: Through SPSS Data Editor 6.0

Above table shows correlation coefficient between total debt and total asset of NIBL is 0.9982, which implies there is highly positive correlation between total debt and total assets. In addition, coefficient of determination is 0.9964. It means 99.64 % of assets is contribute by debt. Obviously, the correlation is perfectly significant as coefficient of determination is higher than P.Er. Thus, it can conclude that the degree of relationship between total debt and total assets of NIBL has highly positive correlation.

E) Correlation Coefficient between Credit and Advances and Non-Performing Assets

Co-efficient of correlation between credit and advances and non-performing asset determine the degree of relationship between two variable i.e. credit and advance and non-performing asset of NIBL during the study period. The main objective of calculating this ratio is to determine the degree of relationship between these two variables.

Table 4.25

Correlation between Loan and advance and Non- Performing Assets

Correlation Coefficient (r)	Coefficient of determination(r^2)	Probable error (P.Er.)	6 P.Er.
0.0699	0.4886	0.3001	1.8010

Source: Through SPSS Data Editor 6.0

The correlation coefficient between Non-performing asset and credit and advances of NIBL is 0.0699 as mentioned in the given table. There is moderate positive correlation between credit and advances and non-performing assets. The coefficient of determination is 0.0049, which depicts that 4.9% of NIBL has been applied by the credit and advances. Probable error (P.E.) is calculated to be 0.3001 and 6 P.E. is 1.8010. Probable error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the calculated value of r. Here, 'r' is smaller than 6P.Er. so, this is the evidence of insignificant correlation between credit and advance and Non-performing asset ratio. This further reveals there is insignificant relationship between credit and advances and deposit.

iii. Trend Analysis

The measurement of trend analysis shows the behavior of given variables in series of time. Trend analysis is carried out to see average performance of the banks for next three years. Trend analysis is based on some assumptions;

- All the other things will remain unchanged.
- The bank will run in present condition.
- The economy will remain in present stage.
- N.R.B. will not change its guidelines to commercial banks.

a) Trend Analysis of Total Deposit

Deposit is the important part in banking sector hence its trend for next three years will be forecasted for future analysis. This is calculated by the least square method.

$$Y = a + bx \ldots\ldots\ldots\ldots\text{(I)}$$

Where,

Y = dependent variable

a =Y- intercept

b = slope of trend line or annual growth rate

X = deviation from some convenient time periods.

Table 4.26

Trend Analysis of Total Deposit

(Amount in million)

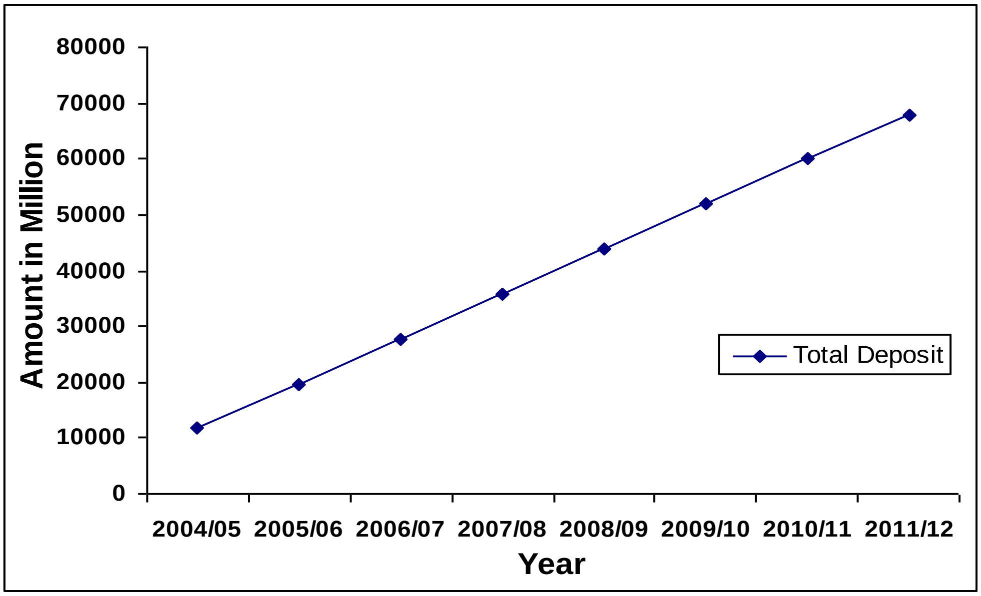
Year(x)	Total Deposit
2004/05	11682.00
2005/06	19723.10
2006/07	27764.20
2007/08	35805.30
2008/09	43846.40
2009/10	51887.50
2010/11	59928.60
2011/12	67969.70

Source: Appendix - I

The following graph helps to show the trend lines of total deposit for the projected three years. The equation Y=27764.2+8041.1X

Figure 4.21

Trend Analysis of Total Deposit



Above table and figure shows Total deposit of NIBL .Here, the total deposit of NIBL is increasing smoothly which indicates that NIBL acquires more deposit in future. The trend analysis shows the projected deposit amount from fiscal year FY 2009/10 to FY 2011/12 if other things remain the same.

b) Trend Analysis of Total Loan and Advance

Table 4.27

Trend Analysis of Total Loan and Advance

(Amount in million)

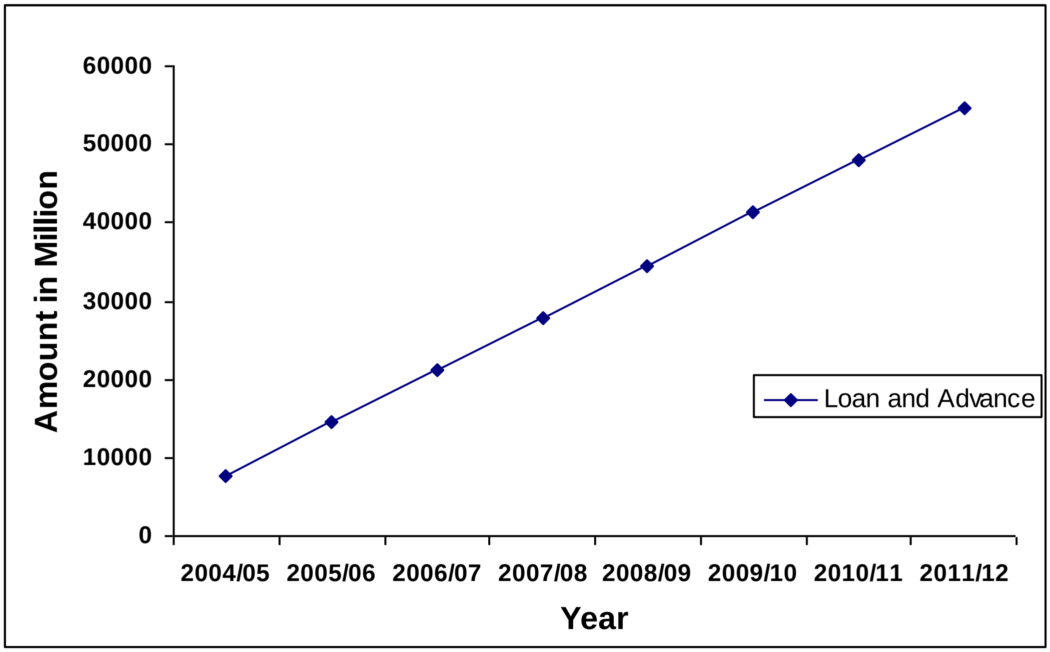
Year(x)	Loan and Advance
2004/05	7731.40
2005/06	14441.30
2006/07	21151.20
2007/08	27861.10
2008/09	34571.00
2009/10	41280.90
2010/11	47990.80
2011/12	54700.70

Source: Appendix - II

The following graph helps to show the trend lines of Loan and advance for the projected five years. The equation is Y = 21151.20+6709.9X

Figure 4.22

Trend Analysis of Total Loan and Advance



The given table and figure illustrates trend values of loan and advances of NIBL which is in increasing trend. It suggests to increase credit and advance in same way to make better profit. The trend analysis shows forecasted amount upto the fiscal year F/Y 2011/12.

c) **Trend Analysis of Total Asset**

Table 4.28

Trend Analysis of Total Asset

(Amount in million)

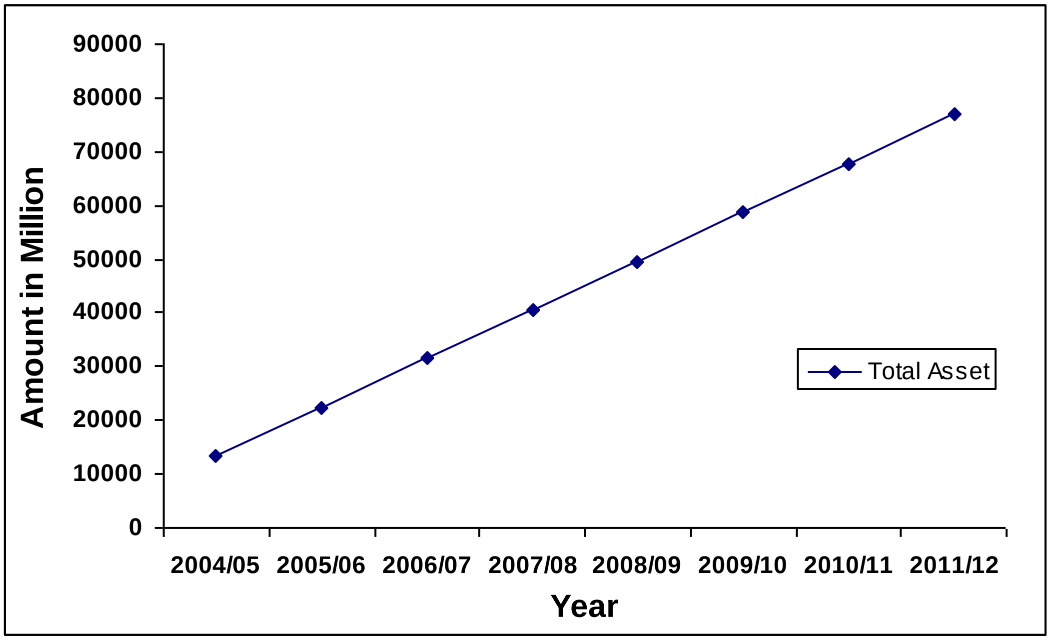
Year(x)	Total Asset
2004/05	13282.80
2005/06	22360.90
2006/07	31439.00
2007/08	40517.10
2008/09	49595.20
2009/10	58673.30
2010/11	67751.40
2011/12	76829.50

Source: Appendix –III

The following graph helps to show the trend lines of Total Asset for the projected three years. The equation is Y=31439+9078.10X

Figure 4.23

Trend Analysis of Total Asset



Above table and figure shows the trends of Total Assets of NIBL. Here, the rate of increment of total assets for NIBL seems to be moderate which is better for the company. Thus, this type of increment should be maintained regularly by NIBL. The trend analysis shows the projected deposit amount in fiscal year FY 2009/10 to FY 2011/12.

d) Trend Line of Net Profit

Table 4.29

Trend Analysis of Net Profit

(Amount in million)

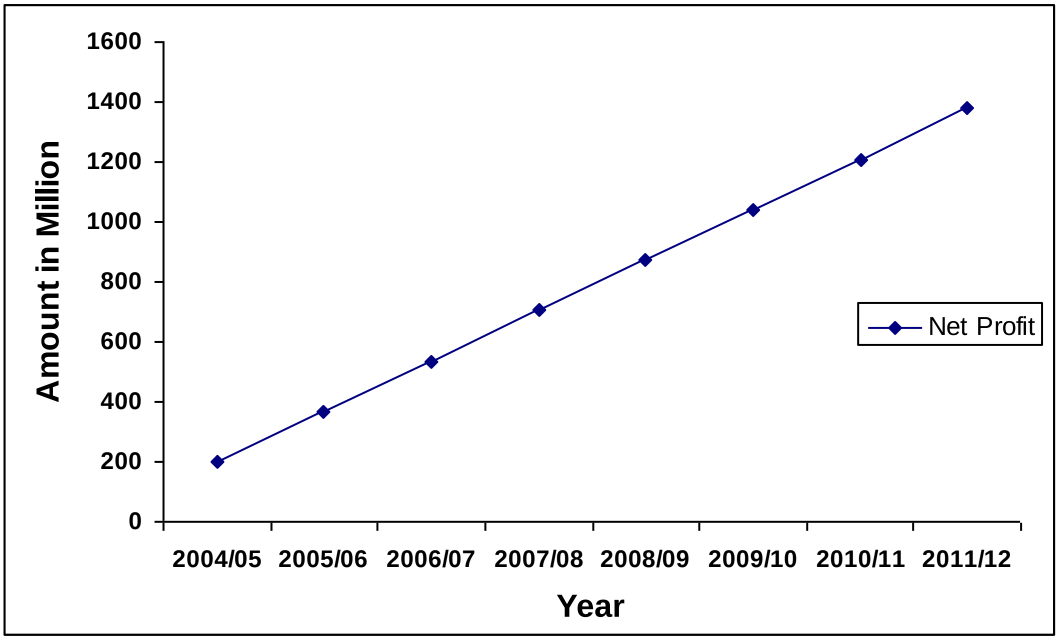
Year(x)	Net Profit
2004/05	199.58
2005/06	367.97
2006/07	536.36
2007/08	704.75
2008/09	873.14
2009/10	1041.53
2010/11	1209.92
2011/12	1378.31

Source: Appendix - IV

The following graph helps to show the trend lines of Net profit for the projected three years. The equation is Y=536.36+168.39X

Figure 4.24

Trend Analysis of Net Profit



The analysis of total profit of NIBL is mentioned in the above table and figure. The rate of increment of total profit for NIBL seems to be aggressively increasing. This type of increment is beneficial so the trend should be applied the following years. The trend analysis indicates the probable net profit amount in fiscal year FY 2009/10 to FY 2011/12.

4.4 Major Findings of the Study

A. Liquidity Ratio

The cash and bank balance to total deposit of the NIBL bank shows the fluctuating trend during the study period. The mean ratio is 0.1044 times in the study period. Similarly, Cash and bank balance to current deposit of the bank is also in the changeable trend. The mean average calculation is 1.3283 times in the study period. This means that the bank is able to be maintained the good liquidity position. Again, the cash and bank balance to interest sensitive ratio of NIBL is in fluctuating trend. The mean ratio is 1.5216 times which indicates that the bank is able to maintain this ratio in the good financial condition. In overall the liquidity management of the NIBL is progressive. This means that the bank is able to maintain in the good financial condition.

B. Assets Management Ratio

In aggregate, credit and advances to fixed deposits ratio are in increasing trend as per the above findings. The mean ratio is 3.2062 times during the research period. Beside that, the total credit and advances to total deposit ratio of NIBL is in increasing trend where the average mean ratio is 0.7482 times in the study period. Similarly credit and advance to total asset is not so fluctuating. Here, the average mean ratio is 66.05%. It shows that bank has capability in utilizing total assets in the form of credit and advances.

But the total non-performing assets to total assets ratio of NIBL is in decreasing trend. The mean ratio is 1.18 % . The ratio indicates the high contribution made by NIBL in lending and investing activities. Thus, credit management is in a good position.

C. Leverage Ratio

The Debt to equity ratio of NIBL is more during the study period. The average mean ratio is 13.31 times. Excess amount of debt capital structure results heavy burden in payment of interest. Risk of liquidation increase if the debt cannot be repay in the time. However, the analysis indicates that the bank is leveraged.

The Debt to assets ratio of NIBL is high or in other words, they have excessively geared capital structure. The average mean ratio in 5 years research period is 0.9287 times. It means almost 92.87% of total assets is financed by the outsider's' funds. It is seen that there is not much deviation in the ratio during the 5years study period. Here, total asset to net worth ratio is in decreasing trend. In overall study period the average ratio at that time is 14.33 times. It represents good condition of Total assets to net worth ratio.

D. Profitability Ratios

Profitability ratios are very helpful to measure the overall efficiency in operation of a financial institution. The total net profit to gross income ratio of NIBL is in increasing and decreasing trend. The mean ratio is 42.94 %. This means NIBL is able to obtain higher efficiency. Therefore, credit management is in good position of the bank. The total interest income to total income ratio of NIBL is in fluctuating trend. In the latest year 2008/09 ratio has increased to 1.5439 times. The mean ratio is 1.4584 times in the study period. The given ratio indicates the high contribution made by lending and investing activities. Similarly, the operating profit to loan and advances ratio of NIBL is also constantly changing. The highest ratio is 4.13% in the year 2005/6 and lowest ratio 3.191% in the year 2004/5. This shows the high profitability in 2005/6 and low profitability in 2004/5 through loan and advance of the bank. The average mean ratio over the period is 3.82%. This shows the better profitability position of the bank.

Again, return on credit and advances ratio of NIBL is in fluctuating trend. There is highest earning in 2006/7 and lowest earning capacity in 2004/5 from credit and advances. These show the little high earning capacity of NIBL through credit and advances and credit management is in good position. But the ratio has slightly decreased upto 0.0169 in the present year 2008/9.Whereas, the net profit to total assets ratio of NIBL is in increasing trend. The highest ratio is 0.0181 in 2006/7 and lowest ratio is 0.0141 in the year 2004/5. The mean ratio is 0.0167. This shows the normal earning capacity through asset utilization.

The Earning per share of NIBL is irregular throughout the study period. The highest EPS is RS 62.56 in year 2006/7 and lowest EPS Rs. 37.42 in year 2004/5. The average means EPS of NIBL Bank is Rs. 51.34 in the study period. This shows the better profitability in the study years. But the EPS has highly declined in the current year. Here, price-earning ratio earning of NIBL is in fluctuating trend. The highest price-earning ratio is 42.33 in year 2007/8 and lowest ratio 20.25 times in year 2004/5. The average mean ratio of the NIBL is 29.70 times in the study period. It represents high expectation of company in market and high demand of share. However, the ratio has declined in the year 2008/9 by 37.09 due to the decrease in market price and EPS which indicates reduce in the demand of the share.

E. Lending Efficiency Ratio

The loan loss provision to total credit and advances ratio of NIBL is in decreasing trend. The highest ratio is 3.11% in year 2004/5 and lowest ratio 1.59% in year 2008/9. The mean ratio of the study period is 2.48%. These indicate the good quality of assets in total volume of credit and advances. The ratio is continuously decreasing this indicates that bank is increasing its performance. Thus, credit management is in a good position. In the same way non-performing loan to total credit and advance of NIBL is also declining. The highest ratio is 0.0269 in the year 2004/5 and lowest ratio is 0.0058 in the year 2008/9. The average non-performing loan to total credit and advances ratio is 0.0176 during the study period. This ratio indicates the more efficient operating of credit management. But the interest expenses to total deposit ratio of NIBL is in increasing trend. The highest ratio is 3.61% in the year 2008/9 and lowest ratio is 2.48% in the year 2004/5. The average mean point of interest expenses to total deposit ratio is 2.87% during the study period. However, this ratio does not indicate higher interest expenses on total deposit. Commercial banks are dependent upon its ability to generate cheaper fund.

F. Statistical Tools

The correlation coefficient between deposit and credit and advances is 0.998. There is highly positive correlation between credit and advances and deposit collection. The coefficient of determination is 0.996, which depicts that 99.6% of credit has been explained by the deposit collection. It shows that increase in deposit highly lead to increase loan and advances. 'r' is greater than 6 P.E., this is the evidence of significant correlation between credit and deposit. This further reveals there is significant relationship between loan and advances and deposit.

Again, the coefficient of correlation between total deposit and total assets is 0.999. It also shows the extremely positive correlation. In addition, coefficient of determination of NIBL is 0.998. It means there is 99.8 percent of total assets is explained by total deposit. The correlation coefficient is significant because the correlation coefficient is more than 6 P.Er. The correlation coefficient between net profit and credit and advances is 0.992. This indicates is high positive correlation between credit and advances and net profit. The coefficient of determination is 0.9842, which means 9.842% of profit is explained by the loan and advance. Here, 'r' is greater than 6 P.E. which is the evidence of significant correlation between credit and deposit.

Similarly, the correlation coefficient between total Debt net profits of NIBL is 0.998, which implies there is perfectly positive correlation between total Debt and Total assets. In addition, coefficient of determination is 0.996. It means 99.6 percent of Assets is contributed by Debt. Obviously, this correlation is significant at all as coefficient of determination is higher than P.Error. Thus, it can be concluded that the degree of relationship between total debt and total assets of NIBL has highly positive correlation.

In contrary to all, the correlation coefficient between loan and advances and non-performing asset of NIBL is 0.0699. There is moderate positive correlation between credit and advances and non-performing assets. The coefficient of determination is 0.4886, which represents that 48.86 % of non-performing assets has been explained by the credit and advances. 'r' is smaller than 6 P.E. then there is evidence of insignificant correlation between Loan and advance and non-performing assets.

The trend of total deposit of NIBL is increasing smoothly. The rate of increment of total deposit for NIBL seems to be year by year. In the same way the trend values of credit and advance of NIBL is also rising. Therefore, it is suggested to increase credit and advance in the similar manner to make better profit. Again, total asset of NIBL is also in increasing trend. The rate of increment of Total Assets for NIBL seems to be moderate. It is beneficial for the company. The trend of total profit of NIBL is increasing as per the above study. The rate of increment of total Profit for NIBL seems to be aggressive in the projected year too. Therefore, the bank should regularly maintain this type of increment for its better enhancement.

CHAPTER - V

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Summary

The research is about the credit Management of Nepal Investment bank. In this chapter, summary conclusion and recommendation are included. All the summary and conclusion are made according to the obtained data from the analysis from different sources. Recommendation has been made which would be beneficial for the management of the bank and other stakeholder.

In the aspect of liquidity position, cash and bank balance reserve ratio shows the more liquidity position. Cash and bank balance to total deposit has fluctuating trend in 5 years study period. The average mean ratio is 0.1044 times in the study period. These all ratio shows that the bank is maintaining the good liquidity position. Here, cash and bank balance to current deposit is also fluctuating. The mean average calculation is 1.3283 times. This indicates that current cash and bank balance of NIBL is sufficient to meet the demand of current depositors. The average mean of cash and bank balance to interest sensitive ratio is 1.5216 times, which is in changing rate throughout the study period. It shows that the bank is able to continue good financial condition.

In the assets management ratio, credit and advances to fixed deposit ratio is in alternative trends. Its mean average is 3.2062 times at research period. In aggregate the ratio shows the better performance but credit and advances to total deposit position is minimum than the averages. NIBL bank has generally mixed or fluctuating trends of Credit and Advances to Total Assets ratio. The average mean ratio is 66.05%. It shows that bank has capability in utilizing total assets in the form of credit and advances. Whereas investment in credit and advances is done safely and without taking more risk. That's why assets management position of the bank shows better performance in the recent years.

A Non–performing asset to total assets ratio is decreasing trend the average mean ratio is 0.0118. The bank is able to obtain higher lending opportunity during the study period. Therefore, credit management of the bank is in good position In leverage ratio, Debt to equity ratio is diminishing and the average mean ratio for total debt to equity ratio is 13.31 times. Whereas, total debt to total assets ratio is 0.9287 times, which means 93% of the bank's assets are financed with debt, and only the remaining 7% of the financing comes from shareholders' equity. High total debt to total assets ratio possess higher financial risk and vice-versa. Inspite of that Total asset to net worth ratio of the bank is decreasing more rapidly. In overall study period the average ratio is 14.3375 times, it represents good condition of total assets to net worth.

In the aspect of profitability position, total net profit to gross income ratio of NIBL is in fluctuating trend. The mean ratio is 42.94% in the study period. The ratio indicates the high contribution made by lending and investing activities. Similarly, total interest income to total income ratio is also changing during the 5- years of study period. The mean ratio is 1.4584 times. The operating profit to credit and advances ratio of NIBL is in fluctuating trend but the return on loan and advances ratio is decreasing. Net profit to total assets ratio is slightly declining. However, the mean ratio is 0.0167. This shows the normal earning capacity through asset utilization. Here, Earning per share of NIBL is decreasing rapidly after the fiscal year 2006/07. In the same way Price earning ratio of NIBL Bank is also decreasing. This is due to the decrease in market price and earning per share. The average mean ratio is 29.70 times in the study period. It represents high expectation of company in market and high demand of share.

After analyzing the lending efficiency of the bank, the study shows that both loan loss provision to total credit and advances ratio and non-performing loan to total credit and advance ratio of NIBL is in declining trend. This indicates that bank is the more efficient in operating credit management and increasing its performance. Therefore, credit management of NIBL is in a good position. But in contrast ratio the interest expenses to total deposit ratio of NIBL is in increasing trend. The average mean point of interest expenses to total deposit ratio is 0.0287% during the study period. This states that bank is increasing interest in its deposit collection.

In statistical analysis, correlation analysis and trend analysis have been calculated. Here, all Correlation coefficient between total credit and total assets, Correlation coefficient between loan and advances and total deposit, correlation coefficient between net profit and loan and advances shows high degree of positive correlation between each other i.e., 0.998, 0.996 and 0.999 respectively. Similarly 'r' of all these correlation is greater than its 6 P.E which is the evidence of significant correlation. But in contrast, correlation coefficient between non-performing asset and credit and advances of NIBL is 0.0699. This indicates moderate positive correlation between credit and advances and sectorwise lending. Here, 'r' is smaller than 6P.E. This is the evidence of insignificant relationship between loan and advance and non-performing assets.

Trend analysis tools are done for future forecasting. Trend analysis for total deposit is calculated to see future deposit trend of the bank. The trend of total deposit of NIBL is in increasing trend. Similarly, the trend values of credit and advances, total assets and total Profit of NIBL is also increasing each year. But the rate of increment of total profit of NIBL seems to be aggressive.

5.2 Conclusion

The study is conducted on credit management of Nepal Investment Bank, which is one of the leading banks in Nepal. NIBL is maintaining a rapid growth over this period. NIBL has earned a net profit of Rs 901 million for the fiscal year 2008/9 and this comes to be 77.328% more as compared to the previous fiscal year which is very excessive. NIBL earned operating profit of Rs 1477 million for the fiscal year 2008/09 that means 68.60% more than previous fiscal year. Similarly, total deposit is Rs 46698 million for the fiscal year 2008/09 and this refers to be 83.24 more in comparison to the same period in the previous fiscal year. On the other hand, total loan is Rs 36827 million which is increased by 74.75% compared as previous fiscal year. This means NIBL is able to maintain efficient investment on credit as according to the collection of deposits.

Nepal Investment bank has adequate liquidity position. It shows that banks investment is appropriate. The liquidity position of NIBL is in fluctuating trend during the study period. Currently many banks and other financial institution are functioning in Nepal to collect deposits and invest money somewhere in the investigable sectors. Remittance has also helped to increase the amount of deposit in bank. On the other hand, due to political crisis economic sectors have been badly affected. Beside that the country's economics has also been highly influenced by the world economic crisis. Most of the projects have been withdrawn due to security problem. So, banks are utilizing their fund in home loan, auto loan and share loan etc in consumer banking. But recently NRB has also squeezed the policy on such loan.

Here, credit and advances to fixed deposits ratio and the credit and advances to total deposit ratio of NIBL are in increasing trend overall. The mean ratio is 3.2062 times and 0.7482 times in the study period. Similarly, credit and advance to total asset is slightly changeable. The average mean ratio is 66.05%. In contrast total non-performing assets to total assets ratio of NIBL is in decreasing trend. The mean ratio is 1.18 %. All these ratios clarifies that the bank is able to obtain higher lending opportunity. These indicate the high contribution made by lending and investing activities. Thus, credit management is in a good position. The Debt to equity ratio of NIBL is in decreasing trend during the study period. The average mean is 13.31 which indicate that the bank is leveraged because the claim of the outsiders exceeds than those of the owners over the bank assets. The Debt to assets ratio of NIBL is high or in other words, they have excessively geared capital structure. The analysis shows that 92.87% of total assets of NIBL is financed by the outsiders' funds. Besides, total asset to net worth ratio of the bank is in decreasing trend during the 5-years of study period.

Profitability ratios are very helpful to measure the overall efficiency in operation of every financial institution. Here, the total net profit to gross income ratio of NIBL is in increasing and decreasing trend. The mean ratio is 42.94 which mean the bank is able to obtain higher efficiency. Therefore, credit management of the bank is in good position.

Inspite of this, Loan loss provision to total credit and advances ratio of NIBL is in decreasing trend. This shows NIBL is maintaining good quality of assets in total volume of loan and advances. Both total non-performing assets to total assets ratio and non-performing loan to total credit are also in decreasing trend which refers NIBL is more efficient in operating credit management. But interest expenses to total deposit ratio of NIBL is increased in fiscal year 2008/09. Thus, the ratio does not indicate higher interest expenses on total deposit.

The trend of Total Deposit, Total Asset, Loan and Advance and Total Profit of NIBL is rising in the following years of the study. Equity portion of the bank is slightly increasing in the recent years due to issue of directives by Nepal Rastra

Bank (NRB) that entire bank to increases its paid up capital. Every commercial has to meet 2000 million paid up capitals till 2070 B.S. NRB has issued this direction to provide more safety to the customers. NIBL has currently Ordinary Shares 24090977 of Rs. 100 each, 2409097700 paid up capital. Therefore, bank is continuously increasing their capital every year.

5.3 Recommendation

These findings may be useful for them who are concerned directly or indirectly with the credit management of the bank especially reference to Nepal Investment Bank. On the basis of all the analysis and findings of the study, following suggestions and recommendation can be drawn out.

- Generally, banks have to maintain liquid assets. The current ratio of the NIBL is considerable. NIBL can be regarded to be in good liquidity position. The liquidity position affects external and internal factors such as prevalent investment situations, central bank requirements and so on. Considering the growth position of financial market, the lending policy management capabilities, strategic planning and fund flow situation, bank should maintain enough liquid assets to pay short-term obligations. So, it is recommended to NIBL to maintain sound liquidity position.
- Cash and bank balance of NIBL is moderate. Banks efficiency should be increased to satisfy the demand of depositor. Low level of cash and bank balance does not provide return to the bank. Therefore, some percentage of the cash and bank balance should be invested in profitable sectors.
- NIBL is suggested to make policy to ensure rapid identification of delinquent loans. Bank should make immediate follow-up of loan until it is recovered. The recovery of loan is very challenging as well as important part of the bank. Therefore, bank must be careful to strengthen credit collection policy.

- Government securities such as Treasury bills, Development bonds, saving certificates etc. are riskless investment alternatives because they are free of default risk as well as liquidity risk and can be easily sold in the market. In this research study, it has found that the NIBL has made some amount of fund in Government securities. But it is recommended to invest more funds in Government securities instead of keeping them idle.
- NIBL should avoid extending credits merely based on oral information presented at the credit interview. Historical, financial and trade records should be obtained for proper assessment of the proposal.
- NIBL is recommended to follow the NRB directives which will helps to reduce credit risk arising from defaulter, lack of proper credit appraisal, defaulter by blacklisted borrowers and professional defaulter. Government has established credit information bureau, which will provide suggestion to the commercial bank. So NIBL is suggested to collect as much information about borrowers and only lend to non-risky area and to non-defaulter.
- NIBL bank should be fulfilling some social obligations by extending their resources to rural areas and promoting the development of poor and disadvantages group. In order do so they should open their branches in the remote area with the objective to provide the banking services. The minimum deposit amounts should be reduced.
- The economic liberalization policy adopted by Nepal Government has created an environment of cutthroat competition in the banking sectors. In this context NIBL bank is suggested to formulate and implement sound and effective financial and non-financial strategies to minimize their operational expenses to meet required level of profitability.
- International relations of the NIBL is satisfactory in comparison to others banks. Due to tough competition the bank should make negotiation with the international banks to increase its transactions in the international areas.

- According to NRB directives, all the commercial bank should increase the capital up to Rs 2000 million by 2070 B.S. NIBL is increasing the paid up capital on regular basis to meet NRB directive. Either capitalization of profit, declaration of Bonus share or right share issue can make the increment in capital.

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APPENDICES

Appendix - I

Trend Analysis of Total Deposit

Year(x)	Total Deposit	X	XY	X^2
2004/05	14255	-2	-28510	4
2005/06	18927	-1	-18927	1
2006/07	24489	0	0	0
2007/08	34452	1	34452	1
2008/09	46698	2	93396	4
Total No. (n) = 5	**Y=138821**	**X = 0**	**XY=80411**	**X^2 =10**

Source: Annual Report of NIBL

Let trend line be

Y = a + b x……………………. (I)

Where,

x = X - Middle year

$$a = \frac{\Sigma Y}{n}$$

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

Therefore,

a= 27764.2 and b= 8041.1

Whereas,

Trend Analysis of Total Deposit (2009/10 to 2011/12)

Year(x)	X = x-2006	Trend Value(Y=a+bx)
2009/10	3	51887.50
2010/11	4	59928.60
2011/12	5	67969.70

The equation straight line trend is

Yc=27764.2+8041.1X

Appendix - II

Trend Analysis of Loan and Advance

Year(x)	Loan and Advances	X	XY	X^2
2004/05	10453	-2	-20906	4
2005/06	13178	-1	-13178	1
2006/07	17769	0	0	0
2007/08	27529	1	27529	1
2008/09	36827	2	73654	4
Total No.(n) = 5	**Y= 105756**	**X = 0**	**XY=67099**	**X^2 =10**

Source: Annual report of NIBL

Let trend line be

Y = a + b x……………………. (I)

Where,

x = X - Middle year

$$a = \frac{\Sigma Y}{n}$$

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

Therefore,

a= 21151.2 and b= 6709.9

Whereas,

Trend Analysis of Total Loan and Advance (2009/10 to 2011/12)

Year(x)	X = x-2006	Trend Value(Y=a+bx)
2009/10	3	41280.90
2010/11	4	47990.80
2011/12	5	54700.70

The equation straight line trend is

Yc=21151.2+6709.9X

Appendix - III

Trend Analysis of Total Asset

Year(x)	Total Asset	X	XY	X^2
2004/05	16391	-2	-32782	4
2005/06	21330	-1	-21330	1
2006/07	27591	0	0	0
2007/08	38873	1	38873	1
2008/09	53010	2	106020	4
Total No. (n) = 5	**Y=157195**	**X = 0**	**XY=90781**	**X^2 =10**

Source: Annual report of NIBL

Let trend line be

Y = a + b x……………………. (I)

Where,

x = X - Middle year

$$a = \frac{\Sigma Y}{n}$$

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

Therefore,

a= 31439.00 and b= 9078.10

Whereas,

Trend Analysis of Total Asset (2009/10 to 2011/12)

Year(x)	X = x-2006	Trend Value(Y=a+bx)
2009/10	3	58673.30
2010/11	4	67751.40
2011/12	5	76829.50

The equation straight line trend is

Yc=31439+9078.10X

Appendix - IV

Trend Analysis of Net Profit

Year(x)	Net Profit	X	XY	X^2
2004/05	232.15	-2	-464.30	4
2005/06	350.53	-1	-350.53	1
2006/07	501.40	0	0	0
2007/08	696.73	1	696.73	1
2008/09	901.00	2	1802.00	4
Total No. (n) =5	**Y =2681.81**	**X=0**	**XY = 1683.9**	**X^2 =10**

Let trend line be

Y = a + b x……………………. (I)

Where,

x = X - Middle year

$$a = \frac{\Sigma Y}{n}$$

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

Therefore,

a= 536.36 and b= 168.39

Whereas,

Trend Analysis of Net Profit (2009/10 to 2011/12)

Year(x)	X = x-2006	Trend Value(Y=a+bx)
2009/10	3	1041.53
2010/11	4	1209.92
2011/12	5	1378.31

The equation straight line trend is

Yc=536.36+168.39X