CHAPTER - I
INTRODUCTION

1.1 Background of the Study

Credit risk management is one of the most important functions of a financial institution and the composition of loans 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.

Credit risk management is the heart of commercial banking; consequently the formulation and implementation of lending policies are among the most important responsibilities of directors and management. Well formulated lending policies and careful lending practices are essential if a bank is to perform its credit. Credit management affects on the company's profitability and liquidity so it is one of the crucial decisions for the financial institutions. The banks take almost care in analyzing the creditworthiness of the borrowing customer to ensure that the interest and the principal amount on loans are timely recovered without much trouble and legal process. A sound lending policy is essential for the good performances of the bank and further to attain economic objectives directed towards acceleration of the development. Lending policy should be carefully analyzed and the banks should be careful while performing its credit creation effectively and to minimize the risk factor.

The return of any banks basically depends upon its sound lending policy, lending procedure and investing its fund in different securities and different sectors of market. A sound fund mobilizing policy is not only prerequisite for bank profitability but also crucially significant for the promotion of commercial saving of backward country like Nepal (Joshi, 2004:2).

Liquidity refers to availability of liquid assets or that state of position of a bank that pronounces its capacity to meet its entire obligation. It refers to the capacity of bank to pay cash against deposits. People deposit money at the bank in different accounts with the confidence that the bank will repay their money when they need. To maintain such confidence of the depositors, the bank must keep this point in mind while investing its excess fund in different securities at the time of lending. So that it can meet current or short - term obligation when they become due for payment (Baxley, 1987:38)

Bank should always know the purpose of loan demanded by a customer because if the borrower misuse the loan granted by the bank he will never able to repay interest and principal. In order to avoid such circumstances, loans should be allowed to the selected borrowers and it should demand all the essential detailed information about the scheme of project in which the bank is lending for. Finance companies must keep in mind the overall development plans of the nation and the credit policy of the concerned authority i.e. central bank (Joshi, 2004:35-37).

Banking plays a significant role in the development of nations. Bank is a financial institution which primary classes in borrowing and lending. Modern bank prefers varieties of functions. Therefore, it is difficult to decide the function of a modern bank because of their complexity and versatility in operation. Various authors have defined the word ‘Bank’ in different ways. “A commercial bank is dealer in money and it substitutes for money such a cheque or bills of exchange, it also provides a variety of financial service” (Britannica, 1985:600).

Banks are those financial institutions that offer the widest range of financial services especially credit, savings, and payment services and perform the wisest rage of financial services of any business firm in the economy. As a financial institution a bank links the surplus unit with the deficit unit of the economy. Banks today provide a number of financial services to their customers. This multiplicity of bank’s functions and services has led to banks being labeled "financial departmental stores" and to such advertising slogans as your bank – a full service financial institution. Customers can satisfy virtually every type of financial services needs at one financial institution in one location.

Financial intermediaries are those institutions, which mediate between the savers in the community and the users of the savings. Commercial bank is also one of the financial intermediaries. Commercial bank plays an important role in directing the affairs of the economy in various ways. The operations of commercial banks record the economic pulse of the economy. The size if their transaction actions mirror the economic happening of the country .Example is mass failure of commercial bank in 1930 reflected the phenomenon of several global depressions in the world. Commercial banks have played a vital role in giving a direction to economy's development over time by financing the requirements of trade and industry in the country.

The world business scenario has been changing very fast. Most countries around the globe have efficiently eliminated state monopolies of business. The volume of international trade has been increasing year after year. Due to globalization many international companies have been actively doing their business across the national boundaries. This competitive market barrier is becoming the major problem for the survival. Now due to these factors, financial institutions face significant change in a time of new alignments in domestic market and increased international competition.

1.1.1. Meaning of Commercial Bank:

Simply, a commercial bank is known as organize corporate business house that receives and holds deposits or fund from other and makes loans or extends credit and transfer funds by written orders of depositors or customer. A bank is an institution for keeping, lending and exchanging etc money. Generally Bank is known as Central bank, Commercial bank, Development bank, Exchange bank, Saving bank, Cooperative bank, Merchant bank, Housing bank, Equipment bank, Infrastructure bank and Mutual fund. As a whole Bank refers to Commercial Bank at present. A bank is a major player among of financial institutions. A bank involves in a process of collecting scattered money and to help its mobilization in different sectors according to need of customers. Bank helps to develop saving habit of people, which in-turns help to make other people to invest for their business. Banking loan helps to invest in industrial sector, commercial sector, production sector, trade & commerce and agriculture sector as well. Bank also helps to develop international business by initiating as a mediator to exporter & importer. This way banks help to strengthen the national development.

A commercial bank refers to such a type of bank which primarily established to perform the functions of accepting deposits and providing loans to customers. Deposits accepted by commercial banks are in the form of saving, current and fixed deposits. Advancing credit in the form of short term credit as well as long-term credit. Bank also perform other subsidiary function like safety vault, bank overdraft, documentary credit, traveler's cheques, payment of bills, purchase of government bond and security, make guarantee hire purchasing, issue of draft and letter of credit(L.C), exchange of foreign currency, home banking etc. They also render or provide innumerable number of subsidiary services.

Banking plays significant role in the economic development of a country. Commercial banks are those financial institutions mainly dealing with activities of the trade, commerce, industry and agriculture that seek regular financial and other helps from them for growing and flourishing. The objectives of commercial banks are to mobilize idle resources into the most profitable sector after collecting them from scattered sources. Bank accepts deposits from the public, which are repayable on demand or on short notice. They cannot afford to invest their funds in long-term securities or loans. They provide the working capital required by trade and industry in their day-to-day transactions. They grant loans in the form of cash, credits and overdrafts. They need to keep appropriate liquidity so that they can provide cash at the same time if needed.

The source of finance is most essential element for the establishment and operation of financial institute. Profit oriented institutions usually obtain these sources through ownership capital, public capital through issue of shares and debentures, borrowing through banking institution as credit or loan. Now days, the essential sources of the organization for financial supporting is the credit, overdrafts and others provided by banking institution. Now a day inter banking loan is maim source of every bank and financial institution. Its helps to fulfill short term demand of cash any bank must maintain adequate cash and bank balance to meet its day-to-day management of cash resources for remote contingencies. All the commercial banks are operates under rules, regulations and direct supervision of Central Bank.

The bank is an indispensable part for the upliftmen of a country. The financial institution is a vast field comprising of banks, financial companies, insurance companies, co-operatives, stock exchange & 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. Banking industry has acquired a key position in mobilizing resources for finance and social economic development of a country. Bank assists both the flow of goods and services from the producers to the consumer and the financial activities of the government. Commercial banks have been contributing a lot towards the promotion and expansion of both export and import trade. They provide both pre-shipment and post shipment finance to exporters.

Nowadays banking field is being very tough competition. So every bank launches verity of services and new technology. They start their operation with automated system, which could easily attract the elite group of business community due to their prompt served modern management. In this way banks are successful to bring healthy competition among banks, increase in foreign investment, promote and expand export-import trade, introduce new techniques and technologies. In recent times, many commercial banks are providing consumer-financing facilities also. They provide direct housing loan, home equity loan, vehicle loan, education loan, loan for household appliances hire purchase etc. in this way the bank provide advance technology and quick service to cope and sustain competitive global banking environment.

1.1.2. Origin of Bank in Nepal:

The words BANK was initiate form Latin words Bancus, French words Banque and Italian words Banca, which means refer that a Bench where sitting over there invest, exchange and keep record of money and cash. History tells us that initiation of bank in eastern side of world was mentioned in economics of Kautilya and Manusmirti. Likely in west banking system was started from ‘Bank of Venice, 1157 Bank of Barcelona. Actually banking system was inaugurated after established of Bank of England.

The concept of the banking has been developed from the ancient history with the effort of ancient goldsmiths who developed the practice of storing people’s gold and valuable treasures under such arrangement the depositors would leave their gold for safekeeping and given a receipt by the goldsmith. Whenever, the receipt was presented the depositors would get back their gold and valuable treasures after paying a small amount as fee for safekeeping and saving.

The Banking system in Nepal was developed gradually from the past. The history states that King Gunakamadev had received loans from the public in the 8^{th} century to renovate "Kathmandu City". The foundation of banking system in Nepal was established by a businessperson named Shankhadhar Shakha in 10^{th} century. He had paid back all the loans taken from the public and since then Nepal Sambat had stated in our country. This tells us that the system of lending money and paying back started long time back in our country. Later on in the 14^{th} century, King Jayasthiti Malla divided the people into 64 castes according to their occupation, amongst them 'TANKADHARI' one is that dealt with the lending of money to the public. Main objective of the 'TANKADHARI' was to earn profit by providing money as a loan to people and taking certain interest rate. Prime Minister Ranadeep Singh established 'TEJARATH ADDA' in the 1933^{th} B.S In order to protect people from higher interest rate, The 'TEJARATH ADDA' was responsible for providing loans to the people working in the government offices based on the security and the public based on the collateral they deposited in the 'TEJARATH ADDA' was not to earn profit, it charged its creditors with a low interest rate of 5% per annum. It was only subjected to lend but did not accept deposits, hence it cloud not be counted as a bank. However, it can be said that 'TEJARATH ADDA' was the main financial institution that led to the development of modern banking system into the country.

The actual banking system of Nepal starts from the establishment of Nepal Bank Limited (NBL) as the first modern bank in our country Nepal in B.S. 1994 Kartik 30^{th} according to the Nepal Bank Act 1993. NBL was the first bank to be established in Nepal and prior to this, there was no such organized banking system in the country. Therefore year B.S. 1994 is said to be the Golden year for modern banking system in Nepal.

After two decade Nepal Rastra Bank established in 14th Baisakh, 2013 BS as a being central bank of Nepal under "Nepal Rastra Bank Act 2012" to perform the function of the central banking in Nepal. It established to promote, control, direct, supervision and manages banking activities and to in the country under the provision of Brussels International monetary conference (IMC). Main objective of Nepal Rastra Bank was to make economic assistance, issue and exchange of Nepalese note and currency, good govern of banking system etc. and use of own Nepalese note in whole country Nepal.

Nepal Industrial Development Corporation (NIDC) was established In 2016 BS under NIDC act 2016.it established for promote industrialization in Nepal. Main objective of NIDC was to provide technical and financial assistant for industry and commerce. Subsequently another fully state owned commercial bank "Rastriya Banijya Bank" was established on 10th Magh, 2022 BS under Rastriya Banijya Bank act 2021 which was the second commercial bank of Nepal. With the establishment of RBB, a noticeable progress could be seen in banking industry of Nepal. It brought a revolution in the banking industry. People could easily make business transactions with other countries. Both the banks have majority of shares owned by the government of Nepal. Rastriya Banijya Bank is fully owned by the government. In 2024 magh 7th BS Agriculture Development Bank (ADB) was established under Agricultural Development Bank act 2024. ADB was established combined merge of cooperative bank and bhumisudhar Bachat Corporation.

1.1.3. Profile of sample Bank

A. Nepal Investment Bank Limited (NIBL)

Nepal Investment Bank Ltd. (NIBL), (previously known as Nepal Indosues 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 managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. Besides commercial banking services, the bank also offers industrial and merchant banking services. The bank has six branches in Kathmandu Valley at the following locations: Putalisadak, New Road, Pulchowk (Lalitpur), Thamel, Kalimati, and Seepadol (Bhaktapur). In addition, the bank also has eleven other branches outside Kathmandu Valley in Banepa, Narayangarh, Birgunj, Janakpur, 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. Recently bank has opened its new branch outside the valley in the Birtamod. Investment Bank Limited has always been committed to providing 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 every one can open its own saving Account in Re. 1.00.

B. Nabil Bank Limited.

Nabil Bank Limited, the first foreign joint venture commercial bank of Nepal, started operations in July,

1984. It was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, the bank provides a full range of commercial banking services through its 27 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil Bank Ltd, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Highly qualified and experienced team of the bank manages day-to-day operations and risk management. Bank is fully equipped with modern technology, which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Banglore, India, Internet banking system and Tele-banking system. NABIL Bank Limited is providing full-fledged commercial banking services to its clients.

From its inception period in 1984 as the first joint venture bank, to commence operations in the Kingdom of Nepal, the bank have been a leader in terms of bringing the very best international standard banking practices, products and services to the kingdom. Today, mission of the bank is to be the Bank of 1st Choice to all of its stakeholders and customers. For the customers, it want to be the first choice in meeting all of the financial requirements, for shareholders, it want to be the investment of choice, for regulators, it want to be an example of a model bank, it want to be an outstanding corporate citizen in all the communities, it work in and finally, it want to be the first choice as an employer with whom to build a career. To achieve this mission, it has a core set of values by which we live. The values are C.R.I.S.P., i.e. Customer Focused, Result Oriented, Innovative, Synergistic and Professional. They are committed to live our values everyday in everything we do, for it is, these values that make us uniquely NABIL Bank Limited.

The bank is a full services bank providing an entire range of products and services, starting with deposit accounts in local and foreign currency, Visa and Master-Card denominated in rupees and dollars, Visa Electron Debit Cards, Personal Lending Products for Auto, Home and Personal loans, Trade Finance Products, Treasury Services and Corporate Financing. Main aim is to be able to meet customer's entire gamut of financial requirements that is why it prides us in being 'Your Bank at Your Service'

1.2. Focus of the Study

Present situation of Nepalese market is not so good for any kind of business, banking business is totally focus on lending business, which is naturally a risky business, as per present situation finance companies are playing the vital roles in the growth of Nepalese economy. So what kinds of precautions are taken by bank for its survival is very serious subject. As loan is the core area of the commercial banking. It plays the significance impact on the finance companies liquidity and profitability. But the most worry factor in banking industry is the total management of loan. Due to the excessive amount of non-performing assets in commercial bank, there is the wide spread suspicion on the performance on the commercial bank.

So the main focus point of this study is as follows.

1. What types of risk are existing in the banking business?
2. What is the technique of credit risk management?
3. What is the framework of risk management?
4. What central bank plans to control the commercial bank?
5. What is the current condition of finance companies regarding the credit risk position?

1.3. Statement of the Problem

As financial institutions are becoming main sources of mobilizing the financial resources, the large amount of commercial bank funds are concentrated on total loan portfolio. Therefore, the success and failure of the bank largely depend on the total credit risk management of finance companies. In order to analyze the credit risk management of commercial bank following research problems are formulated.

1. What is the status of credit portfolio of commercial bank in terms of?

a) Deposits

b) Interests Income

c) Net Profit

d) Total assets

2. What is the credit management status of commercial bank in general?

3. What are the total compositions of credit of commercial bank?

4. What is the loan loss provision status that has been established by commercial bank?

5. What are the effects on bank's total performance by the recent regulations relating to loan classification and loan loss provisioning?

7. What is the effect that has been caused by non-performing assets of commercial bank on their profitability and liquidity managements?

1.4 Objectives of the Study

The main objective of the study is to evaluate the credit risk management of commercial bank in Nepal. In order to achieve the basic objective, the following other objectives are

- To evaluate the status of the loan portfolio of the banks.
- To evaluate problems and weakness in credit risk management.
- To review the prevailing laws rules and regulation enforced by Nepal Rastra Bank and assess its impact on profitability and liquidity of bank.
- To offer suitable suggestions based on findings of this study.

1.5 Significant of the Study

Loan is the main product of commercial bank. It plays the significance impact on the financial institution's liquidity and profitability. But the most worry factor in banking industry is the total management of loan. Due to the excessive amount of non-performing assets in finance companies, there is the wide spread suspicion on the performance on the commercial bank.

Nepal Government has just enacted the debt recovery act and approved the long waited regulation on debt recovery to speed up the financial reforms in the financial sector. As the proposed study is focused on the total aspect of credit risk management of commercial bank, it would giant information to speed up the process.

The proposed study would be of enormous assistance to the executives of commercial bank on how they should manage the different composition of loans. The study would be important as it provide theoretical as well as conceptual framework of different aspect of credit risk management.

1.6 Limitations of the Study

The study has been subject of the following limitations.

a) The study has been based on the secondary data provided by Nepal Rastra Bank.

b) The study is based on data and information provided by commercial bank.

c) The study has been limited to the viewpoint of the credit risk management.

d) The study covers the time period of 2003to 2008

e) Differences macro indicators of the global as well domestic economy, which has the impact on the total performance of credit management of commercial bank, have been ignoring.

1.7. Organization of the Study

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

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.

Chapter-III: Research Methodology

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

In this part, focus has been made on the conceptual framework and the review of literature that is relevant to the investment Credit Risk Management of Nabil Bank Limited and Nepal Investment Bank. Review of literature is based on available literature in the field of research. Every possible effort has been made to grasp knowledge and information that is available from libraries; document collection center helps to take adequate feed back to broaden the information to study. The first part of the chapter includes the conceptual framework and the second part includes the review of various related studies.

I) Conceptual Review

II) Review of Related Studies

2.1 Conceptual Review

2.1.1 Meaning of Risk

Risk refers to uncertainty on the investment faced by the investors. It is the possibility that actual outcomes may be different from those expected. Risk can be defined as the possibility of deviation of the actual return from the expected return. Kupper (2000) defines risk as the volatility of corporation's market value. Risk management, on the other hand, is the process of measuring or assessing risk and then developing strategies to manage the risk. In general, the strategies employed include transferring the risk to another party, avoiding the risk, reducing the negative affect of the risk, and accepting some or all of the consequences of a particular risk.

2.1.2 Types of Risk Faced by Commercial banks

Risk and uncertainties are the integral part of banking business. In banking sector, risk refers to the possibility that the bank will turn into liquidation. There are several inherent risk in banking which can be classified into three broad categories i.e. Credit Risk, Market Risk and Operational Risk.

Primarily, risk in the banking context is credit risk through lending, which occupies about 60% of total risk portfolio. Therefore, this study is mainly focused on the credit risk. However, the brief introductions of Market Risk and Operational Risk have also been included. The major sources of risk in banking business are briefly discussed as below:

i. Credit Risk

Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms**.** Anthony Saunders defines the credit risk as "the risk that the promised cash flows from loans and securities held by FIs (Financial Institutions) may not be paid in full". Credit risk involves inability or unwillingness of a customer or counterparty to meet commitments in relation to lending, trading, hedging, settlement and other financial transactions. Santomero (1997) views credit risk is generally made up of transaction risk or default risk and portfolio risk. The portfolio risk in turn comprises intrinsic and concentration risk. The portfolio risk depends on both external and internal factors. The external factors are the state of the economy, wide swings in commodity/equity prices, foreign exchange rates and interest rates, trade restrictions, economic sanctions, Government policies, etc. The internal factors are deficiencies in loan policies/administration, absence of prudential credit concentration limits, inadequately defined lending limits for Loan Officers/Credit Committees, deficiencies in appraisal of borrowers' financial position, excessive dependence on collaterals and inadequate risk pricing, absence of loan review mechanism and post sanction surveillance, etc.

Another variant of credit risk is counterparty risk. Counterparty risk comes from non-performance of a trading partner. The non-performance may arise from counterparty's refusal to perform due to an adverse price movement caused by systematic factors, or from some other political or legal constraint that was not anticipated by the principals. Diversification is the major tool for controlling nonsystematic counterparty risk.

Counterparty risk is like credit risk, but it is generally viewed as a more transient financial risk associated with trading than standard creditor default risk. In addition, counterparty's failure to settle a trade can arise from other factors beyond a credit problem.

So, the goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Bank should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization.

ii. Market Risk

Market risk is the risk incurred in the trading of assets and liabilities due to changes in interest rates, exchange rates, and other asset prices. So, Market risk is exposure to the uncertain market value of the firm's asset. Major factors affecting Market risk are:

- Liquidity Risk
- Interest Rate Risk
- Foreign Exchange Risk

A. Liquidity Risk:

Anthony Saunders says **"**Liquidity risk arises whenever financial institutions' liability holders, such as depositors or insurance policyholders, demand immediate cash for their financial claims". When liability holders demand cash immediately – that is, put their financial claims back to the FI – the FI must either borrow additional funds or sell off assets to meet the demand for the withdrawal of funds. An institution is said to have liquidity if it can easily meet its liability holders' demand for cash either because it has cash on hand or can otherwise raise or borrow cash.

In banking sector, Liquidity risk is created when banks hold different sizes of assets and liabilities and mismatch occurs in maturity of the assets and liabilities. Extreme illiquid asset in bank may result in bankruptcy where as excess liquid asset may carry interest rate risk over the period of time. As it is fatal risk, prudent liquidity management is the primary function of banking sector. Liquidity management is also to make sure that expected shortfall amounts are funded at a reasonable cost, ensure excess fund are invested properly with reasonable returns and without carrying any interest rate risk to the bank

B. Interest Rate Risk (IRR*)*

Interest rate risk is the risk incurred by a financial institution when the maturities of its assets and liabilities are mismatched. Interest Rate Risk is the probability of decline in earnings, due to the adverse movements of the interest rates in various markets. The applicable interest earned on assets and liabilities and hence net interest margin is the function of market variables and it may get changed overnight or over a period of time according to the market situation. Changes in the interest rate can significantly alter net interest income depending on the mismatch of assets and liabilities held by the bank. Changes in interest rates also affect the market value of bank's equity.

C. Foreign Exchange Risk:

Foreign exchange risk is the risk that exchange rate changes can affect the value of a bank's assets and liabilities denominated in foreign currencies. The bank is also exposed to foreign exchange risk, which arises from the maturity mismatching of foreign currency positions. In the foreign exchange business, banks also face the risk of default of the counterparties or settlement risk. While such type of risk crystallization will not cause principal loss, banks may have to undertake fresh transactions in the cash/spot market to replace the failed transactions. Thus, the bank may incur replacement cost, which depends upon the currency rate movements.

iii. Operational risk

Operational risk *is* associated with the problems of accurately processing, settling, and taking or making delivery on trades in exchange for cash. It also arises in record keeping, processing system failures and compliance with various regulations. The Basel

Committee on Banking Supervision, Basel September (2000), defines operational risk as "the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events."

Operational risk arises from inadequate control systems, operational problems and breaches in internal controls, fraud and unforeseen catastrophes leading to unexpected losses for a bank. Many of the operational-risk-related functions such as regulatory compliance, finance management, frauds, IT, legal, and insurance are carried out by the staff and thus human resources itself becomes a cause for operational risk

2.2 Review of NRB Directives

The main focus of this study is to analyze the directives of Nepal Rastra Bank related to Credit Risk Management of Commercial Banks. The directives issued from time to time are one of the tools used by the central bank to control and monitor the commercial banks. In the present context, the directives are issued by NRB quite regularly. In 2005, NRB, by using the rights given by the Nepal Rastra Bank Act 2058, has issued unified directives to regulate all three categories of financial sectors in Nepal to ensure that the banking industry functions as per the international standard and also to have more effective control mechanism for overall financial sector. In this new unified directive, loan classification and provisioning of loans of financial institutions are mentioned on E. Pra. Directive No. 2/061/62 with the objective to minimize the possible risks associated with credits extended by financial institutions in the form of overdraft, loans and advances, bills purchased and discounted. Therefore, as per this new unified directive No. 2, banks should classify the loans and advances on the basis of aging of principal amount into the following 4 categories.

2.2.1. Classification of Loans and Advances:

a. Pass Loan

Loan and advances which principal amount payment are not due yet or if the due has not exceeded the due date for a period of 3 months are included under this category. Such loans and advances are defined as Performing Loan.

b. Substandard Loan

All the loans and advances, which due principal amounts have exceeded the due date for a period of 3 months to 6 months are included in this category.

c. Doubtful Loan

All the loans and advances, which principal amount are due for a period of 6 months to 1 year, are included under this category.

d. Bad Loan

All the loans and advances which principal amount has crossed the due date for a period of more than 1 year as well as the advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

- Pass Loans and advances are defined as Performing Loans.
- Loans and Advances falling under the category of Sub-standard, Doubtful, and Bad Loan are classifieds and defined as Non- Performing Loan..

Notes:

- There is no restriction to grade the loans and advances from low-risk category to high-risk category. For e.g. Substandard loans and advances can be graded to the Doubtful or Bad Loans Category; and the Doubtful loans and advances can be graded under the Category of Bad Loans on the basis of the internal discretion of the bank's management.
- The term "Loans and advances" also includes the Bills Purchase and Discounts.

Additional arrangements in respect of Pass Loan

The loans and advances that are fully secured by gold, silver, fixed deposit receipts and Nepal Government securities shall be included under "Good loan/Pass Loan" category. However, where the fixed deposit receipt or government securities or NRB Bonds is placed as secondary collateral for security against loan for other purposes, such loan has to be classified on the basis of ageing. Loans against Fixed Deposit Receipts of other banks shall also qualify for inclusion under Pass Loan.

If the working capital loans of one year maturity period is renewed that can be graded into pass loan category. In working capital loans, if the interest payments are not timely made, such loans can be graded as per the due days.

Additional arrangements in respect of "Bad Loan"

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

i) Insufficient collateral.
ii) If the borrower has been declared bankrupt.
iii) The borrower is absconding or cannot be found
iv) Purchased or discounted bills are not realized within 90 days from the due date; and if the non-funded facilities like Letter or credit, guarantee, and other liabilities turn into funded facilities and is not repaid within 90 days.
v) Misuse of Loan.

Note: Here misuse of Loans means if the loan has not been used for the original purpose for which it was taken, the business for which is the loan is taken is not in operation, the incomes from the concerned business are used for other purposes instead of repaying of loan, and if the misuse of the funds are proved on inspection by the inspector or by the auditor.

vi) Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation.
vii) Loans provided to the borrowers who are blacklisted by the Credit Information Center.
viii) If the project or business for which the loan is provided is not in the condition of operating or if it is closed.
ix) Credit card loan not written off which is due since 90 days.

Additional arrangements 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 overdue installment.

Note: Term Loan means the loans with the maturity period of greater than 1 year.

Letter of Credit and Guarantees

If non-funded facilities such as letter of credit, guarantees and other liabilities turn into funded liabilities and have to be paid by the financial institutions, these credits have to be categorized into "Pass Loan" up to 90 days and if not paid within 90 days then treated as "Bad Loan".

Rescheduling and restructuring of Loan

1. In respect of loans and advances falling under the category of Substandard, doubtful or loss, banks may reschedule or restructure such loans upon receipt of a written plan of action from the borrower citing the following reason:

a) Evidence of adequate collateral and documentation regarding Loans.
b) An evaluation of the borrower/ enterprise's management with particular emphasis on efficiency, commitment and high standards of business ethics.

In the written plan of action, the borrower should mention the internal and external causes contributing to deterioration of the quality of loan.

The reduced degree of risk inherent to the borrower/ enterprise determined by analyzing its balance sheet and profit and loss account in order to estimate recent cash flows and to project future one, in addition to estimate recent cash flows and to project future ones, in addition to assessing market conditions.

Note: Rescheduling means to extend the loan payment period that have been borrowing by the customer.

Restructuring means to change the loan type and terms and conditions and including the changes in loan payment schedule.

2. To reschedule or restructure the loans, it is mandatory that at least 25% of past due interest up to rescheduled or restructured date should be paid by the borrower. If all interests have been recovered before renewal of loans, it can be categorized into Pass Loan.

2.2.2. Loan Loss Provisioning

1. The loan loss provisioning on the basis of the outstanding loans and advances and bills purchases are classified as per the new unified directives 2005, shall be provided as follows:

Classification of Loan	**Loan Loss Provision**
Good	1 Percent
Substandard	25 Percent
Doubtful	50 Percent
Bad	100 Percent

Loan loss provision set aside for performing loan is defined as “General Loan Loss Provision” and Loan Loss provision set aside for Non-Performing Loan is defined as “ “Specific Loan Loss Provision”.

Where the banks provide for loan loss provisioning in excess of the proportion as required under directives of NRB, the whole amount of such additional provisioning may be included in General Loan loss Provision under the supplementary Capital.

2. Loan Loss Provisioning in respect of reschedule, restructured or swapped loan

a) For rescheduled/restructured loan, loan loss provision should be at least 12.5%.

b) In Case of rescheduling or restructuring or swapping of insured or guaranteed priority sector credit, the loan loss provisioning shall be provided at one fourth of the percentage mentioned in clause (a)

c) If interest and principle of rescheduled / restructured loans have been served regularly for two years, such loans can be converted into “Pass Loan” Category.

3. Priority sector or deprived sector loans which are not insured should be provisioned as per above clause no. 1.

4. Additional Provisioning in the case of Personal Guarantee Loans

Where 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 category of Pass, Substandard and Doubtful, in addition to normal loan loss provision applicable for the category, an additional provision by 20 percent 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, Substandard and Doubtful category respectively.

2.2.3. Directive No 3 (Single obligor limit)

Single obligor limit refers to the limit of credit facility to a single person, a firm, a company or a group of borrowers. That means, there is certain limit beyond which a bank cannot provide credit facilities to a borrower or the borrowers who comes under the same group. NRB has provisioned single obligor limit while providing credit facilities by the bank. According to unified directive No 3, the single obligor limit for the fund-based loan is 25 % of core capital where as for non-fund based loan is 50 % of core capital.

The main reason of this provision is to protect bank from suffering losses due to investing in single client. In another word, this directive is intended to diversify the concentration risk.

Loan Loss Provision for minimizing concentration risk

According to NRB Directives, if any firm, person or group of borrowers is provided the credit more than the limit of single obligor, the bank should have to make 100 % provision for the loan exceeding the limit.

Sector wise lending

NRB has issued a directive for the commercial banks to send sector wise lending report on a monthly basis. The main objective of this report is to identify the different sectors in which the bank has extended its credit.

Security wise Lending

NRB has issued a directive for the commercial banks to send security wise lending report on a monthly basis. The main objective of this report is to identify the different securities on the basis of which the bank has extended its credit.

Loan Concentration on Single Sector

According to NRB directive No. 3, if the commercial bank has extended the credit facilities more than 100 % of core capital in single sector, such loan should have to be approved by the board of directors.

2.2.4. Directive No. 1-Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is the proportion of Capital Fund or Shareholders equity on the total risk weighted asset of a bank. In other words, it is the capital portion, which is used to finance the asset. The total risk weighted asset, on the other hand, includes both on & off balance sheet items, which has been rated with certain percentage of risk. The risk weight of asset ranges from zero for cash, balance at NRB and investment in government bonds to 100 % for loans and advances. The higher the risk weighted asset means lower will be the capital adequacy ratio as CAR is the ratio between Capital fund and Risk Weighted Asset.

According to unified directive 2005, the capital fund includes two types of capital,

A. Primary Capital

Primary capital refers to core capital of a bank, which includes the share capital employed by the shareholders and all the reserve maintained by a bank. Primary capital includes:

Table 2.1

Primary Capital

1) Paid Up Capital
2) Share Premium
3) Non-Redeemable Preference Share
4) General Reserve Fund
5) Retained Earnings
6) Capital Redemption Reserve
7) Net Profit after Provision, Tax & Bonus (Current Year)
8) Capital Adjustment Fund
9) Other Free Reserve
10) General Reserve Fund

B. Supplementary Capital

Supplementary Capital refers to all the reserves bank has made for specific purpose, such as loan loss, foreign exchange loss etc. The supplementary capital includes:

Table 2.2

Supplementary Capital

1) General Loan Loss Provision (Good Loans)
2) Asset Revaluation Reserve
3) Hybrid Capital Instrument
4) Unsecured Subordinated Term Debt
5) Exchange Equalization Reserve
6) Additional Loan Loss provision
7) Investment Adjustment Reserve

C. Capital Fund

Capital Fund includes both the primary and supplementary capital. It can be stated in equation as below:

Capital Fund = Primary Capital + Supplementary Capital

Risk Weighted Asset, on the other hand, refers to the all the on and off balance sheet assets, which has provided certain percent of risk weight that ranges from zero for cash, balance with NRB, investment in government securities to 100 percentage for loans and advances, fixed asset etc.

Risk Weighted Asset includes both the on and off balance sheet assets. On balance sheet asset includes three types of risk-weighted asset (i.e. 0 %, 20 % and 100%). Zero percentage risk weighted assets include cash and bank balance, gold (tradable), investment in NRB and Government Bonds, loan against own bank's fixed deposit receipts and government bonds, Interest receivable on National Saving Bonds. 20 % risk weighted asset includes balance with local and foreign banks, loan against other bank's fixed deposit receipts, money at call, loan against internationally rated bank's guarantee and other investment on internationally rated banks. 100 % risk weighted asset includes investment on shares and debentures, loans and advances, fixed assets, other investment, all other assets (excluding tax paid and accrued interest receivable.)

Off balance sheet assets includes four types of risk-weighted asset (i.e. 0 %, 20%, 50 % and 100%). Bills collection has 0 % risk. Letter of credit with maturity period less than 6 months and guarantee against counter guarantee of international rated foreign banks have 20 % risk. 50 % risk weighted asset includes letter of credit with maturity period more than 6 months, bid bond, underwriting and performance bond. 100 % risk weighted items include advance payment guarantee, financial guarantee, other guarantee, irrevocable loan commitment, contingent liability on income tax and acceptance and other contingent liability.

The Capital Adequacy ratio of a bank is calculated as below:

a. Capital Adequacy Ratio for Core Capital

$$\text{Capital Adequacy Ratio} = \frac{\text{Core Capital}}{\text{Total Risk Weighted Asset}}$$

b. Capital Adequacy Ratio (CAR) for Total Capital Fund

$$\text{Capital Adequacy Ratio} = \frac{\text{Capital Fund}}{\text{Total Risk Weighted Asset}}$$

According to NRB directive 2005, the statutory Capital Adequacy Ratio (CAR) for core capital is 6 %, where as CAR for total capital fund is 12 % for fiscal year 2005/06.

2.3 Review of Related Studies.

2.3.1 Review of Articles and Journals

Kupper (2000) has made a study to identify the different types of risk and prescribes the method to handle those risks. He has identified three types of risk in the banking business (i.e. credit risk, market risk and operation risk) According to his study, credit risk has almost 70 % of shares in total banking risks. The typical credit risk share of total capital is 80% in Wholesale Banking, 50 % on Personal Banking and 10 % on financial Market.
He has presented the role of a banks' risk management function in the context of the need to break the vicious cycle of risk. The cycle refers to the process by which a bank assumes uneconomic risks and by definition, key large losses. As a consequence, the risk appetite of the bank is reduced, lending and trading risks are foregone and the bank loses market share. In turn, the bank adopts an aggressive marketing strategy to regain market share and the cycle starts over. His vicious cycle aptly describes the risk taking practices observed in the industry time and time again.

Rana (2001) alerts commercial banks of the directives issued by Nepal Rastra Bank on 2002. The article gives bird's eye view of major changes made in the new directive and suggests measures to be taken by commercial bank to comply with the new directives. Mr. Rana has highlighted the following points in his article:

- Capital adequacy ratio for commercial bank prescribed by Nepal Rastra Bank is even higher than the requirement in India.
- Classification of loans and advances into four category instead of six categories prescribed earlier.
- The newly prescribed change in income recognition system will require most of the banks to either upgrade or change their banking software.

- Banks will find it very difficult to maintain records of all persons, who are included in the definition of family/ relative.

In order to comply with the new NRB directives, he has suggested following measures:

- Upgrade/ change the banking software, which facilitates generating numerous reports required by Nepal Rastra Bank.
- Foresee capital adequacy position for a number of years ahead and initiate measures for increasing the capital if required.
- Review and revise overall credit polices to address new directives governing loan classification and loan loss provisioning.
- Strengthen banks' monitoring and follow-up department". Time has come to inculcate financial discipline to the customers. A number of interaction programs should be organized with credit customers so that NRB's new directives could be explained to them.
- Update their record with Credit Information Bureau (CIB). Also Banks should timely submit required return to CIB for its effective functioning.

Sharma (2002) states that NRB has instructed to then Chairman of Machhapuchchhre Bank to step down from his position, as chairman. The decision was taken after the central bank's Monitoring and Supervision Department found out that the chairman was the Managing Director of another Company that was blacklisted by the Credit Information Center Ltd. (CIC). The decision goes by the latest directives of the central bank, which clearly states that no person involved in the firms blacklisted by the CIC, will be allowed to hold a sensitive and responsible post in the Board of Directors of Financial Institutions.

Irony to this action of NRB, the then chairman claims that the blacklisting of the said company was done only in 1998 and he was associated with that company only until 1996. Hence, he opined that he need not step down of his position as chairman and that NRB was wrong in instructing to him to do so.

The policy of NRB seems to be vague. The existing policies might be ambiguous as a result of which people try to manipulate as per their personal requirement. However it can be said that NRB has initiated directives, which have control on the promoters and other senior officials of commercial banks, but it is still to be found whether such directives are consistently followed. This article failed to give a clear picture on what exactly happened after the instruction of NRB. This article highlights the importance of compliance with the directives issued by NRB.

Lawrence (2006) has taken Basel II as a big opportunity for risk management. There are three stages in the credit process: the first is the simple risk control of the business-avoiding being over concentrated in any one sector, estimating the probability of defaulting and assessing recovery. In emerging markets, such as China, collection and recovery processes have to be better understood. The legal governance structure of liens has to be vastly improved and this will come in time with the new legal regulations being legislated. However, banks cannot afford to count on the legal system as has been painfully learnt from the Netting cases or the sovereign jurisprudence. These are operational risks that must be taken account of.

The second phase is the link between economic capital and return. Clearly banks would like to set minimum rates of return they expect to earn on their portfolios after provisioning. The link between economic profit and risk is the next stage in advancing the practice of credit risk management.

Finally, the third stage is when risk management is used as a strategic management tool to align Risk Adjusted Return on Economic Capital (RAROC) with ROE.

In most emerging markets, where many commercial banks have been protected from foreign banking invasion, the landscape is now changing. In Malaysia, new legislation will allow regional banks to bank locally and in China, the new foreign bank regulations will allow investment banks, commercial banks and fund managers to enter the market, putting stress on the current “big four” oligopolistic structure. It is precisely in emerging markets where Basel II is an invaluable tool to go through the three stages set out above. This regulation is thus an important catalyst to implement all processes including analytic modeling – this includes better predictability of probability of default, exposure at default and loss given default - the business architecture that goes with it including the right corporate governance, the organization, the risk monitoring and reporting.

Banks that fail to have deep understanding of credit risk management will continue being caught in the time warp of the old banking paradigm and be targets for acquisitions by larger banks that have stronger risk management policies in place. The only key to survival and sustainable success is to reengineer and reform the risk strategy that maximizes shareholder value. It would thus be fallacious for the CEO to think of Basel II as just a compliance issue but he should rather use it as an opportunity to really get on top of using risk management as a cornerstone of strategic decision making.

2.3.2 Review of Theses

Pandey (2002) has carried out in his study "Credit Risk Management of Himalayan Bank Limited with reference to other Commercial Bank" with the objectives to find out the impact of changes in NRB directives on the performance of the commercial banks and to find out whether the directives were implemented or not. According to his findings the directives if not properly addressed have potential to wreck the financial system of the country. The directives in themselves are not that important unless properly implemented. The implementation part depends upon the commercial banks. In case commercial banks are making such huge profit with full compliance of NRB directives, then the commercial banks would deserve votes of praise because they would then be instrumental in the economic development of the country. All the changes in NRB directives made impacts on the bank and the result are the followings:

- Increase in operational procedures of the bank, which increase the operational cost of the bank.
- A short term decreases in profitability, which result to fewer dividends to shareholders and less bonus to the employees.
- Reduction in the loan exposure of the bank, which decreases the interest income but increase the protection of the depositor’s money.
- Increase protection to the money of the depositors through increased capital adequacy ratios and more stringent loan related documents.

- Increase demand from shareholder’s contribution in the bank by foregoing dividends for loan loss provisions and various other reserves to increase core capital.

All the aforesaid result lead to one direction the bank will be financially healthy and stronger in the future. HBL will be able to withstand tougher economic situation in the future with adequate capital and provision for losses. The tough time through which the bank is undergoing at present will prevail only for a couple of years but in the long run, it will be strong enough to attract more deposits and expose itself to more risk with capital cushion behind it. The quality of the asset of the banks will become better as banks will be careful before creation credit. Ultimately, the changes in the directives will bring prosperity not only to the shareholders but also to the depositors and the employees and the economy of the country as a whole.

Pandey has made his research on the impact on changes in new directives. In his study, he has studied only the provision related to loan provisioning and capital adequacy. However, besides Loan Loss Provision and capital adequacy, the other factors like concentration risk, sector-wise lending risk can further be discussed. A study on the organizational structure or management techniques applied for the proper implementation of NRB directives and for management of credit risk can also be made.

Shrestha (2003) in her thesis “Impact and Implementation of Nepal Rastra Bank (NRB)’s Guidelines (Directives) on commercial banks. A study of Nabil Bank Ltd. and Nepal SBI Bank Ltd.” has tried to find out the following things:

- Impact of NRB directives on commercial banks.
- Whether the directives are actually implemented and are being monitored by NRB or not.

She has stated that both NABIL and Nepal SBI are implementing the NRB directives.
She concludes that all the changes in NRB Directives made both positive and negative impacts on the commercial banks. Even though this study is limited to only two sample

(i.e. Nabil Bank and Nepal SBI Bank, among the entire population, it clears the new directives issued by NRB make good impact to more than bad impact on the various aspect of the banks. It can be seen that the provision has been changed and the increased provisioning amount has decreased the profitability of commercial banks. Apart from, loan exposure has been cut down to customers due to the borrower limits have been brought down by NRB. Therefore reduction in loan amount result to decrease the interest incomer from loans, which will decrease the profits of the banks in coming years. Decreasing profitability push towards lesser dividends to the shareholders and less bonus to employees. Not only the negatives sides but also there are positive sides of new directives. Recently the problems of banks are increasing operating cost and decreasing loan amount resulting decrease in profits of the banks but it shows it is only for short time there because the directives are more effective to protect the banks from bad loans, which protect the banks from bankruptcy as well as protection of deposits of depositors. Increase in capital adequacy ration strengthen the banks financial position, loan related provision will made safety of loans except the risk reducing provision would protect the bank from liquidation. Above all it can be concluded that newly issued directives are more effective than previous one although it has brought some problems towards banks. To increase the decreasing profits of the banks, they should research the alternatives like more investment in other business, bank should adopt new technology according to the demand of time and must not depend on only interest income for profit.

In this thesis as well, researcher has studied the impact of NRB directive, especially related to loan loss provisioning, on selected banks. There exists a gap regarding the study of management teams formed by the commercial banks to manage the credit risk besides those NRB directives. Similarly, commercial banks compliance in regard to those directives as well as banks policy and procedure to manage credit risks can be studied further.

Regmi (2004) conducted a thesis “A study on credit practices of joint venture commercial banks with reference to Nepal SBI Bank Ltd. And Nepal Bangladesh Bank Ltd.”
The basic objectives of this thesis are:

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

The major findings of this study are

- In terms of liquidity ratio, current ratio of NSBL is higher than that of NBBL. The ratio of liquid fund to current liability of NSBL is higher than NBBL. This shows that NBBL has less consistency than NSBL. The ratio of cash and bank balance to deposit of NSBL is higher than that of NBBL. Cash and bank balance to interest-sensitive deposit measures the liquidity risk arising from fluctuation of interest rate in the market. The ratio of cash and bank balance to interest sensitive deposit of NSBL is higher than NSBL. NSBL has poor position due to high volume of interest sensitive liability in deposit mix.

-The ratio of loans and advances to total assets of NBBL is higher than NSBL. Likewise mean ratio of loans and advances to total deposit of NBBL is higher than NSBL. The mean ratio of investment to loans and advances and investment of NSBL is higher than that of NBBL. Likewise the ratio of total investment to total deposit of NSBL is higher than that of NBBL.

-The ratio of credit to government enterprises to total credit of NBBL is higher than that of NSBL. The mean ratio of credit tot bills paid and discount to total credit ratio o NBBL is higher than that of NSBL. NSBL has contributed 95.91% in private sector loan, 2.51% in government sector loan and 1.56% in bills paid and discounts. Likewise NBBL has contributed 90.83% in private sector loan, 4.29% in government sector loan and 4.84% in bills paid and discounts.

-Among the various measurement of profitability ratio return on equity (ROE) and earning per share (EPS) reflects the relative measure of profitability. The performance of NBBL is better than NSBL. Return 0on equity and earning per share of NBBL are higher than that of NSBL in all years.

-Co-efficient of correlation between deposit and loans & advances of both banks have positive value. Also co-efficient of correlation between total income and loans &

advances of both bank have positive relation. Coefficient of correlation between net profit and loans & advances of NSBL is negative as other variables like increase in interest suspense and loan loss provision affects net profit. Coefficient of correlation between net profit and loans & advances of NBBL is positive.

This study is mainly focused on the lending practices and the volume of credit in comparison to the deposits. Therefore, the major gap in this research is study of the risk involved in the lending practices or the study of credit risk. Therefore, further study on the risk involved in creating credit can be made.

Shrestha (2005) on "A study of Non performing Loan & loan loss provision of Commercial Bank, A case study of NABIL, SCB and NBL" has made study about a part of credit risk associated with those banks. The main objectives of her study were:

- To find out the proportion of non-performing loan in the selected commercial banks.
- To find out the factors leading to accumulation of non performing loan in commercial banks
- To study and analyze the guidelines and provisions pertaining to loan classification and loan loss provisioning.
- To find out the relationship between loan and loan loss provision in the selected commercial bank.
- To study and the impact of loan loss provision on the profitability of the commercial banks.

The major finding in her study was that the NBL has the highest portion of the loan in total asset followed by NABIL and SCBNL. She concludes that the SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NABIL and SCBNL. Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision.

Likewise, the NBL has the highest portion of Loss loan followed by NABIL and SCBL. This study is more concentrated on non-performing loans; however, there exists lots of areas in credit risk management where further research is called for. In context of credit risk, collateral risk, concentration risk, organization risk management system can be studied.

Subba (2006) has carried out in his research "Study to Credit management of commercial banks (i.e. Machchhapuchhre Bank Ltd. and Kumari Bank Ltd.)". to analyze how the selected commercial banks have managed different types of risk in this competitive Nepalese banking Industry. The major objective of this thesis was:

To analyze the following types of risk of selected commercial banks in Nepal

a. Credit Risk
b. Market Risk
c. Operation Risk.

The major finding of his study was that in commercial banks, minimizing the risk is the major challenge. For combating the risk, both the banks have taken several measures. One of the major measures is capital adequacy ratio. The capital adequacy ratio depicts that both KBL and MBL has higher CAR than statutory requirement. He concludes that:

- For credit risk management, both banks have Credit Policies Guidelines (CPG). Similarly, NPL is regularly monitored by both the banks on regular basis and provisioning is done on quarterly basis by categorizing the loan as per NRB guidelines. Similarly, sector wise and security wise lending is being analyzed by these banks on monthly basis.
- Gap analysis is the major tool for managing the liquidity risk. The top management analyzes the gap between asset and liabilities and makes decision to make adjustment for it. Further, the top management decides how much liquid asset is needed to be kept in the bank. Treasury and finance department of these banks continuously manage the CRR in NRB to ensure that statutory requirement is met.
- Gap analysis of both types of asset and liabilities (i.e. Rate Sensitive and Fixed Rate) is required for the interest rate risk management. Besides, analysis of cost of

fund, yield on loan & spread is made continuously in these banks to ensure that banks have competitive interest rate, which is profitable for the banks.

- In regard to operational risk, the major steps banks are taking to reduce it are preparing and implementing the different operational guidelines and policies & frequently monitoring their compliance. Most of these polices are prepared as per NRB guidelines. Similarly, employees' training is also the major tools for minimizing the operation risk in these banks.

For minimizing the loss arising due to occurrence of the above risks, capital and reserve have been maintained by these banks within the standard prescribed by NRB. However, the trend of Capital Adequacy ratio of these banks suggests that both the banks need to increase their capital fund, which is possible mainly by issuing shares, debentures or preference share. The major gap in this study is the focus on the credit risk. This research has been made on the study on different types of risk including market risk and operational risk. However, the credit risk covers the major portion of the total risk i.e. almost 60% of the total risk. Therefore, additional research can be made for the detailed study of credit risk and the organizational structure of the commercial banks to manage the credit risk.

Shrestha (2007) on “A study of Credit risk management of Nepalese commercial banks comparative study between kumari bank ltd. and machhapuchchhre bank ltd.” has made study about a part of credit risk associated with those banks

The study aims to examine and analyze how the selected commercial Banks have managed mainly credit risk in this competitive Nepalese banking industry. The specific objectives of this study are:

- To examine the credit risk position of the selected commercial banks in Nepal (KBL and MBL).
- To analyze the credit risk management system and practices of KBL and MBL.
- To evaluate the organizational structure of KBL and MBL to manage the credit risk.

From the above analyses of credit risks, following major findings have been obtained:

1. The major problems in credit risk are related to the broad areas of concentrations, credit processing, and market- and liquidity-sensitive credit exposures. From the analysis of primary data, it is found that the majority of the respondents of both banks have favored with the bank's single sector, which is upto 10 % of total loan. However, the sector wise lending analysis portrays that KBL and MBL have extended up to 19.88 % and 30.12% of loan in a single sector respectively in FY 2005/06. Similarly, the exposure on the single sector of KBL and MBL exceeds 10 % of total loan in 3 and 5 sectors respectively. The single sector loan to core capital shows that the ratio crossed 100% in 2 sectors of both KBL and MBL. In regard to concentration risk, KBL has more risk in manufacturing and others sector where as MBL has more risk on manufacturing and Whole seller and sectors as the single sector credit to core capital ratio in these sectors is more than 100 %. MBL has very high loan concentration on manufacturing sector of 199.35% of the core capital. From the personal interview of the key respondents it was found that both banks have been extending credit in those highly concentrated sectors after getting approval from the board of director. This clarifies that concentration risk is the main source of credit risk for KBL and MBL.
2. Similarly, lack of systematic and thorough credit processing is also the major source of credit risk in these banks. The problems in credit processing include lack of thorough credit assessment, absence of testing and validation of new lending techniques, subjective decision-making by senior management**,** lack of effective credit review process, failure to monitor borrowers or collateral values, and failure of banks to take sufficient account of business cycle effects etc. Likewise the market-sensitive and Liquidity-sensitive exposures also increase the credit risk of these banks. Similarly, it is found that both banks have their own rating system of the credit client and the sectors. Both banks have ranked 1^{st} to the manufacturing sector where as the Agriculture sector has been ranked the last on the basis of priority. KBL has chosen others sector and real estate business in 2^{nd} and 3^{rd} position respectively, where as the MBL has just opposite preference in these sectors.
3. Likewise, KBL has ranked Character, Collateral and Capacity of borrower first, second and third criterion for granting credit where as MBL ranked Character,

Capacity and Capital first, second and third priority respectively. The hypothesis test on the preference of the bank's staff also proves that there is no significant difference between observed and expected frequency of ranking.

4. From the analysis of lending against various collaterals, it has been found that both the banks have lent highest amount of loan against the movable/ immovable property. The average lending over 5 years period of KBL and MBL against movable/ immovable property is Rs. 2,987 million and 2,673 million respectively. Similarly, the lending against others securities (i.e. other than prescribed by NRB) is second position for both banks, whereas the lending against guarantee of local banks and finance companies is in third position. However, MBL has also granted loan without any collateral. The average amount of loan without collateral is Rs. 3 million annually, which is in the 6th place on ranking. On the contrary, KBL has not granted any loan without backing any collateral.

2.4 Research Gap

From the review of various literatures, it has been found many research work have been done on the study of NRB Directives and its compliance and analysis of credit management through loan loss provision, non-performing loans and capital adequacy; however, very few thesis have been found on the credit risk management which is the most important aspect of the banking sector. So, the researcher can make further research on liquidity, asset management, profitability and other risk and the actual practices followed by the management of Nepalese commercial banks from its own side besides the NRB directives to manage and control the credit risks etc.

Hence, the researcher had attempted to fill this gap by measuring the credit risk of NABIL and NIB by studying their credit risk management system. This study also aims to find out the organizational structure of NABIL and NIB for the proper implementation and compliance of NRB Directives and to manage the credit risk.

CHAPTER - III
RESEARCH METHODOLOGY

Research in common parlance refers to a search for knowledge. The Webster international Dictionary gives a very inclusive definition of research. Research is a careful critical inquiry or examination in seeking facts and principles diligent investigation in order to ascertain something

This chapter deals with the research methodology employed in the entire aspect of the study. Research methodology is the process of arriving at solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of facts and figures. The research has been done on topic "Comparative study on investment policy of Nabil Bank Ltd. and Nepal Investment Bank Ltd.” In order to reach and accomplish the objectives of the study, different activities were carried out. In other words, research methodology refers to the various methods of practices applied by the researcher in the entire aspect of the study. This chapter includes the research design, population and sample, nature and sources of data and analysis of data.

3.1 Research Design

A Research Design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 1992:25). Research design is the plan, structure and strategy of investigation conceived to obtain answers to the research question and to control variances. To achieve the objectives of the study, descriptive an analytical research design has been used. Some statistical and financial tools have also been applied to examine facts and descriptive techniques have been adapted to Comparative study on credit risk management of Nabil Bank Ltd. and Nepal Investment Bank Ltd.” The study is based on secondary data. So the descriptive and analytical research designs have been used.

3.2 Population and Sample

The method of selecting for study 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 of part of the population on the basis of which a judgment or inference about the universe is made. There are a lot of mushrooming financial institute, Which are regarded as a population of the study. But it is not possible to cover the entire financial institute under the study. There are altogether 78 finance companies are operating in Nepal. Therefore, only two Banks have been taken as sample.

Sample Bank

- Nabil Bank Limited
- Nepal Investment Bank limited

3.3 Sources of Data

There are two sources of data collection. The research is based on secondary source of data. All the adequate data are collected from secondary sources.

This refers to data that are already used and gathered by others. Secondary data are mostly used for this research purpose. Therefore, the major sources of secondary data are as follows

- Annual Report of concern Bank.
- Internet and E-mails.
- NRB directives.
- Economy survey of Government of Nepal and Ministry of finance.
- Newspaper, journals, articles and various magazines.
- Dissertation of Central Library of T. U. and Library of Shanker Dev Campus.

3.4 Data Collecting Procedures

The annual reports of the concerned banks were obtained from their head office and their websites. The main source of data are annual report of concern financial institute. NRB publication, such as Banking and Financial Statistics Economic Reports, Annual Reports of NRB etc .has been collected from the personal visit of concerned department of NRB at Baluwatar. Besides, a details review materials are collected from the library of Shanker Dev Campus and central library of T.U.

3.5 Tools and Techniques used

"The analysis of data consists of organizing, tabulating, and performing statistical analysis" (Wolf and Pant: 127)

In this study, various financial and statistical tools have been used to achieve the objective of the study. According to the pattern of data available, the analysis of data will be done. The various tools applied in this study have been briefly presented as under:

- Financial tools
- Statistical tools

3.6 Financial Tools

Financial performance is analyzed through the use of two important tools. The financial tool is one of the most important tool, which includes ratio analysis and the other one financial statement analysis have been used in this study. Financial tools are used to examine the financial strength and weakness of bank. Although there are many financial ratios, only selected ratios are used in this study.

3.6.1 Analysis of Financial Ratio

The techniques of ratio analysis in of considerable significance in studying the financial stability, liquidity, profitability and the quality of management of the business and industrial concerns, the important ratios that are studied for this purpose are given below.

3.6.1.1 Ratio Analysis

Ratio analysis is a technique of analysis and interpretation of financial statement. To evaluate the performances of an organization by creating the ratios from the figure of different accounts consisting in balance sheet and income statement is known as ratio analysis. Five types of ratios have been analyzed in this study, which are related to fund mobilization of the banks. They are presented below:

A. Liquidity Ratio

Liquidity ratio measures the ability of the firm to meet its current obligations. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Liquidity provides honor strength health and prosperity to an organization. It is extremely essential for an organization to meet its obligations as they become due. A firm should ensure that it has not lack of liquidity and also that it is not too much highly liquid.

i) Current Ratio: This ratio shows the bank's short-term solvency. It shows the ratio of current assets over the current liabilities. This ratio can be computed by dividing the total current assets by total current liabilities which can be presented as:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Higher ratio indicates the strong short-term solvency position and vice-versa.

ii) Cash and Bank Balance to Total Deposits Ratio: - Cash and bank balance is said to be first line defense of every bank. The ratio between the cash and bank balance and total deposit measures the ability of a bank to meet the unanticipated call on all types of deposit. Higher the ratio greater will be the ability to meet the sudden demand of deposit. But every ratio is not desirable since bank has to pay interest on deposit. This also maximizes the cost of fund to the bank.

$$\textit{Cash and Bank Balance to Total Deposits Ratio}\,\mathrm{X}\frac{\textit{Cashand Bank Balance}}{\textit{Total Deposits}}$$

Where,

Cash and bank balance is composed up of cash on hand including foreign cheques and other cash item; balance with domestic banks and aboard. Deposits include current, saving, fixed money at short call notice and other types of deposits.

iii) Cash and Bank Balance to Current Assets Ratio: - This ratio shows the bank's liquidity capacity on the basis of cash and bank balance that is the most liquid assets. High the ratio indicates the bank's ability to meet the daily cash requirements of their customer deposits and vice versa. But the high ratio is not preferred as the bank has to pay more interest on deposit and will increase the cost of fund. Low ratio is also very dangerous, as the bank may not be able to make the payment against the cheques presented by the customers. We have,

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

iv) Investment on Government Securities to Current Assets Ratio: - This ratio is used to find out the percentage of current assets invested on government securities, treasury bills and development bonds. We can find out as:

$$Inv.on\,Gvt.\sec urities\,to\,Current\ Asset\ Ratio\ \text{X}\frac{Investmenton\,Govt.Securities}{Current\ Assets}$$

Where**,**

Investment on Government Securities involves treasury bills and development bonds etc.

B. Assets Management Ratio:

"A set of ratio which measure how efficiently a firm is managing its assets and whether or not the level of those assets is properly related to the level of operation. In this study this ratio is used to indicate how effectively the selected banks have arranged and invest their limited resources. The assets management ratios measure how effectively the firm is managing its assets. These ratios are designed to answer this question; does the total amount of each type of assets as reported on the balance sheet seem reasonable or not? If a firm has excessive investments in assets, then its capital cost will be unduly high and its stock price will be suffer" (Brigham, 1989).

i) Loan and Advances to Total Deposits Ratio: - This ratio is calculated to find out how successfully the selected banks are utilizing their collections or deposits on loan and advances for the purpose of earning profit. We have,

$$\text{Loan and Advances to Total Deposits Ratio} \; X \frac{\text{Loan and Advances}}{\text{Total Deposits}}$$

ii) Total Investment to Total Deposits Ratio: - Investment is one of the major sources of earning profit. It shows how properly firm's deposit has been invested on government securities and shares and debentures of other companies.

$$\text{Total Investment to Total Deposits Ratio} \; X \frac{\text{Total Investment}}{\text{Total Deposits}}$$

iii) Loan and Advances to Total Working Fund Ratio: - This ratio shows the ability of selected banks in terms of earning high profit from loan and advances. Loan and advances to working fund ratio can be calculated by dividing loan and advances amount by total working fund.

$$\text{Loan and Advances to Total Working Fund Ratio} \; X \frac{\text{Loan and Advance}}{\text{Total Working Fund}}$$

iv) Investment on Government Securities to Total Working Fund Ratio: - Investment on government securities to working fund ratio shows how much part of total investment is there on government securities in percentage, it is calculated for this purpose by following formula:

$$\text{Investment on Govt. Securities to TWF Ratio} \; X \frac{\text{Investmenton Govt. Securities}}{\text{Total Working Fund}}$$

C. Profitability Ratio:

This ratio is related to profit of the banks is essential for the survival of the bank, so it is regarded as the engine that drives the banks and indicates economics progress. It calculated to measure the overall efficiency of the banks.

i) Return on Loan and Advances Ratio: - Return on loan and advances ratio shows how efficiently the banks have utilized their resources to earn good return from provided loan and advances. This ratio is computed as,

$$Return\ on\ Loan\ and\ Advances\ Ratio\ \text{X}\frac{Net\ \mathrm{Pr}\,ofit / Loss}{Loan\ and\ Advances}$$

ii) Return on Total Working Fund Ratio: - Return on total working fund ratio measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the bank's working fund is well managed and efficiently utilized. Maximizing taxes, this in the legal options available will also improve the return. We have,

$$Return\ on\ Total\ Working\ Fund\ Ratio\ \text{X}\frac{Net\ \mathrm{Pr}\,ofit}{Total\ Working\ Fund}$$

iii) Total Interest Earned to Total Working Fund Ratio: - This ratio reflects the extent to which the banks are successful in mobilizing these total assets to acquire income as interest. This ratio actually reveals the earning capacity of commercial banks by mobilizing its working fund. Higher the ratio higher will be the income as interest. We have,

$$Total\ Interest\ Earned\ to\ TWF\ Ratio\ \text{X}\frac{Total\ Interest\ Earned}{Total\ Working\ Fund}$$

iv) Total Interest paid to Total working Fund Ratio: - This ratio measures the percentage of total interest expenses on total working fund and vice-versa. This ratio is calculated as, Total Interest paid to Total Working Fund Ratio $X \dfrac{Total\ Interest\ Paid}{Total\ Working\ Fund}$

D. Risk Ratios:

Commonly, risk means chance or possibility of loss, uncertainty which lies in the business transaction of investment management. When a firm wants to bear risk and uncertainty, profitability and effectiveness of the firm is increased. This ratio checks the degree of risk involved in the various financial operations. For this study following risk ratios are used to analyze and interprets the financial data and investment policy.

i) Liquidity Risk Ratio: - The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the liquid assets and they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity of need. This ratio is low if funds are kept idle as cash balance but this reduces profitability, when the banks makes loan, its profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

$$Liquidity\ Risk\ Ratio = \frac{Cash\ and\ Bank\ Balance}{Total\ Deposit}$$

ii) Credit Risk Ratio: - Bank utilizes its collected funds in providing credit to different sectors. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. Generally credit risk ratio shows proportion of non-performing assets in the total investment plus loan and advances of a bank it is computed as:

$$Credit\ Risk\ Ratio = \frac{Total\ Investment\ \Gamma\ Loan\ and\ Advances}{Total\ Assets}$$

3.7 Statistical Tools

Under this heading some statistical tool such as coefficient of correlation analysis between different variables, trend analysis of deposit, loan and advances, net profit and EPS are used to achieve the objective of the study.

A. Average/Mean

An average is a single value related from a group of values to represent them in someway, a value, which is supposed to stand for whole group of which it is a part, as typical of all the values in the group. There are various types of averages. Arithmetic mean (AM, Simple & Weighted), median, mode, geometric mean, harmonic mean are the major types of averages. The most popular and widely used measure representing the entire data by one value is the AM. The value of the AM is obtained by adding together all the items and by dividing this total by the number of items.

Mathematically:

Arithmetic Mean (AM) is given by,

$$\bar{X}\ \mathrm{X}\frac{X}{n}$$

Where, $\bar{X}$ = Arithmetic mean

$\sum x$ = Sum of all the values of the variable X

n = Number of observations

B. Coefficient of variation

The coefficient of variation reflects the relation between standard deviation and mean. The relative measure of dispersion based on the standard deviations known as coefficient of variation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the CV. It is used for comparing variability of two distributions; the CV is defined as,

$$CV = \frac{\pm}{\bar{X}}\ \varepsilon\ 100$$

Greater the CV, the more variable or conversely less consistent, less uniform, less stainable and homogenous than the consistent more uniform, more stable and homogenous. This nature of CV uses that actual size of working capital.

C. Coefficient of correlation (r)

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is liner related to another. Coefficient of correlation is the measurement of the degree of relationship between two casually related sets of figure whether positive or negative. Its values lie somewhere ranging between - 1 to +1. If the both variables are constantly changing in the similar direction, the value of coefficient will be –1, two variables take place in opposite defection. The correlation is said to be perfect negative. In this study, simple correlation is use to examine the relationship of different factors with working capital and other variable.

Coefficient of correlation (r) = $\dfrac{\text{CoVariance of X \& Y}}{\pm_X \ \pm_Y}$

i) Coefficient of Correlation between Deposit and Loan & Advances.

Deposit have played a very important role in performance of commercial banks and similarly loan & advances are important to mobile the collected deposits. Coefficient of Correlation between deposit and loan & advances measures the degree of relationship between the two variables. In this analysis, deposit is independent variable (X) and loan & advances is dependent variables(Y). The main objectives of computing 'r' between these two variables are to justify whether deposits are significantly used on loan & advances in a proper way or not.

The following table shows the value of 'r', 'r^{2}' probable Error (P.Er) and P.Er between deposit and loan & advances for the study period 2002/03 to 2006/07.

ii) Coefficient of Correlation between Deposit and Total Investment

Coefficient of correlation between deposit and total investment measures the degree of relation between these two variables. Here deposit is independent variable (x) and total investment is dependent variable(y). The purpose of computing coefficient of correlation between deposit and total investment is to find whether deposit is significantly used as Investment or not.

D. Trend Analysis

The easiest way to evaluate the performance of a firm is to compare its current ratios with past ratios. When financial ratios over a period of time are compared it is known as the trend analysis. It gives an indication of the direction of change and reflects whether the firm's financial performance has improved, deteriorated or remain constant over time. The projections are based on the following assumptions:

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
PRESENTATION AND ANALYSIS OF DATA

Introduction review of literature and research methodology is presented in the previous chapters that provide the basic inputs to analyze and interpret the data. Presentation and analysis of data is the main body of the study. In this chapter collected data are analyzed and interpreted as per the stated methodology in the previous chapter. The main sources of data are secondary data. In this chapter, researcher has analyzed and diagnosed credit risk management of Nabil Bank and Nepal Investment Bank Different tables and diagrams are shown to make the analysis simple and understandable.

4.1 Financial Analysis

Financial analysis is the act of identifying the financial strength and weakness of the organization presenting the relationship between the items of balance sheet. For the purpose of this study, ratio analysis has been mainly used and with the help of it data have been analyzed.

Various financials ratios related to the investment management and fund mobilization are presented to evaluate and analyze the performance of commercial Banks i.e. NABIL and NIB. Some important financial rations are only calculated in the point of view of fund mobilization and investment patterns. The ratios are designed and calculated to highlight the relationship between financial items and figures. It is a kind of mathematical relationship and procedure dividing one item by another.

4.1.1 Ratio Analysis

Ratio analysis shows the mathematical relationship between two accounting figures. It helps to analyze the financial strengths and weaknesses of the banks. It is also inevitable for the quantitative judgment with which the financial performance of banks can be presented properly. Ratio analysis is also concerned with output and credit decision. Four main categories of ratios have been taken in this study that is mainly related to investment policy of banks.

4.1.1.1 Liquidity Ratio

Commercial bank must maintain its satisfactory liquidity posting to satisfy the credit needs of community, to meet demands for deposit–withdrawals, pay maturity obligation in time and convert non cash assets into cash to satisfy immediate needs without loss to bank and consequent impact on long-run profit. Liquidity ratio is mainly used to analyze the short-term strength of commercial banks.

A) Current Ratio

This ratio measures the liquidity position of the commercial banks. It indicates the ability of Banks to meet the current liquidity.

Table No. 4.1

Current assets to current liability (in times)

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	2.10	2.08	2.08	1.83	1.34	1.89	0.321	0.17
NIB	2.037	2.51	2.22	2.17	1.014	1.99	0.573	0.29

Source*: Annual Reports of Concern Bank*

Above table shows the current ratio of selected commercial banks during the study period. The current ratio of NABIL bank is in decreasing trend and NIB is also decreasing trend. In general, it can be said that all the banks have sound ability to meet their short- term obligations. In the case of NABIL C.R. has high ratio in each year except in 2007/08. In an average, liquidity position of NIB is greater than NABIL i.e. 1.99>1.89 due to high mean ratio. So, NIB is sound in meeting short-term obligation than NABIL. Likewise, S. D. and C.V. of NABIL is less than NIB i.e. 0.321 < 0.573 and 0.17 < 0.29. It can be said that C.R. of NABIL is more consistent than NIB.

Lastly from the above analysis it is known that all these two banks have better liquidity position because the standard ratio is 1:1. They have met the standard ratio.

B) Cash and Bank Balance to Total Deposit Ratio

Cash and Bank Balance to Total Deposit Ratio indicates the bank ability to meet their daily requirement of depositors. Higher ratio shows the greater ability of the firms to meet customer demands on their deposits. Following table shows cash and bank balance to total deposit of NABIL and NIB during the study period.

Table No. 4.2

Cash & Bank Balance to Total Deposit Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	6.88	3.83	3.26	5.99	8.37	5.67	2.124	0.375
NIB	10.65	9.4	12.34	9.97	10.89	10.65	1.112	0.104

Source*: Annual Reports of Concern Bank*

The above Table revels that the Cash and Bank Balance to Total Deposit Ratio of NABIL and NIB are in fluctuating trend. The highest ratio of NABIL is 8.37% in FY 2007/08 and lowest is 3.26% in FY 2005/06. Similarly, the highest ratio of NIB is 12.34% in FY 2005/06 and lowers 9.4% in 2004/05. The mean ratio of NABIL and NIB are 5.67% and 10.56% respectively. NIB has higher ratio than the NABIL which shows its greater ability to pay depositors money as they want. Similarly, the coefficient of variation of NABIL is 0.375 times and NIB is 0.104 times. S.D. of NIB is lower than the NABIL

The above analysis has to conclude that the cash and bank balance position of NIB with respect to NABIL is better in order to serve its customer's deposits. It implies the better liquidity position of NIB from the view point of depositor demand. In contrast a high ratio of cash and bank balance may be undesirable which indicates the bank's inability to invest its funds income generating areas. Thus NIB should invest in more productive sectors like short-term marketable securities insuring enough liquidity which will help the bank to improve its profitability.

C) Cash and Bank Balance to Current Assets Ratio

Cash and Bank Balance are the most liquid or quick assets. Cash and bank balance to current assets ratio represents the liquidity capacity of the firms as per cash and bank balance. Higher the ratios, better the ability of the firms to meet the daily cash requirement of their customers. But high ratio is not so preferred to the firms because firms have to manage the cash and bank balance to current asset ratio in such manner that firm may not be paid interest on deposits and may not have liquidity crisis.

Following the states the cash and bank balance to current assets NABIL and NIB during the study period.

Table No. 4.3

Cash & Bank Balance to Current Asset Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	8.57	6.33	4.55	8.25	13.27	8.20	3.267	0.398
NIB	10.81	9.56	12.17	10.65	11.78	10.99	0.010	0.093

Source*: Annual Reports of Concern Bank*

The above table reveals that cash and bank balance to current assets ratio of NABIL and NIB. The ratio of NABIL and NIB are in fluctuating trend. The mean ratio of NABIL and NIB is 8.20% and 10.99% respectively. The higher mean ratio shows NIBs liquidity position is better than that of NABIL. Moreover, the .S.D and C.V. of NABIL is higher than NIB. The higher C.V. of NABIL indicates that it has more inconsistency in the ratios in comparison to NIB

Regarding the above analysis, it can be concluded that NIB has a better ability to meet daily cash requirements of their customers but it should be noted that NIB has excess cash due to the low investment opportunities.

D) Investment on Government Securities to Current Assets Ratio

This ratio examines that portion of a commercial bank's current assets, which is invested on different government securities. More or less, each commercial bank is interested to invest their collected funds on different securities issued by government in different times to utilize their excess funds and for other purpose. Although those securities can be sold easily in the financial market or they can be converted into cash, they are not very liquid assets like cash and bank balance. It shows the portion of current assets to banks that are invested on various securities. Government securities are the more secured investment alternatives. These securities are also called risk less investment but less return is generated than others risky assets.

Table No. 4.4

Investment on Government Securities to Current Assets Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	51.78	34.91	16.60	28.36	23.09	30.95	13.45	0.434
NIB	17.64	13.90	13.14	14.20	9.90	13.76	2.76	0.201

Source*: Annual Reports of Concern Bank*

The table 4.4 shows investment on government securities to current assets ratio of NABIL and NIB. Both Banks has fluctuating type ratios. The table shows the highest ratio of NABIL is 51.78% in FY 2003/04 and lowest is 16.60% in FY 2005/06.In the same way, the highest ratio of NIB is 17.64% in FY 2003/04 and lowest is 9.90% in FY 2007/08.

The mean ratio of NABIL is 30.95 percent, which is higher than the mean ratio of NIB 30.76 percent. It means NABIL has invested more money in risk free assets than that of NIB. In another words NIB has emphases on more loan and advances and other short-term investment than investment in govt. securities. For minimization of investment risk, NIB should divert its investment in govt. securities. Similarly, S.D. is 13.45 and 2.76 and C.V is 0.434 and 0.201 of NABIL and NIB respectively. The higher C.V. of NABIL shows the more inconsistency in the ratios with compare to NIB.

4.1.1.2 Assets Management Ratio

A commercial bank must be able to manage it's assets very well to earn high profit, so to satisfy it's customers and for own existence. Assets management ratio measures how efficiently the bank manages the resources at its commands. Through following ratios, assets management ability of banks has been measured.

A) Loan and Advance to Total Deposit Ratio

This ratio actually measures the extent to which the banks are successful to mobilize the total deposit on loan & advances for the purpose of profit generation. A higher ratio of loan & advances indicates better mobilization of collection deposit and vice-versa. But it should be noted that too high ratio might not be better from its liquidity point of view. Following Table shows the loan & advances to total deposit ratio of related banks.

Table No. 4.5

Loan and Advance to Total Deposit Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	60.55	75.05	68.64	68.13	68.18	68.11	5.137	0.075
NIB	63.7	73.3	69.9	72.5	79.9	71.8	5.90	0.082

Source*: Annual Reports of Concern Bank*

The above table shows that the loan & advances to total deposit ratio of NABIL and NIB is fluctuating trends. NIB has higher ratio than that of NABIL in each year and mean too. It indicates the better mobilization of deposit by NIB. The mean of NABIL and NIB are 68.11% and 71.8% respectively. So NIB has little higher ratio than that of NABIL. It reveals that the deposit of NIB is quickly converted in to loan and advances to earn income. The bank will be able to better mobilization of collected deposit if there is above 70% to 90% of loan and advances to total deposit according to NRB. So in all of the year the NIB has met the NRB requirement or it has utilized its deposit to provide loan. But NABIL has not met the NRB requirement or it has not utilized its deposit to provide loan properly. The S.D. and C.V of NABIL is 5.137, 0.075 similarly NIB has 5.90 and0.082.

B) Total Investment to Total Deposit Ratio

Commercial banks and financial companies invest their collected funds in various government securities and other financial or non-financial companies. This ratio measures how successfully and efficiently the banks are mobilizing their funds on investment in various securities. This ratio of NABIL and NIB are calculated and presentation below.

Table No. 4.6

Total Investment to Total Deposit Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	41.33	29.25	31.94	38.32	31.14	34.40	5.163	0.15
NIB	33.52	27.60	29.60	26.57	19.97	27.45	4.95	0.181

Source*: Annual Reports of Concern Bank*

The above table shows that total investment to total deposit ratio of NABIL and NIB. Both banks have fluctuating trend total investment to total deposit ratio. Higher ratio of NABIL is 41.33% percent in FY 2003/04 and lowest ratio is 29.25 percent in FY 2004/05 in the same way the highest ratio of NIB 33.52 percent in FY 2003/04 and lowest ratio is 19.97% in FY 2007/08. Investment volume of NIB is lower than that of NABIL because more funds of NIB were used in profitable loans to achieve optimum mix of interest earning assets.

The mean of the ratio of NABIL and NIB are 34.40% and 27.45% respectively so NABIL has higher ratio. It signifies NABIL has successfully allocated its deposit in investment portfolio to get higher investment return. it also implies that NIB has lower investment opportunities.

The S.D and C.V. of NABIL is 5.163 and 0.15 and NIB has 4.95 and 0.181 respectively.

C) Loan & Advances to Total Assets Ratio

A commercial bank's working fund plays very active role in profit generation through fund mobilization. This ratio reflects the extent to which the banks are successful in mobilizing their total assets on loan & advances for the purpose of income generation. A high ratio indicates better mobilization of funds as loan and advance and vice-versa. The following table shows loan & advances to total assets of NABIL and NIB as follows.

Table No. 4.7

Loan & Advances to Total Assets Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	48.90	61.60	57.87	57.04	57.54	56.59	4.66	0.082
NIB	54.51	63.77	61.78	64.4	70.82	63.02	5.86	0.093

Source*: Annual Reports of Concern Bank*

The above table shows the loan & advances to total assets ratio of NABIL and NIB. The ratios are in fluctuating trend during the study period. While observing their ratios; NIB is better mobilizing of fund as loan and advances and it seems quite successful in generating higher ratio in each year in comparison of NABIL.

The mean of NABIL and NIB are 56.59% and 63.02% respectively. So NIB has higher ratio than that of NABIL. It reveals that in total assets, NIB has high proportion of loan and advances. NIB has utilized its total assets more efficiently in the form of loan & advances. The higher C.V. of NIB states that it has less uniformity in these ratios throughout the study period than that of NABIL. S.D. and C.V. of NABIL and NIB have 4.66, 5.86 and 0.082 and 0.093 respectively.

D) Investment on Government Securities to Total Assets ratio

It is not possible to apply all collection, deposit and other resources in to loan & advances for the banks. Therefore, they arrange their total assets in various sectors. Among all possible sectors, investment on government securities is one, which is very less risky.

Invest on government securities to total assets ratio measures how successfully selected banks have applied their total assets on various forms of government securities in profit maximization and risk minimization point of view. The higher ratio represents the better position of fund mobilization into investment on government securities and vice-versa.

Table No. 4.8

Investment on Government Securities to Total Assets ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	35.03	17.91	10.31	17.64	12.51	18.68	9.71	0.52
NIB	14.86	11.89	11.83	11.80	8.12	11.70	2.39	0.21

Source*: Annual Reports of Concern Bank*

Above table, shows that the investment on government treasury bills to Total assets of NABIL and NIB are in fluctuating trend. The highest ratio of NABIL is 35.03% in 2003/04 and NIB is 14.86% in 2003/04 and the lowest ratio of NABIL and NIB are 10.31% in 2007/08 and 8.12% in 2007/08 respectively.

From the table we notice that mean ratio of NABIL and NIB are 18.68% and 11.70% respectively. NABIL has higher ratio in every year and mean too. It means NABIL has invested more money in risk free assets than that of NIB. In another words NIB has emphases on more loan and advances and other short-term investment than investment in govt. securities. For minimization of investment risk, NIB should divert its investment in govt. securities.

C.V of NABIL is 0.52 and NIB is 0.21. so There is more inconsistent in the ratio of NABIL during the study period, which is indicated by higher C.V. of NABIL.

4.1.1.3 Profitability Ratio

Profit is major objective of any business organization. Profit is engine that drives the business enterprises. Profitability ratios are very helpful to measure the overall efficiency in operation of a financial institution. Profitability ratio is calculated based on sales and investment. In the context of banks, no bank can survive without profit. Profit is one the major indicates or efficient operation of a bank. The banks acquire profit by providing different services to its customers or by providing loan and advances and making various kinds of investment opportunities. Profitability ratios measure the efficiency of bank. A higher profit ratio shows the higher efficiency of a bank. The following ratios are calculated

Profitability ratios are the best indicators of overall efficiently. Here, those ratios are presented and analyzed which are related with profit as well as fund mobilization. Through the following ratios, effort has been made to measure the profit earning capacity of NABIL and NIB.

A) Return on Loan & advances

Every financial institution tries to mobilize their deposits on loan & advances properly. So this ratio helps to measure the earning capacity of selected banks. Returns on loan & advances ratio of selected banks are presented as follows.

Table No. 4.9

Return on Loan & advances

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	5.56	4.91	4.92	4.34	3.49	4.64	0.77	0.17
NIB	2.08	2.22	2.66	2.82	2.53	2.46	0.31	0.12

Source*: Annual Reports of Concern Bank*

Above table shows that return on loan and advances ratio of NABIL is in decreasing trend and NIB is increasing and decreasing trend. The highest ratio of NABIL is 5.56% in the year 2003/04 and lowest ratio 3.49% in year 2007/08. The mean ratio is 4.64%.Whereas highest ratio of NIB is 2.82% in year 2006/07 and lowest ratio is 2.08% in 2003/04. The mean ratio is 2.46%. NABIL bank shows the good earning capacity in loan and advances whereas EBL show poor earning capacity in form of loan and advances.

From the table we notice that NABIL has higher Ratios in all year and mean too. It can be concluded that NABIL bank has utilized the loan and advance for the profit generation purpose in proper way.

B) Return on Total Assets

This ratio measures the overall profitability of all working fund i.e. Total assets. A firm has to earn satisfactory return on working funds for its survival. The following table shows return on total assets ratio of selected banks.

Table No. 4.10

Return on Total Assets Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	2.72	3.02	2.84	2.47	2.01	2.61	0.39	0.15
NIB	1.13	1.42	1.64	1.82	1.79	1.56	0.29	0.18

Source*: Annual Reports of Concern Bank*

Above table shows the Return on Total Assets of NABIL and NIB. Both banks has fluctuating trend of return on its total assets. However, NABIL seems successful in managing and utilizing the available assets in order to generate revenue since its ROA ratio is 2.61% of total assets in an average which is higher than that of NIB 1.79 % (i.e. 2.61%>1.79).NABIL has also higher ratio in each years.

Where as S.D. and C.V .of NABIL and NIB are 0.39, 0.29 and 0.15 and 0.18 respectively. Higher C.V of NIB shows that it has relatively high incontinences in the ratios.

C) Return on Equity

Equity capital of any bank is its owned capital. The prime objective of any bank is wealth maximization or in other words to earn high profit and there by, maximizing return on its equity capital. Return on equity plays the measuring role of profitability of bank. It reflects, the extend to which the bank has been successful to mobilize or utilize its equity capital. A high ratio indicates higher successful to mobilize its owned capital and vice-versa. Following table shows the return on equity of NABIL and NIB during the study period.

Table No. 4.11

Return on Equity Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	30.76	31.34	33.91	32.79	30.60	31.88	1.43	0.045
NIB	20.94	19.67	24.76	26.70	25.91	23.60	3.36	0.33

Source*: Annual Reports of Concern Bank*

The above listed table shows Return on Equity Ratio of NABIL and NIB. Above calculated statistic indicate that NABIL and NIB both have fluctuating return on equity ratio. in first three years increase and decreasing trend in last two years of NABIL. But NIB has fluctuating. NABIL has higher ratios in each year and it has also higher mean ratio (i.e.31.88%>23.60%)

Despite stiff competition and an adverse macro economic environment, NABIL is currently generating higher ROE in comparison with NIB. In brief, it signifies that the shareholders of NABIL are getting higher return but in case of NIB, they are getting lesser. It can be concluded that NABIL has better utilized the equity for the profit generation. It proves to be a good strength of NABIL in attracting future investment also while NIB shows its moderate regarding efficient utilization of its owner's equity in comparison with NABIL. NABIL has homogeneous return in each year. NIB has relatively more consistency through out the study period because its S.D. and C.V is higher.

D) Total Interest Earned to Total Assets Ratio

Total interest earned to total assets ratio evaluates how successful the selected banks are mobilizing their total assets to achieve high amount of interest. Higher the ratio indicates the higher interest income of the selected sample banks. The total interest earned to total assets ratio of NABIL and NIB

Table No. 4.12

Total Interest Earned to Total Assets Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	5.98	6.22	5.87	5.83	5.33	5.85	0.33	0.056
NIB	5.43	5.30	5.50	5.74	5.65	5.52	0.21	0.033

Source*: Annual Reports of Concern Bank*

They both have increased total interest earned during studied period. Despite the higher Total assets and interest earned in NABIL, it seems less conscious about managing its assets in order to earn more interest ratio. NABIL shows the decreasing trend of the interest earned ratio except in year 2004/05 and its average ratio is 5.85% whereas NIB shows fluctuating trend and it has maintained average ratio 5.52 %. The mean ratio of NABIL is more than that of NIB. In comparison, NABIL seems effective in earning interest to some extent than that of NIB.

E) Total interest Earned to Total Operating Income Ratio

Total interest earned to total operating income ratio reveals that portion of interest income on total operating income of the firms. The major sources of income for the bank are interest income so the banks should mobilize their funds in more interest generating sectors considering the risk and return. This ratio measures how successfully the selected banks have been mobilizing their fund uninterested generating assets during last from FY 2003/04 to 2007/08 are presented to analyze in the following table. The major sources of income for the bank are interest income. So the banks should mobilize their funds in more interest generating sectors considering the risk and return.

Table No. 4.14

Interest Earned to Operating Income Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	98.72	93.83	96.36	107.27	118.45	102.93	10.04	0.098
NIB	226.44	183.29	171.45	184.95	190.97	191.42	20.82	0.109

Source*: Annual Reports of Concern Bank*

Above table shows Interest Earned to Operating Income Ratio of NABIL and NIB. Both banks has fluctuating ratio during study period. NIB has greater share of total interest earn in its total operating income in each year and mean too. The mean ratio of NABIL and NIB are 102.93 % and 191.42% respectively. NIB has higher ratio, it indicates the high contribution in operating income made by lending and investing activities (core banking activity).NABIL has lower ratio, it indicates that high contribution in operating income do not made by lending and investing activities (core banking activity).High contribution in operating income made by lending and investing activities (core banking activity) is not good for long run but in short run it is not so bad. Thus, from short-term view, NIB is in good condition but from long-term view, NABIL is in good condition. In overall, NABIL has managed sound interest earned to operating income ratio.

The S.D. and C.V of NABIL is 10.04, 0.098 similarly NIB has 20.82, 0.109 It indicates NIB has relatively inconsistent in interest earned to total operating income as it has higher C.V than that of NABIL.

F) Total Interest Paid to Total Assets Ratio

Total interest paid to total assets ratio help to show and measure the percentage of interest paid by the firm in comparison with total assets. If interest paid to total assets ratio is higher, there will be higher interest expenditure on total assets. The following table shows that total interest paid to total assets of NABIL and NIB.

Table No. 4.15

Interest Paid to Total Assets Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	1.69	1.42	1.60	2.04	2.04	1.76	0.277	0.16
NIB	2.42	2.16	2.30	2.48	2.55	2.38	0.15	0.065

Source*: Annual Reports of Concern Bank*

Above table shows, Interest paid to Total Asset Ratio of NABIL and NIB. Due to the higher ratio in each year of NIB, it seems less conscious about borrowing cheaper fund. Both banks show fluctuating trend. NABIL has average ratio of 1.76% whereas NIB has maintained average ratio 2.38%. The mean ratio of NIB is more than that of NABIL and NIB has higher ratio in each year. In comparison, EBL seems ineffective in getting cheaper fund The C. V. of NABIL is greater than the NIB it indicate high risk and insignificant of NABIL rather than NIB.

4.1.1.4 Risk Ratio

Risk and uncertainty is a part of business loss. All the business activities are influenced by risk, so business organization can not achieve a good return as per their desires. The profitability of risk makes banks investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So the banks options for high profit have to accept the risk and manage it efficiently. A bank has to have idea of the level of risk of risk that one has to bear while investing its funds. Through following ratios, effort has been made to measure the level of risk inherent in the NABIL and NIB.

A) Credit Risk Ratio/Non-Performing Loan to Total Loan Ratio

Credit risk ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. By definition, credit risk ratio is expressed as the percentage of non- performing loan to total Loan & Advances.

Bank utilizes its collected funds by providing credit to different sections. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. The credit risk ratio shows the proportion of no-performing assets in total Loan & Advances. Higher ratio indicates more risky assets in the volume of Loan & Advances of the bank and vice-versa.

Table No. 4.16

Credit Risk Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	3.35	1.32	1.38	1.12	0.74	1.58	1.09	0.69
NIB	2.47	2.69	2.07	2.37	1.12	2.15	0.61	0.29

Source*: Annual Reports of Concern Bank*

Above table shows, that NPL to total loan and advances of NABIL is in decreasing trend except in 2005/06 and NIB is in fluctuating trend. Decreasing trend is the good sign of the efficient credit management. NABIL seems effective in latest two years and NIB seems effective in beginning three years. From mean point of view, non-performing loan to total loan and advances ratio of NABIL and NIB are1.58 % and 2.15% respectively during the study period. These Ratios indicate the more efficient operating of credit management of both banks according to NRB directives because according to NRB directives NPL ratio must be less than 5%. However, in comparison, NABIL has efficient operating of credit management than that of NIB from the mean point of view. However if we see ratios in latest years NABIL has efficient operating of credit management than that of NIB.

(B) Liquidity Risk Ratio: -

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity of need. This ratio is low if funds are kept idle as cash balance but this reduces profitability, when the banks makes loan, its profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

$$\text{Liquidity Risk Ratio} = \frac{\textit{Cash and Bank Balance}}{\textit{Total Deposit}}$$

Table No: 4.17

Liquidity Risk Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	6.88	3.83	3.26	5.99	8.37	5.67	2.12	0.37
NIB	10.65	9.4	12.34	9.97	10.9	10.65	1.11	0.10

Source*: Annual Reports of Concern Bank*

The above Table reveals that the Cash and Bank Balance to Total Deposit Ratio of NABIL and NIB are in fluctuating trend. The highest ratio of NABIL is 8.37% in FY 2007/08 and lowest is 3.26% in FY 2005/06. Similarly, the highest ratio of NIB is 12.34% in FY 2005/06 and lowers in 9.4 in 2004/05.

The mean ratio of NABIL and NIB are 5.67% and 10.65% respectively. NIB has higher ratio than the NABIL, which shows its greater ability to pay depositors money as they want.

(C) Asset Risk Ratio: -

Bank utilizes its collected funds in providing credit to different sectors. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. Generally, asset risk ratio shows proportion of non-performing assets in the total investment plus loan and advances of a bank it is computed as:

$$\text{Asset Risk Ratio} = \frac{\textit{Total Investment} \,\Gamma\, \textit{Loan and Advances}}{\textit{Total Assets}}$$

Table No. 4.18

Credit Risk Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	83.76	86.43	85.54	89.86	84.31	85.98	2.41	0.028
NIB	83.19	87.78	88.05	87.98	88.51	87.10	2.20	0.025

Source*: Annual Reports of Concern Bank*

The above table shows the Asset risk ratio of NABIL and NIB. The analysis shows that NABIL and NIB have the credit risk ratio in fluctuating trend. NABIL has highest and lowest ratio of 89.86% and same 83.76% in the year 2006/07 and 2003/04 respectively. Similarly, NIB has the highest and lowest ratio of 88.51% and 83.19% in the year 2007/08 and 2003/04 respectively. The mean ratio of NIB is higher than that of NABIL (i.e. 87.10% > 85.98 %). the S.D. and C.V. both are higher of NABIL i.e. 2.41 > 2.20 and 0.028 > 0.025 than the NIB.

4.2 Statistical Analysis

Statistical tool is one of the important tools to analyze the data. There are various tools for the analysis of tabulated data such as, mean, standard deviation, regression analysis, co-relation analysis, trend analysis, various types of tests etc. There is used following convenient statistical tools are used in this thesis study.

4.2.1 Coefficient of Correlation Analysis

Co-efficient of co-relation shows the relationship between two or more than two variables. It measures that the two variables are positively or negatively co-related. For this purpose, Karl Pearson's co-efficient of correlation has been taken and applied to find out and analyze the relationship between deposit and loan & advances, deposit and total investment, total assets and net profit, total investment and net profit and also analyze the correlation of total deposit, total investment, loan & advances and net profit NABIL and NIB using Karl Persons coefficient of correlation, value of coefficient of determination

(R^2) probable error (P.Er.) and (6 P.Er.) are also calculated and value of them are analyzed.

A) Correlation Coefficient between Deposit & Loan & Advances

Deposit have played vary important role in performance of a commercial banks and similarly loan & advances are very important to mobilize the collected deposits. Co-efficient of correlation between deposit and loan & advances measures the degree of relationship between these two variables. In this analysis, deposit is independent variable (X) and loan & advances are dependent variable (Y). The main objectives of computing 'r' between these two variables is to justify whether deposit are significantly used as loan & advances in proper way or not.

Table No. 4.23

Correlation between Deposit and Loan & Advances

Name of Banks	Evaluation Criterions			
	r	R^2	P.Er.	6 P.Er.
NABIL	0.989	0.978	0.00662	0.0397
NIB	0.997	0.994	0.0018	0.011

Source: BY SPSS Data Editor

From the above table, it is found that coefficient of correlation between deposits and loan & advances of NABIL and NIB is 0.989 and 0.997. It is shows that both have the positive relationship between these two variables. It refers that deposit and loan & advances of NABIL and NIB move together very closely. Moreover, the coefficient of determination of NABIL is 0.978. It means 97.8 percent of variation in loan & advances has been explained by deposit. Similarly, value of coefficient of determination of NIB is 0.994. It refers that 99.4 percent variance in loan & advances are affected by total deposit. The correlation coefficient of both banks is significant because the correlation coefficient is greater than the relative value of 6 P.Er. In other words, there is significant relationship between deposits and loan & advances.

B) Coefficient of Correlation between Total Deposits and Total Investment

The coefficient of correlation between deposit and investment measures the degree of relationship between these two variables or deposit is significantly utilized or not. In correlation analysis, deposit is independent variable (X) and total investment is dependent variable (Y).

The following Table No. 4.30 shows the coefficient correlation between deposits and total investments i.e. r, P. Er., 6 P. Er. and coefficient of determination (R^2) of NABIL and NIB during the study period.

Table No. 4.24

Correlation between Deposit and Total Investment

Name of Banks	Evaluation Criterions			
	r	R^2	P.Er.	6 P.Er.
NABIL	0.926	0.857	0.0429	0.257
NIB	0.928	0.861	0.0419	0.251

Source: BY SPSS Data Editor

From the above table, the researcher found that the coefficient of correlation between total deposit and total investment of NABIL is 0.926 It shows the high degree positive correlation. In addition, coefficient of determination of NABIL is 0.857 It means only 85.7 percent of total investment 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 investment of NABIL.

Similarly, there is high degree correlation positive coefficient between total deposit and total investment of NIB, which is indicator by correlation coefficient of 0.928. The value of coefficient of determination is found 0.861 this refers that 86.1 percent of the variation in total investment 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 investment of NIB

From the above analysis, the conclusion can be drawn in the case of NABIL and NIB that both have high degree positive correlation. It indicates that both are successful to mobilize its deposit to provide investment.

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C) Co-efficient of Correlation between Loan and advance and Net Profit

Co-efficient of correlation between total assets and net profit is used to measure the degree of relationship between two variable i.e. Loan and advance and net profit of NABIL and NIB 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 there the net profit is significantly correlated or not and 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 6 P. Er. between those variables of NABIL and NIB for the study period.

Table No. 4.25

Correlation between Loan and advance and Net profit

Name of Banks	Evaluation Criterions			
	r	R^2	P.Er.	6 P.Er.
NABIL	0.955	0.912	0.0265	0.1589
NIB	0.989	0.978	0.0066	0.0396

Source: Through SPSS Data Editor

Above table shows correlation coefficient between, Loan and advance and net profit is 0.955 of NABIL. It refers that there is positive correlation between these two variables. Here, 91.2 percent of net profit is contribute by Loan and advance as its coefficient of determination of 0.912 shows. Moreover, this relationship is significant because the coefficient of correlation is more than 6 P.Er. Likewise NIB also littlr high degree positive correlation i.e. 0.989 between Loan and advance and net profit. The coefficient of determination R^2 is 0.978 which indicates that 97.8 percent variability in net profit is explained by Loan and advance. Moreover, less correlation coefficient than 6 P.Er. Shows that the relationship between Loan and advance and net profit is significant for

NIB. In conclusion, NIB has more significant relationship between Loan and advance and net profit than that of NABIL.

D) Coefficient of Correlation between Total Investment and Net Profit

Coefficient of correlation between total investment and net profit measures the degree of their relationship. In the, correlation analysis, investment is independent variable and net profit 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 2003/04 to 2007/08.

Table No. 4.26

Correlation between Total Investment and Net Profit

Name of Banks	Evaluation Criterions			
	r	R^2	P.Er.	6 P.Er.
NABIL	0.847	0.717	0.085	0.511
NIB	0.949	0.9006	0.02999	0.1799

Source: Through SPSS Data Editor

Above table shows correlation coefficient between total investment and net profit of NABIL is 0.847 which implies there is positive correlation between total investment and net profit. In addition, coefficient of determination of NABIL is 0.717. It means only 71.7 percent of Profit is contribute by total investment. Obviously, this correlation is significant at all due to coefficient of correlation is higher than 6P.Error. On the other hand NIB has moderate positive correlation between total investment and net profit i.e. 0.949. The coefficient of determination of NIB is 0.9006, It means 90.06 percent of Profit is contribute by total investment but this relationship is significant as its correlation coefficient is higher than 6 P.Er. i.e. 0.1799. .NABIL has more significant relationship between total investment and net profit than that of NIB

Thus it can be concluded that the degree of relationship between total investment and net profit of NIB is poor than the NABIL. This correlation coefficient indicates that the NIB has poor performed in order to generate net profit through investment.

E) Coefficient of correlation of Total Deposit between NABIL and NIB

Coefficient of correlation of total deposit between NABIL and NIB and shows their linear relationship.

Table No. 4.27

Correlation between Total Deposit of NABIL and NIB

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.996	0.992	0.0024	0.01445

Source: Through SPSS Data Editor

This table shows how the total deposit of NABIL and NIB is related. 0.996 of correlation coefficient shows that there is highly positive correlation between these two banks in this regard. But this correlation coefficient is also significant because the correlation coefficient is high than 6 P.Er. As the 0.992 of coefficient of determination, this shows the 99.2 percent of the degree of relationship. The degree of relationship between these two banks is also high.

F) Coefficient of correlation of Total Investment between NABIL and NIB

The coefficient of correlation of total investment between selected commercial banks is shown as follow:

Table No. 4.28

Correlation between Total Investment of NABIL and NIB

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.919	0.8445	0.0469	0.281

Source: Through SPSS Data Editor

The above table reveals that there is moderate positive correlation between NABIL and NIB in case of total investment. It implies that the total investment of NABIL and NIB move in the same direction. Here R > 6 P.Er. i.e 0.281. Therefore, correlation coefficient is significant. This can be said that both NABIL and NIB increase its total investment as same direction. The coefficient of determination is 0.8445, which shows the only 84.45 percent of the degree of relationship.

G) Coefficient of Correlation of Loan & Advances between NABIL and NIB The coefficient of correlation of loan & advances between NABIL and NIB has been given below.

Table No. 4.29

Correlation between Loan & Advances of NABIL and NIB

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.997	0.994	0.00181	0.1084

Source: Through SPSS Data Editor

Above table shows that there is high degree positive correlation between the loan & advances of NABIL and NIB. The correlation coefficient between two banks is 0.997. It means loan & advances of these two banks moves in the same direction in high proportion. This correlation coefficient is significant in order to show the relationship between loan & advances of these two banks because correlation coefficient is greater than 6 P.Er. The coefficient of determination is 0.994, which shows the 99.4 percent of the degree of relationship.

H) Coefficient of Correlation of Net Profit between NABI L and NIB

The coefficient of net profit between the selected commercial banks shows the relationship between the banks.

Table No. 4.30

Correlation between Net Profit of NABIL and NIB

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.996	0.992	0.00241	0.01445

Source: Through SPSS Data Editor

Above statistics shows that there is high degree positive correlation between profits of NABIL and NIB, which is indicated by correlation coefficient of 0.996. This relationship is insignificant because its correlation coefficient is greater than 6 P.Er. The coefficient of determination is 0.992, which shows the 99.2 percent of the degree of relationship.

4.2.2 Trend Analysis

Trend analysis plays an important role in the analysis and interpretation of financial statement. Trend in general terms, signifies a tendency. It helps in forecasting and planning future operation. Trend analysis is a statistical tool, which shows the previous trend of the financial performance and forecasts the future financial results of the firms.

A) Trend Analysis of Total Deposit:

Deposits are the important part in banking sector hence its trend for next seven years will be forecasted for future analysis. This is calculated by the least square method. Here the effort has been made to calculate the trend values of Total deposit of Nabil bank and Nepal Investment Bank Ltd for further eight year

Y= a + bx

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

Here,

$a = \frac{SY}{N}$ $b = \frac{SXY}{SX^2}$

NABIL	NIB
a =20662	a = 20729.48
b = 4434.7	b = 5608.89

Where as

Yc = 20662 + 4434.7 X of NABIL

Yc = 20729.48+5608.89 X of NIB

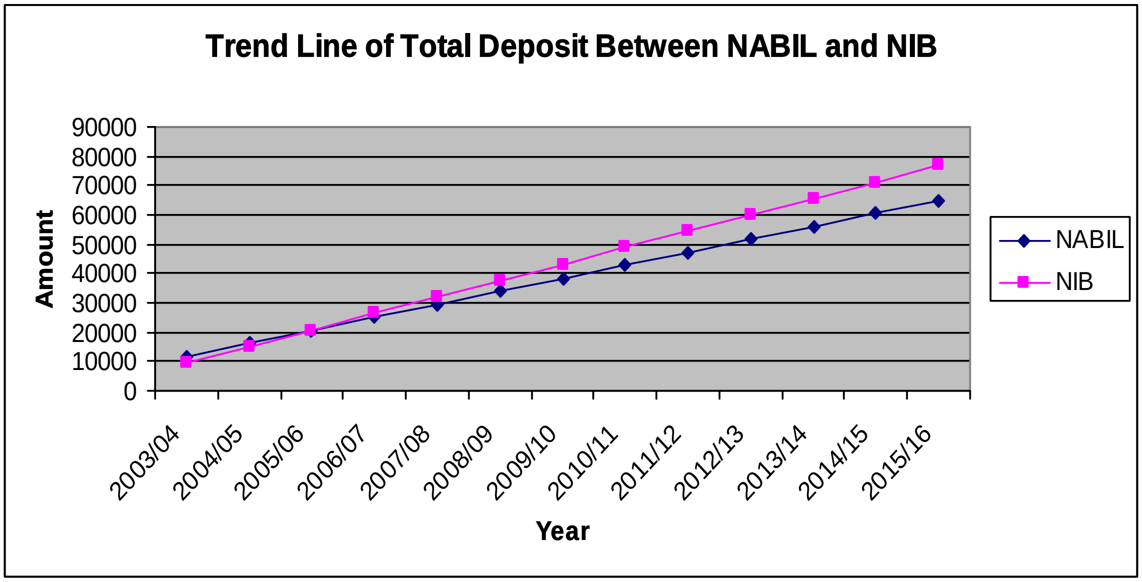
Table No. 4.31

Trend analysis of Total Deposit of NABIL and NIB		
Year(x)	NABIL	NIB
2003/04	11792.6	9511.7
2004/05	16227.3	15120.6
2005/06	20662	20729.5
2006/07	25096.7	26338.4
2007/08	29531.4	31947.3
2008/09	33966.1	37556.2
2009/10	38400.8	43165
2010/11	42835.5	48773.9
2011/12	47270.2	54382.8
2012/13	51704.9	59991.7
2013/14	56139.6	65600.6
2014/15	60574.3	71209.5
2015/16	65009	76818.4

Source: Annul Report of Concern Bank

Appendix -1

Figure No 4.1



Above table and figure shows that total deposit of NABIL and NIB. Both Banks is in increasing trend. The rate of increment of total deposit for NIBL seems to be higher than that of NABIL. The increasing trend of total deposit of NIB is more aggressive and high rather than NABIL. It indicates NIB has more prospect of collecting Total deposit. The trend analysis has projected deposit amount in fiscal year FY 2008/09 to FY 2015/16. From the above trend analysis it is clear that NIB has higher position in collecting deposit than NABIL.

B) Trend Analysis of Loan & advances

Here, the trend values of loan & advances Between NABIL and NIB have been calculated for further Eight year. The following Table shows the actual and trend values of NABIL and NIB.

Y= a + bx

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

Here,

$a = \frac{SY}{N}$ $b = \frac{SXY}{SX^2}$

NABIL NIB

a = 13721.91 a = 15253.6

b = 3130.973 b = 4769.68

Yc = 13721.91 + 3130.973 X of NABIL

y=15253.6 + 4769.68 X NIB

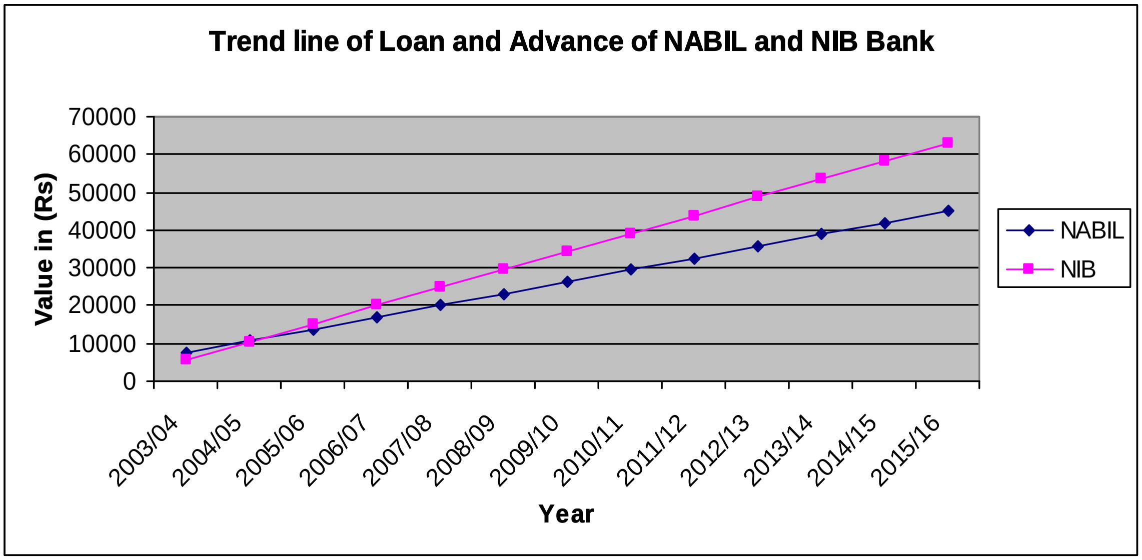
Table No. 4.32

Trend line of Total Loan and Advance of NABIL and NIB		
Year(x)	NABIL	NIB
2003/04	7459.96	5714.24
2004/05	10590.9	10483.9
2005/06	13721.9	15253.6
2006/07	16852.9	20023.3
2007/08	19983.9	24793
2008/09	23114.8	29562.6
2009/10	26245.8	34332.3
2010/11	29376.8	39102
2011/12	32507.7	43871.7
2012/13	35638.7	48641.4
2013/14	38769.7	53411
2014/15	41900.7	58180.7
2015/16	45031.6	62950.4

Source: Annul Report of Concern Bank

Appendix - 2

Figure No 4.2



Above table depicts that loan & advances of NABIL and NIB. Both Banks has in increasing trend. The increasing trend of NIB is higher than NABIL . The actual value of loan & advances for NIB and NABIL are quite fluctuating. The trend projected for father eight year FY 2007/08 to FY 2015/16 From the above analysis, it is clear that both NABIL and NIB is mobilizing its collected deposits and other funds in the form of loan & advances. Above table and figure shows the NIB has highly mobilizing loan & advances than the NABIL.

C) Trend Analysis of Total Investment

Under this topic, an attempt has been made to analyze trend analysis total investment of NABIL and NIB for further eight years

Y= a + bx

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

Here,

$a = \frac{SY}{N}$ $b = \frac{SXY}{SX^2}$

NABIL NIB

a = 7033.358 a = 5356.94

b = 1288.572 b = 860.53

Yc = 7033.358 + 1288.572 X of NABIL

Yc = 5356.94+860.53 X of NIB

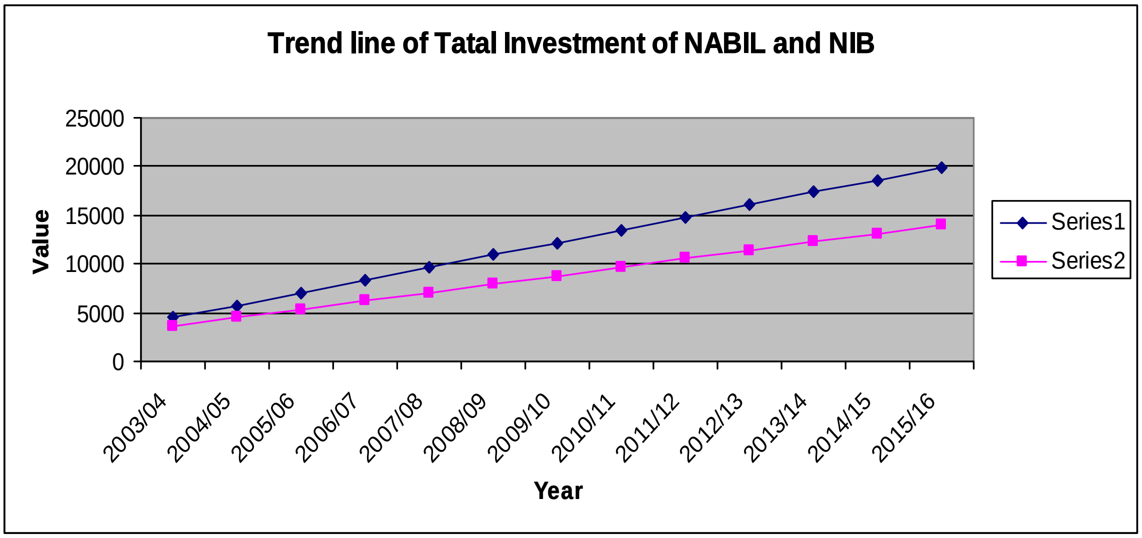
Table No. 4.33

Trend Line of Total Investment Between NABIL and NIB		
Year(x)	4456.21	3635.88
2003/04	5744.79	4496.41
2004/05	7033.36	5356.94
2005/06	8321.93	6217.47
2006/07	9610.5	7078
2007/08	10899.1	7938.53
2008/09	12187.6	8799.06
2009/10	13476.2	9659.59
2010/11	14764.8	10520.1
2011/12	16053.4	11380.7
2012/13	17341.9	12241.2
2013/14	18630.5	13101.7
2014/15	19919.1	13962.2
2015/16	4456.21	3635.88

Source: Annul Report of Concern Bank

Appendix - 3

Figure No 4.3



Above table shows the Trend of Total Investment between NABIL and NIB. Both Bank NABIL and NIB has increasing trend in making investment. NABIL has little high and upward trend of increasing, but NIB has moderately increasing trend of total investment. The trend of total investment projected to FY 2015/16. The forecasted trend projected that the NABIL has greater increment rate in total investment than the increment rate of NIB. The figure indicates NABIL has highly mobilized the total investment rather than NIB.

D) Trend Analysis of Net Profit

Here, the trend values of net profit of NABIL and NIB have been calculated for five years FY 2003/04 to FY 2007/08 and forecasting for the next eight year till FY 20015/16.

Y= a + bx

Where,

Y= dependent variable, a=Y-intercept, b=slope of trend line or annual growth rate,

X = deviation from some convenient time periods.

Let trend line be

Y = a + b x…………………… (I)

Where x = X - Middle year

Here,

$a = \frac{SY}{N}$ $b = \frac{SXY}{SX^2}$

NABIL NIB

a = 606.048 a = 386.696

b = 73.712 b = 135.737

Yc = 606.048 + 73.712 X NABIL

Yc= 386.696+135.737 X NIB

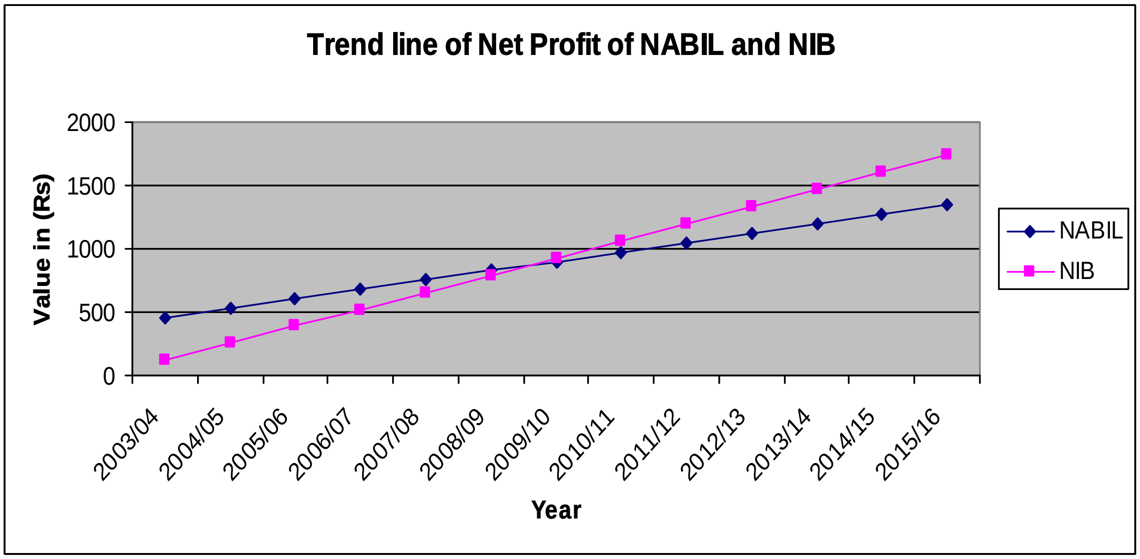
Table No. 4.34

Trend Analysis of Net Profit Between NABIL and NIB		
Year(x)	NABIL	NIB
2003/04	458.624	115.222
2004/05	532.336	250.959
2005/06	606.048	386.696
2006/07	679.76	522.433
2007/08	753.472	658.17
2008/09	827.184	793.907
2009/10	900.896	929.644
2010/11	974.608	1065.38
2011/12	1048.32	1201.12
2012/13	1122.03	1336.86
2013/14	1195.74	1472.59
2014/15	1269.46	1608.33
2015/16	1343.17	1744.07

Source: Annul Report of Concern Bank

Appendix - 4

Figure No 4.4



The above table reveals the trend of Net profit of NABIL and NIB. Net profit both bank NABIL and NIB forecasted in increasing trend. The trend of increasing value of net profit of NIB is higher and aggressive than NABIL. The net profit of NABIL and NIB has been increasing every year by Rs.73.712 million and Rs. 135.737 million respectively. The trend of Net profit projected to FY 2015/16 i.e. further Eight year. Above statistics shows that both the banks have inconsistent net profit throughout the study period. In conclusion, NIB is doing better in order to generate net profit during the projected study period in conclusion the prospect of profit generating capacity of NIB is high than the NABIL.

4.3 Major Findings

4.3.1 Financial Analysis

Liquidity Ratio

From the above research study, following findings are drawn on the liquidity position of the selected commercial banks.

- Commercial banks have to maintain more liquid assets but the current ratios of some banks are below the standard of 1:1. The mean current ratio of NABIL is

1.89 and NIB is 1.99 the current ratio of NIB is little higher than NABIL. It is indicate better liquidity position of NIB

- Cash and bank balance to total deposit ratio of NIB has higher than NABIL i.e. 10.65% > 5.67% which indicates that the bank has higher liquidity of NIB as compare to NABIL. A high ratio of cash and bank balance may be undesirable which indicates inability to invest in more productive sectors like short-term marketable securities insuring enough liquidity, which will help the bank to improve its profitability. But liquidity position is good.
- Cash and bank balance to current assets ratio of NIB is higher than NABIL i.e. 10.99%. > 8.20%. Regarding the analysis, it can be said that NIB has a better ability to meet daily cash requirements of their customers but it should be noted that NIB has excess cash due to the low investment opportunities.
- Investment on government securities to current assets of NABIL has higher than NIB i.e. 30.95% > 13.76%. It shows NABIL has invested more fund in government securities. NIB has invested little portion in government securities. Its suggest NIB to increase investment in purchasing of government securities.

Above findings shows that liquidity position of NIB is comparatively better than NABIL. Lower liquidity position of NABIL shows that the current assets have been utilized in some profit generating sectors, but NIB has over liquidly position. But NABIL invest in risk free securities

Asset Management Ratio

A commercial bank must be able to manage its assets very well to earn high profit, so to satisfy it's customers and for own existence. The assets management ratios of NABIL and NIB show the following findings.

- The loan & advances to total deposit ratio of NABIL is lower than NIB 68.11% < 71.8%. It indicates the better mobilization of deposit by NIB. So, NIB has more efficiently utilizing the outsiders' funds in extending credit for profit generating sectors.

- The total investment to total deposit of NABIL is higher than NIB i.e. 34.40% > 27.45%. It shows the NABIL is mobilizing its funds on investment in various securities efficiently. It can be said that NABIL is more successful in utilizing its total deposit by investing in marketable securities.
- The loan & advances to total assets ratio of NIB is greater than NABIL i.e. 63.02% > 56.59%. It refers NIB has utilized its total assets more efficiently in the form of loan & advances with more risk because it has greater variability in the ratio.
- Investment on government securities to total assets ratio of NABIL is higher than NIB i.e. 18.68% > 11.70%. This indicates that NABIL has invested more portions of total assets on government securities. It means NABIL has invested more money in risk free assets than that of NIB.

Above findings reveals that the NABIL has better utilization of assets in risk free asset i.e. government security and productive sector rather than NIB.

Profitability Ratio

The major performance indicator of any firm is profit. Following findings are drawn on the basis o f profitability position of NABIL and NIB.

- Return on loan & advances ratio of NABIL is higher than that of NIB i.e. 4.64%> 2.46%. It refers that NABIL. It can be concluded that NABIL bank has utilized the loan and advance for the profit generation purpose in proper way.
- Return on total assets ratio of NABIL is slightly higher than MBL i.e. 2.61% > 1.79%. However, NABIL seems successful in managing and utilizing the available assets in order to generate revenue.
- Return on equity of NABIL is higher than MBL i.e.31.88% > 23.60% which shows that NABIL is more successful to earn high profit through the efficient utilization of its equity capital.
- Total interest earned to total assets ratio of NABIL is relatively little higher than that of NIB i.e. 5.85% >5.52% . It indicates that NABIL has efficiently used its total assets to earn higher interest income in comparison to NIB. NIB seems less conscious about managing its assets in order to earn more interest ratio

- Total interest earned to total operating income ratio of NABIL is lower than NIB i.e. 102.93% < 191.42. It means the greater portion of total operating income is occupied by total interest for NIB. It reveals NIB has successful mobilizing their fund in interest generating assets.
- Total interest paid to total assets ratio of NIB is higher than NABIL i.e. 2.38 % > 1.76%. It shows NIB has high interest expenditure to total assets. It supports NIB to increase to interest paid to operating income**.**

Overall findings of profitability ratios show that NABIL has utilized its fund in risk free asset and NIB has earned profit by interest mobilization.

Risk Ratio

From the above research study, following findings are drawn on the risk position of the sample banks:

- The credit risk ratio shows the proportion of no-performing loan in total Loan & Advances. Average credit risk ratio of NIB is higher than NABIL i.e. 2.15 > 1.58. NABIL has efficient operating of credit management than that of NIB from the mean point of view. These Ratios indicate the more efficient operating of credit management of both banks according to NRB directives because according to NRB directives NPL ratio must be less than 5%.
- The liquidity risk of the bank defines its liquidity need for deposit. The average mean ratio of NIB is greater than that of NABIL (i.e. 10.65% > 5.67%). It signifies that NIB has sound liquid fund to make immediate payment to the depositors.
- Asset Risk Ratio analyzed the Asset Risk Ratio of NABIL and NIB. The analysis shows that both banks have the Asset Risk Ratio in fluctuating trend. The mean ratio of NIB is higher than that of NABIL (i.e.87.10 %< 85.98)

Above analysis reveals that both the banks have high interest rate risk which is not desirable for any commercial bank. Here, NABIL has higher interest rate than NIB.

4.3.2 Statistical Analysis

Coefficient of Correlation

Coefficient of correlation analysis shows the following findings from the research study:

- Both NABIL and NIB have high positive co-relation between total deposit and loan & advances because NABIL and NIB have 0.989 and 0.997 of co-relation coefficient between deposit and loan & advances. These relationships are significant. This can be regarded as good indication in financial performance for the banks. The correlation coefficient of both bank is significant
- There is positive correlation between total deposit and total investment of NABIL and NIB. Where as NABIL has little low degree of positive co-relation i.e.0.926 than NIB i.e. 0.928. NIB has high degree positive correlation where as NABIL has little low degree positive correlation. Both bank's correlation coefficient is significant because the correlation coefficient is more than 6 P.Er.
- There is positive correlation between Loan and advance and net profit. Correlation between Loan and advance and net profit of NABIL is 0.955 and NIB is 0.989. NIB has little high degree of positive co-relation. The relationship between Loan and advance and net profit of NABIL has significant and NIB has insignificant due to more and less than 6 P.Er.
- The degree of relationship between total investment and net profit of NIB is high than NABIL i.e. correlation coefficient between total investment and net profit of NABIL and NIB is 0.847 and 0.949 respectively. It refers that NIB is comparatively successful to generate net profit due to high positive correlation. The relationship between Loan and advance and net profit of NABIL and NIB are significant due to more and less than 6 P.Er.
- Correlation coefficient of total deposit between NABIL and NIB shows high positive correlation i.e. 0.996. The correlation coefficient shows that It refers that total deposit of both banks move in the same direction in this regard. Correlation coefficient is also significant.
- The correlation of total investment between NABIL and NIB is positive correlation i.e. 0.845. It implies that the total investment of both banks move in

the same direction but less proportionately. correlation coefficient of bank is insignificant

- The degree of relationship of loan & advances between the NABIL and NIB is high because correlation coefficient between loan & advances of these two banks is 0.997. It means loan & advances of these two banks moves in the same direction in high. Correlation coefficient is also significant due to more than 6 P.Er
- The correlation of net profit between NABIL and NIB is positive i.e 0.996. It implies that the Net profit of both banks move in the same direction. The relationship between two banks is significant because its correlation coefficient is higher than 6 P.Er.

Time Series Analysis (Trend Analysis)

The research study has revealed following some major findings on the basis of time series analysis.

- NABIL and NIB have increasing trend in collecting deposit the rate of increment of total deposit for NIB seems to be higher than that of NABIL Here NIB has better position in collecting deposit than NABIL.
- The trend line of loan & advances for both banks is upward slopping. It refers that both the banks are increasing in disbursement of loan & advances. The trend line of loan and advances for NIB seems little high growing than NABIL. It refers that NIB is more aggressive in mobilizing its loan and advance.
- The total investment trend line of NABIL and NIB is upward slopping where as NABIL has little high upward slopping of total investment trend line than NIB. It refers that NABIL has better increasing trend of total investment than NIB.
- The trend line of Net profit for NABIL and NIB is upward slopping, But NIB has little high than NABIL. NABIL has smoothly increasing trend. The position of NIB is better in order to generate profit than NABIL.

Trend of Both bank has increasing trend. In comparison to both bank every ratio of NIB is higher than the NABIL. It indicates better performance of NIB rather than NABIL in trend of increment.

CHAPTER – V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The researcher has identified that research problem and set objectives to solve research problems about credit risk management of Nabil Bank Limited and Nepal Investment Bank limited. To make this study more effective, related literatures have been reviewed. The review of literature provides the foundation of knowledge in order to under take this research more precisely.

Research methodology has been described in third chapter, which is a way to solve the research problems with the help of various tools and techniques. This chapter includes the various financial as well as statistical tools to analyze the data in order to come to the decisions. This chapter includes the research design, population and sample data collection procedure, data period covered and methods of analysis. These studies is mainly conducted on the basis of secondary data collected from annual reports of concern bank, official report, economic journal, financial statement etc. and authorize web site of Nepal stock exchange and security board of Nepal.

The presentation and analysis of data has been made comparative analytical and their interpretation has done in chapter four by applying the wide varieties of methodology as stated in chapter three. It includes the various financial and statistical tools. In case of financial tools ratio analysis is done which consists current ratio, liquidity ratio, assets management ratio, profitability ratio, risk ratio and other ratios. Other ratio includes EPS, MPS and P.E. ratio. Various statistical tools such as arithmetic mean, standard deviation, coefficient of correlation, regression analysis and trend analysis, have been applied to fulfill the objective of this study. The analysis has been done mainly through secondary. The major findings of the study are also included in the final section of the presentation and analysis chapter.

Economic development is not possible without the proper development of banking sector in a country, as banks are the real facilitator for mobilizing the resources. Banks are the institutions, which collect the scattered small savings from the public and invest them into productive sector that ultimately contributes to economic development of a country. Besides providing the services for economic development, they are established to earn profit. In the context of current competitive scenario, banks need to face challenges from all around. One of the major challenges for Nepalese commercial banks is to properly manage the risk, especially the credit risk as it covers about 60% of the total risk that a bank face. Considering the importance of credit risk management in commercial banks, this research aimed at studying the credit risk management system of selected commercial banks. For this purpose, descriptive cum analytical research design was adopted. Out of total population of 26 commercial banks (till Mid July 2009), 2 banks were taken as sample using judgmental sampling method. NABIL and NIB have been taken for comparative study because of their similarities in terms of business size, date of establishment, capital size etc. Both primary and secondary data have been used in this study. Primary data has been collected mainly from personal interview with key position staff, telephone interview & structured questionnaire. Annual reports and other publication of these banks and NRB directives and reports are the bases of secondary data. The data collection from various sources are recorded systematically & presented. Appropriate statistical and financial tools have been applied to analyze the date. The data of five consecutive years of the two banks have been analyzed to meet the objective of the study.

The basic task of financial institutions is to mobilize the saving of the community and ensure efficient allocation of the savings to high yielding investment projects to offer attractive and secured returns to different sectors of the economy according to the planned priorities of the country. On the other hand, this process of financial institutions gives rise to the money and other financial assets, which therefore have a central place in the development process of the economy. Banking sector plays an important role in the economic development of the country. It provides an effective payment and credit system, which facilitates the channeling of funds from the surplus (savers) units to the deficit units (investors) in the economy.

Credit practice of commercial banks is a very risky one. For this, commercial banks have to pay due consideration while formulating investment policy. A healthy development of any commercial bank depends upon its investment policy. A good investment policy attracts both the borrowers and the lenders, which helps to increase the volume of quality deposits and investment.

In most years, banks are the leading buyers of bonds and notes issued by the government to finance public facilities, ranging from hospitals and football stadium to airport and highways. Moreover, bank reserves the principal channel for government economic policy to stabilize the economy. In addition, banks are the most important sources of short-term working capital needed for the businesses. They have increasingly become active in recent years in making long-term business loans for new plant and equipments. When businesses and consumers must make payments for the purchase of goods and services, more often they use bank provided cheques, credit or debit cards, or electronic accounts connected to a computer network. It is the bankers, to whom they turn most frequently for advice and counsel when they need financial information and financial planning.

Credit positions are undertaken with the goal of earning some expected rate of return. Investors seek to minimize inefficient deviations from the expected rate of return. Diversification is essential to the creation of an efficient investment because it can reduce the variability of returns around the expected return.

5.2 Conclusion

The overall aspect of liquidity position, Liquidity position of NIB is comparatively better than NABIL. Commercial banks have to maintain more liquid assets but the current ratios of some banks are below the standard of 1:1. The mean current ratio of NABIL is 1.89 and NIB is 1.99 the current ratio of NIB is little higher than NABIL. Cash and bank balance to total deposit ratio of NIB has higher than NABIL i.e. 10.65% > 5.67% which indicates that the bank has higher liquidity of NIB as compare to NABIL. Cash and bank balance to current assets ratio of NIB is higher than NABIL i.e. 10.99%. > 8.20%. Investment on government securities to current assets of NABIL has higher than NIB i.e. 30.95% > 13.76%. It shows NABIL has invested more fund in government securities. So, Liquidity position of NIB is comparatively better than NABIL.

An asset management aspect of NABIL is better than NIB, which is justified following ratio. The loan & advances to total deposit ratio of NABIL is lower than NIB 68.11% < 71.8. The total investment to total deposit of NABIL is higher than NIB i.e. 34.40% > 27.45%. It shows the NABIL is mobilizing its funds on investment in various securities efficiently. The loan & advances to total assets ratio of NIB is greater than NABIL. Investment on government securities to total assets ratio of NABIL is higher than NIB i.e. 18.68% > 11.70%. This indicates that NABIL has invested more portions of total assets on government securities. so An asset management aspect of NABIL is better than NIB by little higher loan & advances to total deposit ratio, loan & advances to total assets ratio for NABIL.

The major performance indicator of any firm is profit. The profitability position of NABIL and NIB are Return on loan & advances ratio of NABIL is higher than that of NIB i.e. 4.64%> 2.46%. Return on total assets ratio of NABIL is slightly higher than NIB i.e. 2.61% > 1.79%. However, NABIL seems successful in managing and utilizing the available assets in order to generate revenue. Return on equity of NABIL is higher than MBL, which shows that NABIL is more successful to earn high profit through the efficient utilization of its equity capital. Total interest earned to total assets ratio of NABIL is relatively little higher than that of NIB i.e. 5.85% >5.52% .Total interest earned to total operating income ratio of NABIL is lower than NIB. It means the greater portion of total operating income is occupied by total interest for NIB. Total interest paid to total assets ratio of NIB is higher than NABIL i.e. 2.38 % > 1.76%. It shows NIB has high interest expenditure to total assets. It supports NIB to increase to interest paid to operating income**.** Overall findings of profitability ratios show that NABIL has utilized its fund in risk free asset and NIB has earned profit by interest mobilization.

The credit risk ratio shows the proportion of no-performing loan in total Loan & Advances. Average credit risk ratio of NIB is higher than NABIL i.e. 2.15 > 1.58. These Ratios indicate the more efficient operating of credit management of both banks according to NRB directives because according to NRB directives NPL ratio must be less than 5%. The liquidity risk of the bank defines its liquidity need for deposit. The average mean ratio of NIB is greater than that of NABIL. Asset Risk Ratio analyzed the Asset Risk Ratio of NABIL and NIB. The analysis shows that both banks have the Asset Risk Ratio in fluctuating trend. The mean ratio of NIB is higher than that of NABIL (i.e.87.10 %< 85.98). So its reveals that both the banks have high interest rate risk which is not desirable for any commercial bank.

Coefficient of correlation between total deposit and loan & advances of NABIL and NIB have highly positive correlated. The correlation between total deposit and loan & advances are 0.989 and 0.997. The relationships of both bank are significant. There is positive correlation between total deposit and total investment of NABIL and NIB. NABIL has little low degree of positive co-relation i.e.0.926 than NIB i.e. 0.928. Both bank's correlation coefficient is significant because the correlation coefficient is more than 6 P.Er. Correlation between Loan and advance and net profit of NABIL is 0.955 and NIB is 0.989. The relationship between Loan and advance and net profit of NABIL has significant and NIB has insignificant due to more and less than 6 P.Er. The degree of relationship between total investment and net profit of NIB is high than NABIL. The relationship between Loan and advance and net profit of NABIL and NIB are significant.

Correlation coefficient of total deposit between NABIL and NIB shows high positive correlation i.e. 0.996. Correlation coefficient is also significant. Similarly, the correlation of total investment between NABIL and NIB is positive correlation. It implies that the total investment of both banks move in the same direction but less proportionately. The degree of relationship of loan & advances between the NABIL and NIB is high because correlation coefficient between loan & advances of these two banks is 0.997. The correlation of net profit between NABIL and NIB is positive i.e. 0.996. It implies that the Net profit of both banks move in the same direction. The relationship between two banks is significant. From the above analysis both bank has positively correlated.

Time Series Analysis revealed following analysis. NABIL and NIB have increasing trend in collecting deposit the rate of increment of total deposit for NIB seems to be higher than that of NABIL Here NIB has better position in collecting deposit than NABIL. The trend line of loan & advances for both banks is upward slopping. It refers that both the banks are increasing in disbursement of loan & advances. The total investment trend line of NABIL and NIB is upward slopping where as NABIL has little high upward slopping of total investment trend line than NIB. The trend line of Net profit for NABIL and NIB is upward slopping, But NIB has little high than NABIL. Trend of Both bank has increasing trend.

5.3 Recommendations

Based on the analysis and finding of the study, the following recommendations can be made as suggestions to make the credit risk management of NABIL and NIB effective and efficient. This would help to draw some outline and make reforms in the respective banks

- The current ratio of the two banks, NABIL and NIB is considerable. This can be regarded as 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. Therefore, it recommended to maintain sound liquidity position to NABIL and NIB.

- Government securities such as Treasury bills, Development bonds, saving certificates etc. are risk less 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 both banks, NABIL and NIB have made some amount of fund in Government securities.

- NABIL and NIB have a possible risk because there is large amount of doubtful loan & advances and risky investment. So it is recommended to evaluate the portfolio management to grab opportunities and alternatives using statistical, capital budgeting and other financial tools to avoid large amount of doubtful debt and risk.

- To get success in competitive banking environment, deposit must be utilized as loan & advances. The largest item of bank assets side is loan & advances. It has been found that loan & advances to total deposit ratio of NIB is higher than that of NABIL. It means NIB has highly utilized the total deposit.

- EPS and DPS play a vital role to determine the market price of the share and also indicate the financial performance of banks. Higher EPS and DPS indicate the banks

- Both the banks are recommended to formulate and implement the sound and effective portfolio increase volume of total investment and loan & advances that helps to meet required level of profitability as well as social responsibility. The banks should consider rural areas in making investment policy.

- Last political instability directly affected the economic sector such as hotel & tourism, manufacturing and trading sector. Bank loan & advances is decreasing in this sector. So banks should give priority to these sectors as well as banks should create new investing sector to mobilize deposit.

- Both companies have earned more income from interest income which is not good for long term view. So both have to increase their revenue through other banking activity for long-term survival and to avoid bad debt risk.

- NABIL and NIB has successfully allocated its deposit in investment portfolio. But it should better successfully allocate its deposit in invest portfolio for risk minimization.

- Both banks should be careful in increasing profit of the bank to maintain the confidence of shareholders, depositors and all its customers. so it is strongly recommended to utilize risky assets and shareholders fund to gain high amount of profit.

- NRB has given directives to financial institution to invest their certain percentage of investment in deprive and priority sector. Both companies have earned profit from profitable and private sector. So, they are recommended to strictly follow up the directives issued by NRB and should make investment on public utilities sector like health, sanitation, education, drinking water, agriculture etc.

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Appendix - 1

A) Trend Analysis of Total Deposit Nabil Bank Limited

Year(x)	Total deposit(Y)	X = x-2005/06	X^2	XY
2003/04	35014	-2	4	-70028
2004/05	35735	-1	1	-35735
2005/06	35934.2	0	0	0
2006/07	35829.8	1	1	35829.77
2007/08	38715.2	2	4	77430.4
Tot n= 5	$\sum Y$ = 181228.17	$\sum X$ = 0	$\sum X^2$ =10	$\sum XY$= 7497.13

Source: Annul report of Nabil Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NABIL

a =20662

b = 4434.7

Where as

Yc = 20662 + 4434.7 X of NABIL

B) Trend Analysis of Total Deposit of Nepal Investment Bank Limited:

Year(x)	Total deposit(Y)	X = x-2005/06	X^2	XY
2003/04	11525	-2	4	-23050
2004/05	14255	-1	1	-14255
2005/06	18927	0	0	0
2006/07	24489	1	1	24489
2007/08	34452	2	4	68904
Tot n= 5	$\sum Y = 103648$	$\sum X = 0$	$\sum X^2 = 10$	$\sum XY = 56088$

Source: Annul report of Nepal Investment Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NIB

a = 20729.6

b = 5608.8

Where as

Yc = 20729.6 + 5608.8 of NIB

Appendix - 2

A) Trend Analysis of Loan and Advance of Nabil Bank Limited

Year(x)	Loan and advances (Y)	X = x-2005/06	X^2	XY
2003/04	8189.99	-2	4	-16380
2004/05	10586.17	-1	1	-10586.2
2005/06	12922.54	0	0	0
2006/07	15545.78	1	1	15545.78
2007/08	21365.05	2	4	42730.1
Tot n= 5	$\sum Y$ =68609.53	$\sum X$ = 0	$\sum X^2$ =10	$\sum XY$=31309.73

Source: Annul report of Nabil Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Here,

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NABIL

a = 13721.91

b = 3130.973

Yc = 13721.91 + 3130.973 X of NABIL

B.) Trend Analysis of Loan and Advance of Nepal Investment Bank Limited:

Year(x)	Loan and advances (Y)	X = x-2005/06	X^2	XY
2003/04	7339	-2	4	-14678
2004/05	10453	-1	1	-10453
2005/06	13178	0	0	0
2006/07	17769	1	1	17769
2007/08	27529	2	4	55058
Tot n= 5	$\sum Y = 76268$	$\sum X = 0$	$\sum X^2 = 10$	$\sum XY = 47696$

Source: Annul report of Nepal Investment Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NIB

a = 15253.6

b = 4769.6

Where as

Yc = 15263.6+4769.6 X of NIB

Appendix - 3

A.)Trend Analysis of total Investment of Nabil Bank Limited

Year(x)	Total Investment (Y)	X = x-2005/06	X^2	XY
2003/04	5835.95	-2	4	-11671.9
2004/05	4267.23	-1	1	-4267.23
2005/06	6178.53	0	0	0
2006/07	8945.31	1	1	8945.31
2007/08	9939.77	2	4	19879.54
Tot n= 5	$\sum Y$ =35166.79	$\sum X = 0$	$\sum X^2 = 10$	$\sum XY$=12885.72

Source: Annul report of Nabil Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Here,

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NABIL

a = 7033.358

b = 1288.572

Where as

Yc = 7033.358 + 1288.572 X of NABIL

B.) Trend Analysis of Total Investment of Nepal Investment Bank Limited:

Year(x)	Total Investment (Y)	X = x-2005/06	X^2	XY
2003/04	2003/04	3862.5	-2	4
2004/05	2004/05	3934.2	-1	1
2005/06	2005/06	5602.9	0	0
2006/07	2006/07	6505.7	1	1
2007/08	2007/08	6879.4	2	4
Tot n= 5	$\sum Y$ =26784.7	$\sum X = 0$	$\sum X^2 = 10$	$\sum XY$=8605.3

Source: Annul report of Nepal Investment Bank Limited**:**

Let trend line be

Y = a + b x……………………. (I)

Here,

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NIB

a = 5356.94

b = 860.53

Where as

Yc = 5356.94+860.53 X of NIB

Appendix - 4

A) Trend Analysis of Total Profit of Nabil Bank Limited

Year(x)	Total Profit (Y)	X = x-2005/06	X^2	XY
2003/04	455.23	-2	4	-910.46
2004/05	519.32	-1	1	-519.32
2005/06	635.26	0	0	0
2006/07	673.96	1	1	673.96
2007/08	746.47	2	4	1492.94
Tot n= 5	$\sum Y$ = 3030.24	$\sum X = 0$	$\sum X^2 = 10$	$\sum XY$ = 737.12

Source: Annul report of Nabil Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NABIL

a = 606.048

b = 73.712

Where as

Yc = 606.048 + 73.712 X NABIL

B.) Trend Analysis of Total Profit of Nepal Investment Bank limited

Year(x)	Net profit (Y)	X = x-2005/06	X^2	XY
2003/04	152.67	-2	4	-305.34
2004/05	232.15	-1	1	-232.15
2005/06	350.53	0	0	0
2006/07	501.4	1	1	501.4
2007/08	696.73	2	4	1393.46
Tot n= 5	$\sum Y = 117649$	$\sum X = 0$	$\sum X^2 = 10$	$\sum XY = 62018$

Source: Annul report of Nepal Investment Bank Limited

Let trend line be

Y = a + b x……………………. (I)

Where x = X - Middle year

$$a = \frac{SY}{N}$$

$$b = \frac{SXY}{SX^2}$$

NIB

a = 386.696

b = 125.737

Where as

Yc = 386.696 + 125.737 X of NIB