CREDIT RISK MANAGEMENT OF NABIL BANK LIMITED AND MACHHAPUCHCHHRE BANK LIMITED

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RECOMMENDATION

This is to certify that the thesis:

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

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VIVA -VOCE SHEET

We have conducted the viva-voce examination of the thesis

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And found the thesis to be the original work of the student written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for

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Viva-Voce Committee

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DECLARATION

I hereby declare that the work done in thesis entitled "CREDIT RISK MANAGEMENT OF NABIL BANK LIMITED AND MACHHAPUCHCHHRE BANK LIMITED" has been submitted to Shanker Dev Campus, Faculty of Management, Tribhuvan University, is my own created work reported in the form of partial fulfillment of the requirement of Master's of Business studies (M.B.S.) course under the guidance of respected teacher supervisor Dr. Shilu Manandhar Bajracharya Associate Professor of Shanker Dev Campus.

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CHAPTER - I
INTRODUCTION

1.1 Background of the Study

A bank is a financial institution, which can play significant role in the upliftment of the economic situation of the developing country like Nepal. Bank plays a vital role to encourage thrift and discourage hoarding by mobilizing the resources and removing the habit of hoarding. They peruse economic growth rapidly, developing the banking habit among the people by collecting small scattered resources in one bulk, using them in further productive purpose and rendering the valuable services to the country. Commercial bank deals with the offer of collected deposits and provides the loan for commercial purpose. Commercial Bank Act (2031BS) states, “Accepting deposits granting loan and performing commercial banking functions are the main motto of commercial bank”. In the other words, commercial bank’s facilities also become right hand for the growth of trade and industry of national economy of developing country like Nepal.

Commercial banks are in a risky business. In the process of providing financial services, they assume various kinds of risks among which credit risk covers the significant portion of the total risk. While commercial banks have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to the lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to deterioration in the credit standing of a bank’s counterparties. Since the exposure to credit risk continues to be the leading source of problems in commercial banks world-wide, the banks should now have a keen awareness of the need to identify, measure, monitor, manage and control the credit risk as well as determine that they hold adequate capital against these risks and that they are adequately compensated for the risks incurred.

Though the banking sector has been facing different types of risks, major banking problems have been either explicitly or indirectly caused by the weaknesses in credit risk management. So, in this study, the researcher has focused mainly on the credit risk management of the commercial banks in Nepal. However, the brief introduction of other risks like liquidity risk, interest risk, operation risk and foreign exchange risk is also included.

1.1.1. Origin of Banking

The evolution of banking industry had started a long time back, during ancient times. There was reference to the activities of moneychangers in temple of Jerusalem in the New Testament. In ancient Greece, the famous temple of Delphi and Olympia served as the great depositories for people's surplus funds and these were the centre of money lending transactions. However as a public enterprise, banking made its first beginning around the middle of the twelfth century in Italy. The Bank of Venice, founded in 1157 was supposed to be the most ancient bank. Following it were established the Bank of Barcelona and the bank of Geneva in 1401 and 1407 respectively. Subsequently Bank of Amsterdam set up in 1609, which was very popular then. The Bank of Venice and the Bank of Geneva continued to operate until the end of eighteenth century. With the expansion of commercial banking activities in Northern Europe, there sprang up a number of private banking houses in Europe and slowly it spread throughout the world.

However, the development of banking in Nepal is relatively recent. Like other countries, landlords, moneylenders, merchant, goldsmith etc are the ancient bankers of Nepal. Though establishment of banking industry was very recent, some crude banking operations were in practice even in the ancient time. In the Nepalese chronicle, it was recorded that the new era known as Nepal sambat was introduced by shankhadhar, a sundra merchant of kantipur in 880 A.D. after having paid all the outstanding debts in the country. This shows the basis of money lending practice in ancient Nepal. The establishment of "Tejarath Adda"during the year 1877A.D. was the first step in institutional development of banking sectors in Nepal. Tejarath Adda did not collect deposit from public but granted loans to public against the collateral of bullions. Consequently, the major parts of the country remain untouched from these limited banking activities. The development of trade with India and other countries increase the necessity of the institutional banker, which can act more widely to enhance the trade and commerce and to touch the remote non-banking sector in the economy .Reviewing this situation, the “Udyog Parishad” was constituted in 1936 A.D. One year after its formulation , it formulated the “company Act” and “Nepal Bank Act” in 1937 A.D. Nepal bank limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of bank of Nepal with 10 million authorized capital.

Modern banking practices emerged with the establishment of Nepal Bank Limited in 1934 A.D. However the stand of Nepal Bank Limited alone in total monetary and financial sector was sufficient and satisfactory. Thus Nepal Rastra Bank was set up on 1956 A.D. (2013.01.14) as a central bank under Nepal Rastra Bank Act 1956 A.D. (2012 B.S.) Similarly on 1966(2022.10.10) Rastriya Banijya Bank was established as a fully government owned commercial bank. With the emergence of RBB, banking service spread to both the urban and rural areas but customers failed to have taste of Quality/competitive service because of excessive political and bureaucratic Interference. For industrial development, Industrial Development Centre was set up in 1956 A.D. (2013 B.S.) which was converted to Nepal Industrial Development corporation (NIDC) in 1959 A.D. (2016 B.S.) Similarly Agricultural Development Bank (ADB) was established in 1976 A.D. (2024.10.07) with an objective to provide agricultural products so that agricultural productivity could be enhanced through introduction of modern agricultural techniques (Limbu, 2008).

In 1990 A.D. after the restoration of democracy in Nepal, the government took the liberal policy in banking sector. As an open policy of the HMG’s to get permission to invest in banking sector from private and foreign investor under Commercial bank Act 1975 A.D. (2013 B.S.), different private banks are getting permission to establish with the joint venture of other countries. Nowadays, there are 25 commercial banks operating in Nepali financial market

1.1.2. Banking System in Nepal

Sound banking system is the crucial means to accelerate the development of a country by strengthening the economic condition in this globalized economy of the twenty-first century. This requires the well-developed corporate culture, proper management of risk and return and healthy competitive environment that facilitate mobilization of small saving in the commercial and industrial sectors that will enhance the economic and social welfare of a country.

Banking when properly organized, aids and facilitates growth on trade and considered not as dealers in money but as the leader of development. Bank are not just the storehouse of the country's wealth but are the reservoirs of resources necessary for economic development (Radhaswami and Vasudevan, 1991: 29).

In Nepal, modern banking started in 1937 A.D with the establishment of Nepal Bank Ltd. Nepal Rastra Bank, the central bank of Nepal was established in 1957 A.D followed by Rastriya Banijya Bank in 1966 A.D. As Nepalese government took liberal economic policy in 1980s, joint venture banks started to operate since 1984 A.D with the establishment of NABIL Bank Ltd. Formerly known as Nepal Arab Bank Ltd.

With the growth rate of banking industry from the 1984 A.D., the risk on banking has also made a mark simultaneously. Virtually all banks have suffered from the credit risk, which is associated with the non-payment of loan by the borrowers. Nepal Bank Limited and Rastriya Banijya Bank are the greatest victims of such risk, leading these banks to have negative net worth. That is why, this study is mainly focused on the credit risk faced by the commercial banks.

Commercial banks collect deposits from individuals and invest them in part as loan and advance to the borrowers and receive interest as the output of the business. Commercial banks' profit and operating cost are borne by these interest collected from the borrowers. When these interests as well as the principal are not collected in due time, the existence of the bank and the deposits of individuals will be in threat. So, necessary arrangements must be made and implemented by the banks and government to avert this situation. In addition to the credit risk, the bank also faces other risks. According to the Nepal Rastra Bank Unified Directives 2005, the major sources of risk are credit risk, liquidity risk, foreign exchange risk, and interest rate risk and operation risk etc.

1.1.3. Introduction of Sample Bank

A. Nabil Bank Limited

Nabil Bank (Nepal Arab Bank) the 1st foreign joint venture Bank set up in the nation with an objective to introduce modern banking services, commenced its operations on 12th of July 1984 (2041 Ashad 29 B.S.) with Rs. 28 million capital. Dubai Bank Limited, Dubai was the foreign joint venture partner who extended Nabil a technical service agreement in the initial period. The Bank, through its quality customer service and innovative products, has today attained a distinguished recognition in the banking industry of Nepal. The first Joint Venture Bank in Nepal with a 23 Year old journey of History.

Highly qualified and experienced team of NABIL 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. Customers to think of Nabil Bank first to meet any financial need of theirs. Nabil Bank would like investors to choose the Bank's share as a blue-chip stock whenever they are in search of an investment opportunity. 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 wants to be an example for the regulators in terms of professionalism and transparency. Nabil wants to be an actively participating 'good corporate citizen' in all the

Communities that the Bank works. It want to be the first choice as an employer with whom to build a career and finally the entire Nabil Team embraces a set of Values that acronym is referred to as ‘C.R.I.S.P.’ representing the fact that we consistently strive to be Customer Focused, Result Oriented, Innovative, Synergistic and Professional. By living these values, individually as professionals and collectively as a Team, Nabil Bank is committed to Surge Ahead to be the Bank of 1st Choice in Nepal.

NABIL 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' Nabil Bank Limited was the first joint venture bank established in 1984 with 50% invest by Dubai Bank Limited of UAE and of remaining 50% by Nepalese financial institutions comprise 30% and 20% by general public. The shares owned by DBL were transferred to Emirates Bank International ltd (EBIL), Dubai. Later EBIL sold its entire holding go National Bank ltd, Bangladesh (NBLB). Hence 50% of equity shares of Nabil Bank Limited are held by NBLB and out of remaining, financial institutions have taken 20% and 30% were issued to general public of Nepal. NABIL was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, NABIL provides a full range of commercial banking services through its 28 points of representation across the nation and over 170 reputed correspondent banks across the globe.

B. Machhapuchchhre Bank Limited

Machhapuchchhre Bank Limited started its operation in December 10, 2000 as the 14th commercial bank and the first commercial bank in the western part of Nepal. The head office of Machhapuchchhre is located in Pokhara and the corporate office is in Kathmandu. The bank has 11 branches located all over the major parts of the country. The bank also established its branch in Jomsom, Mustang district. The bank aims to serve the people of both urban and rural areas. It has the plan to extend its branches in more rural as well as urban areas in the near future. The bank has the issued and paid up capital of Rs. 715 million. The bank has the deposit and loan and advances of Rs. 7,893 million and Rs. 6,068 million respectively in fiscal year 2007/08 (Annual Report, 2007/08).

The bank has adopted computerized system in banking. The bank has the Any Branch Banking System (ABBS). The bank also provides different services such as ATM and electronic banking etc. The bank has been providing loans and advances in various sectors such as agriculture, manufacturing, deprived sector, industry and consumer financing etc (Annual Report, 2007/08).

Risk management has been identified as the key function of the bank in all levels of management. The Loan Committee, Internal Audit & Compliance Department are the key departments that are concerned with the management, compliance and evaluation of the risk management procedure.

1.2. Focus of the Study

The study is focused on measurement and comparison of credit risks of the selected commercial banks i.e. NABIL and MBL analysis of Credit Risk Management systems and practice followed by the Nepalese Commercial Banks by taking NABIL and MBL as the sample banks, the analysis of the directives of Nepal Rastra Bank issued to commercial banks and also is focused on finding out if the banks have taken proper measures to be adequately compensated for the credit risk they hold.

1.3. Statement of the Problem

Banking industry in the eyes of the layman appears as a very profitable sector with the net profit of the whole banking system at Rs. 7,983.5 million in Mid July 2006. However, unlike the general perception, the industry is plagued with immense challenges to sustain it and outpace those within the industry, mainly due to rising competition among commercial banks in addition to weak economic situation of the country, indicated by the GDP growth rate of 3.73% in the fiscal year 2062/63 B.S.

One of the major challenges is the government's policy of total liberalization of the banking industry from fiscal year 2009/10 A.D, which has allowed the foreign banks to operate their branch in Nepal without joint venture of Nepalese investors. This has resulted in the increased pressure for Nepalese commercial banks to face the competition of foreign banks. Similarly, Nepal Rastra Bank (NRB) directives to commercial banks to increase the paid up capital to Rs. 2 billion by 2010 has challenged most of the commercial banks in Nepal (NRB, 2005) (Banking and Financial Statistics, Mid-July 2006).

Another major problem of the banking sector in Nepal is the Credit Risk. Poor lending practices, which are indicated by poor financial analysis of borrowers, inadequate or substandard collateral and improper portfolio analysis, poor tracking of credit and intention of borrowers to default have resulted in the high amount of Non Performing Loan of major commercial banks such as Nepal Bank Ltd (NBL) and Rastriya Banijya Bank (RBB). The whole commercial banks in Nepal have held non-performing loan of 14.22% of Total Gross Loan in fiscal year 2005/06. Nepal Bank Ltd., Rastriya Banijya Bank, and Lumbini Bank Limited had the excess NPL of 25.1%, 45.3% and 31.97% respectively in the fiscal year 2062/63 B.S. However, the NPL of Nepal Bank Ltd. has reduced significantly as compared to the last year. In the fiscal year 2061/62, the NPL of Nepal Bank Ltd. was 49.0%; however, it has reduced to 25.1% in the fiscal year 2062/63. The NPL of Rastriya Banijya Bank has reduced from 50.7% to 45.3% in the fiscal year 2062/63. However, the NPL of Lumbini Bank Limited has increased from 14.7% to 32.0% in the fiscal year 2062/63. Because of the high amount of non-performing loan of these banks, these banks carries high amount of accumulated loss, which is indicated by the high amount of negative retained earnings and so the negative capital funds.

The huge negative capital funds of these two big banks namely RBB and NBL converted the total capital base of the Nepalese banking system to be negative. The negative capital fund of Rs. 5008.4 million of Nepal Bank Limited and Rs. 17,865.3 million of Rastriya Banijya Bank in fiscal year 2005/06 has led to the negative capital fund of Rs. 4251.95 million for the overall commercial banks. Therefore, the capital adequacy ratio stood at -

5.30% in the FY 2005/06 whereas it was -6.33% in the FY 2004/05. Despite some improvement, the aggregate capital funds to total risk weighted assets ratio of the banking system remained negative even in FY 2005/06. NRB has provisioned to maintain the capital adequacy ratio of 11% which is not maintained by 5 commercial banks including RBB and NBL. Likewise, the Non Banking Asset (NBA) is also the major problem in banking industry. Out of the total Non Banking Assets, the share of NBL and RBB is almost 50 %. Because of this phenomenon, the management of these banks has been handed over to the foreign experts. Likewise, Lumbini Bank Limited (LBL), because of its continuous poor performance, was taken over by NRB for few years however, the management of the bank was handed over to the private sectors. (NRB, 2062/63), (Banking and Financial Statistics, Mid-July 2006).

Present challenges to the banking sector are to invest the money in productive as well as new sector and to manage the accumulated non-performing loan. The non-performing loan for entire commercial banking industry is Rs 26,770.42 million in fiscal year 2005/06, which is 14.22 % of Total Gross Loan. So, the commercial banks are still burdened with huge non-performing loans which are too high when compared to the prudential banking standard of 5 per cent.

Similarly, there is the problem of high credit concentration risk. The recovery of loan is also the major challenge for Nepalese Commercial banks. The willful defaulter, that is the client who defaults the loan intentionally, is also one of the major problem of Nepalese commercial banks especially for NBL and RBB.

Further, the issuance of new 16 unified directives by the NRB in 2005 has also provided the commercial banks different measures related to credit risk, interest rate risk, foreign exchange risk, liquidity risk and operation risk coupled with maintaining adequate capital to safeguard the interest of investors, depositors and shareholders. The commercial banks need to comply with these prudential, which have also provided the challenges to the commercial banks of Nepal. Among these, the loan loss provisioning and capital adequacy measures have been providing the major challenges to Nepalese commercial banks. That is why; the researcher has mainly focused on the credit risk.

Likewise, the plan for implementation of Basel II from 2007 in Nepal in parallel way has also been a challenge for Nepalese Commercial Banks. Basel II is mainly concerned with the management of various types of risks and the capital framework for providing enough cushions to absorb the risks faced by commercial banks. The Basel II has categorized Nepal as the high-risk country with ECA (Export Credit Rating Agencies) rating 7. This means that the Nepalese Commercial banks assets are rated risky up to 150%. (Basel, 2005).

1.4. Objectives of the Study

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 (NABIL and MBL).
- To analyze the credit risk management system and practices of NABIL and MBL.
- To compare the liquidity management, asset management efficiency, profitability position, risk position, investment practices of aforesaid Banks.
- To determine the impact of deposit in liquidity and its effect on lending practices.
- To offer suitable suggestions based on findings of this study.

1.5. Significance of the Study

Banking sector is vital sector for economic growth in a country. For the growth and development of this sector, proper management of credit risk by considering the return is required. In today's competitive scenario, several macro economic factors such as political, economical, social and technological factors have increased the challenges to the banking sector. The success of any organization is largely dependent on how properly the organization can manage the risk. Banking sector involves several risks, which need to be handled promptly for the survival and growth. As this research is made mainly to analyze the credit risks and their management in reference to NRB directives and measures, it will provide valuable insight to different stakeholders about the major problems of banks and bank's action for its management. The key stakeholders who will be largely facilitated by this research includes,

Commercial banks under study will highly be benefited by this research. This research identifies their current credit risk management styles, NRB guidelines on credit risk management and organization of basic compliance of such guidelines etc. Further, the banks will know not only the current performance but also the idea about their strength and weaknesses.

Individuals, who have keen interest in Nepalese economy and banking sector, will be benefited. This research provides an insight into the organizational credit risk management patterns within the standards set by NRB.

Policymakers will also be benefited as this paper identifies the problems in credit risk management and identifies the need for formulation of new policies or amendment of old policies.

Investors, depositors, borrowers also know about the credit risks with these banks to carry out business.

1.6. Limitations of the Study

The outcome of the study is an individual effort. Therefore management, resource mobilization and time constraints limit the in-depth study of all commercial banks operating except commercial banks under study.

The study is based on secondary data but somewhere personal interview and questionnaire are asked for proper data. Therefore, any changes in the general view, concepts and behavior of the people before and after the period are not included in the study. Therefore, the accuracy of results and conclusions highly depends on the reliability of these facts and the time and situation of data collection.

The evaluation is made through the analysis of financial statement published and presented by the banks. Therefore, generalization of the whole banking industry cannot be made.

The secondary data of only five years are taken i.e. from 2003/4 to 2007/8. Inaccessibility of sufficient information also limits the conclusion drawn from study.

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, focus of the study, problems of the study, objectives of the study and need or significance of the study and limitation of the study. It is oriented for readers for reporting giving them the perspective they need to understand the detailed information about coming chapter.

Chapter-II: Review of literature

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

Chapter-III: Research Methodology

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

Chapter-IV: Presentation and Analysis of data

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

Chapter-V: Summary, Conclusion and Recommendation

On the basis of the results from data analysis, the researcher concluded about the performance of the concerned organization for better improvement.

Bibliography, appendix and other supporting documents have also been incorporated at the end of the study.

CHAPTER - II
REVIEW OF LITERATURE

This chapter presents the conceptual review of credit risk management including different types of risk that exist in Bank, credit risk management system and credit risk management frame work and techniques. The Central Bank's regulations regarding the risk management has been also discussed. This chapter focuses on the review of literature relevant to understand credit and credit management of Bank. There are some books, journals, articles, other studies done related with lending and investment aspect of banks. Some of the relevant studies, literatures on lending and investment are reviewed below. This chapter is categorized into two different headings.

- The conceptual Review

- 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.

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 (Leippoldy; 2003).

2.2 Review of NRB Directives Related to Credit Risk

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 and Loan Loss Provision.

2.2.1.1. Classification of Loans and Advances

i. 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.

ii. 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.

iii. Doubtful Loan

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

iv. 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.

a. 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.

b. 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.

c. 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.

d. The principal and interest amount cannot be charged by overdrawing the current account of the borrowing client or by exceeding the overdraft limit of the client.)

The principal and interest amount cannot be recovered by overdrawing the current account of the borrower.

e. 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".

f. 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.

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

2.2.2. 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.

2.2.3. 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

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 Articles

Santomero (1997), has analyzed the various risk faced by commercial banks. According to him, the major risk of commercial bank includes credit, market risk, interest risk, counterparty risk and liquidity risk. He has categorized this risk into following categories:

i. Risk that can be eliminated by simple business practices.
ii. Risk that must be actively managed at the firm level.

iii. Risk that can be transferred to other participants.

According to him, the main reason for the risk management is:

i. Managerial self interest
ii. Non linearity of tax structure
iii. Cost of financial distress
iv. Existence of capital market imperfection.

The main method prescribed in his research for credit risk management includes:

- Sound evaluation of credit rating and making rating system compatible.
- Credit losses, currently regularly related to credit rating, need to be closely monitored.
- Sound analysis of the evaluation of the diversified portfolio.

Basel Committee on Banking Supervision (2000), has mentioned that the main reason of serious problems in banking sector is related to lack of credit standards for borrowers and counterparties, poor portfolio risk management or lack of attention to changes in economic or other circumstances that can led to a deterioration in the credit standing of a bank's counterparties. This phenomenon is common for both G 10 and non G 10 Countries.

In this publication, the credit risk has been defined as the potential that a bank borrower or counterparty will fail to meet its obligation in accordance with the agreed terms. Five principal has been laid down for the credit risk management. They are:

i. Establishing appropriate credit risk environment
ii. Operation under sound credit granting process
iii. Maintaining appropriate credit administration, measurement and monitoring process
iv. Ensuring adequate controls over credit risk
v. Effective role of supervisor

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.

Mundul, (2008), Understanding of credit derivative Business Age September" emphases Credit derivative enable financial institution and companies to transfer credit risk to a third parity and thymus reduce their exposure to the risk of an obligor's default. Credit enhancement technique, which helps reduce the credit risk of an obligation, play a key role in encouraging loans and investment in debts. In legal term credit derivative are privately negotiated bilateral contract to transfer credit risk from one party to another. Some credit enhancement methodologies have existed for the in debts. Some credit enhancement methodologies have existed for a longtime with the support of guarantee, letter of credit or insurance product. However such mechanism works best during economic upturns. As an alternative to commercial risk mechanism, various financial mechanisms have been developed over the past few decades. Such credit risks instruments are normally refer to as credit derivatives. Credit derivative helps to transfer credit risk away from the lender to some other party. Now credit derivative grew popular both as tools for hedging credit risk exposure as well as method of investing in certain types of credit risk.

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

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

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

2.4 Review of Thesis

Pandey (2002), has carried out study 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:

A. Increase in operational procedures of the bank, which increase the operational cost of the bank.
B. A short term decreases in profitability, which result to fewer dividends to shareholders and less bonus to the employees.
C. Reduction in the loan exposure of the bank, which decreases the interest income but increase the protection of the depositor's money.
D. Increase protection to the money of the depositors through increased capital adequacy ratios and more stringent loan related documents.
E. 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 Limited and Nepal SBI Bank Limited, 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 income 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:

1. To determine impact of deposit in liquidity and its effect on lending practices.

2. To know the volume of contribution made by both bank in lending.
3. To examine lending efficiency and its contribution in profit.
4. 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:

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

6. Trend analysis of total deposit of NSBL and NBBL are found in increasing trend. The increment ratio on deposit of NSBL is lower in comparison to NBBL.

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 the study to analyze in his thesis "Risk Management of Commercial Banks in Nepal A comparative study between Kumari Bank Ltd. and Machhapuchchhre Bank Ltd." how the selected commercial banks (have managed different types of risk in this competitive Nepalese banking Industry. The major objective of this thesis was:

1. 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.

Bishal (2006), took following objective in his study of "Lending policy of Joint Venture Banks". The main objective of his study is to analyze the fund mobilizing policy adopted by NABIL and Himalayan Bank Limited. The specific objectives of the study are as follows:

- To measure the relationship of total deposits with total investment, loan and advances and net profit.
- To evaluate the comparative growth ratio on total investment, loans and advances, total deposits and net profit of HBL and NABIL Bank Limited.
- To evaluate financial and investment efficiency, profitability and liquidity position of HBL and NABIL Bank Limited.

- To analyze the sources and uses of funds of HBL and Nabil Bank Limited.

To achieve the objectives of the study, descriptive an analytical research design has been used for secondary data. Some statistical and financial tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate funds mobilizing performance of HBL and compare to Nabil Bank Limited.

In findings, the mean ratio of cash and bank balance to total deposits and investment on government securities of HBL is more consistent and that of NABIL. The average study of cash and bank balance to current assets ratio, investment on government securities, the mean ratio of loan and advances to total deposits, the mean ratio of investment on government securities to total working fund, return on loan and advances and return on working funds HBL is more consistent than that of NABIL. The mean ratio of total interest paid to total working fund, liquid funds, correlation coefficient between deposit and total investment, between deposit and loan and advances, growth rate of loan and advances and liquidity risk ratio of HBL is higher than NABIL. But the capital fund, yearly growth rate of net profit of NABIL is better in comparison to HBL. The total deposits to total investment ratio of HBL and NABIL are in increasing trend. There is significant difference between mean ratios of loan and advances to total deposits and total investment to total deposit of HBL and NABIL.

From the above analysis, it can be concluded that the liquidity position of NABIL was not satisfactory whereas HBL is comparatively better than that of NABIL. NABIL has made enough investment in government securities than HBL.

NABIL seems stronger in earning interest from working fund than HBL and it has also been successful to collect its working fund from less expensive sources. Growth rate of NABIL on loan and advances and total investment are too weak in comparison to HBL. HBL borrowing is an indication that the internal fund management than NABIL. Deposits and total investment, deposits and loan and advances of HBL and NABIL indicate high degree of positive correlation. In most of the cases it has been found that loan and advances and investment decision depends upon other variables. So the calculation of probable error also supports significant relationship. By considering the trend values also, HBL seems to be more successful than NABIL to utilize its total collected deposits in investment, deposit utilization trend in relation to loan and advances. In case of testing of hypothesis it can be concluded that there is significant difference between mean ratio of loan and advances to total deposits of HBL and NABIL and there is no difference between mean ratios of total investment to their total deposits.

Shrestha (2008) on her research "A study on the credit risk management of Nepalese Commercial Banks" aims following objective taking Kumari Bank Limited and Machhapuchchhre Bank Limited.

- To examine the credit risk position of the selected commercial banks in Nepal
- 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 analyses of credit risks, following major findings have been obtained:

1. 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 up to 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 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 1st 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 2nd and 3rd 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. Lending analysis 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.

In conclusion, the major banking risks include credit risk, market risk (i.e. liquidity risk, interest risk, operation risk etc). Among these risks, credit risk has the major impact on banking (i.e. more than 60 %). Because of the credit risk, the Non Performing Loan

(NPL) of bank will increase. With the increase in NPL, the loan loss provisioning will also increase simultaneously leading to decrease in profit. The decrease in profit results in low dividend to shareholder and bonus to employees.

To remain alert and prepare plans and policies to tackle unpredictable factors such as violence riots, natural disaster, technology and employees, fault and fraud of customers and outsiders are the challenges for these commercial banks.

For proper management of the credit risk, both banks have their own set of policies and practices, which is in consistence with NRB guidelines. 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. Organizational structure of these banks is frequently restructured for proper credit risk management as per requirement.

For minimizing the loss arising due to occurrence of the credit risks, capital adequacy 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.

Though both the banks have their own set of procedures for assessing various risks and their management, problems are still prevalent in these banks. In credit risk, single sector loan concentration is the main problem in both the banks. In MBL, the major problem is a high amount of lending in manufacturing sector, lending without collateral, non-performing loan & organizational structure for handing credit risk. In KBL, with the increase in total loan, NPL is also increasing. So, proper adjustment is needed for managing the NPL.

2.5 Research Gap

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make this study meaningful and purposeful. There is various researchers conduct on investment policy, lending practice, credit policy, financial performance and of various commercial banks. In order to perform those analysis researchers have used various ratio analysis. The past researches in measuring credit risk management of bank have been focused on the limited ratios, which are incapable of solving the problems. In this research various ratio are systematically analyzed and generalized. Past Researchers are not properly analyzed about investment and its impact on the profitability. The ratios are not categorized according to nature. Here in this research all ratios are categorized according to their area and nature.

In this study of credit risk management of Nabil Bank Limited & Machhapuchchhre Bank Limited is measuring by various ratios, trend analysis and various statistical tools as well and financial tools are used for analyzing survey data. Since the researcher have used data only five fiscal year but all the data are current and fact. Clearly these are the issue in Nepalese commercial bank the previous scholar could not the present facts. This study tries to define investment policy by applying and analyzing various financial tools like liquidity ratio, asset management, profitability ratio, credit risk ratio and other ratio as well as different statistical tools like coefficient of correlation and trend analysis. Probably this will be the appropriate research in the area of credit risk management of Bank and financial institutions.

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

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

3.2 Research Design

To achieve the objective of this study, analytical and descriptive research designs have been used.

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. So 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 Population and Sample

The objective of the research is to explore and describe the credit risk management in Nepalese banking industry. However, with regard to the availability of the financial information, two samples were identified purposively from the banking sector.

Here, the total 25 commercial banks shall constitute the population of the data and single bank under the study constitute the sample under the study. So among the various commercial banks in the banking industry, Here Nabil Bank Limited and Machhapuchchhre Bank Ltd have been selected as sample for the present study. Likewise, financial statements of five years are selected as samples for the purpose of it.

Sample Bank

Nabil Bank Limited

Machhapuchchhre Bank Limited

3.5 Data Collection Procedure

Different tools and techniques were adopted while collecting the data for this study. Collected secondary information was analyzed during the course of the deskwork. However, during the desk study, an information gap was found. This gap was fulfilled by the discussion with the thesis advisor and banking experts and NRB officials.

3.6 Data Analysis Tools

Presentation and analysis of data is one of the important part of the research work. The collected raw data will first be presented in systematic manner in tabular form and then will be analyzed by applying different financial and statistical tools to achieve the research objectives. Besides these some graph charts and tables will be presented to analyze and interpret the findings of the study. The tools applied are-

1 Financial Tools

2 Statistical Tools

3.7 Financial Tools

i) Liquidity Ratios:

This ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short-term obligations. As a Financial Analytical tools, following liquidity ratios will be used.

a.) 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.

b.) Cash and Bank Balance to Total Deposit Ratio: Cash and bank balances are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositor. This ratio can be computed by dividing cash and bank balance by total deposit and can be presented as:

$$\text{Cash and bank balance to total deposit ratio} = \frac{\text{Cash \& bank balance}}{\text{Total deposits}}$$

Cash and bank balance includes cash in hand, foreign cash in hand, cheques and other cash items, balance with domestic and foreign banks. The total deposit includes deposits made by customers though different accounts like current (demand deposit), saving, fixed deposit, call deposit and other deposit accounts.

c.) Cash and Bank Balance to Current Assets Ratio: This ratio measures the proportion of most liquid assets viz. cash and bank balance among the total current assets of the bank. Higher ratio shows the bank's ability to meet its demand for cash. The ratio is computed by dividing cash and bank balance by current assets, presented as under;

Cash and bank balance to current assets ratio = $\dfrac{\text{Cash \& bank balance}}{\text{Current assets}}$

d.) Investment on Government Securities to Total Current Assets Ratio: This ratio is calculated to find out the percentage of current assets invested on government securities viz. treasury bills and development bonds. The ratio is stated as under;

Investment on Govt. securities to total current assets ratio =

$$\frac{\text{Investment on Govt. Securities}}{\text{Current assets}}$$

ii) Assets Management Ratios:

Asset management ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensures its effective utilization. The banking business converts the liability into assets by way of its lending and investing functions. The following are the various ratios relating to determine the efficiency of the subjected bank in managing its assets and in portfolio management.

a.) Loan and Advances to Total Deposit Ratio: This ratio is also called credit- deposit ratio (C D ratio). It is calculated to find out how successfully the bank is able to utilize its total deposits on loan and advances for profit generating purpose. Greater ratio implies better utilization of total deposits. This ratio can be obtained by dividing loan and advances by total deposit as under;

Loan & Advances to total deposit ratio = $\dfrac{\text{Loan \& advances}}{\text{Total deposits}}$

b.) Total Investment to Total Deposit Ratio: Investment is one of the major forms of credit creation to earn income. This implies the utilization of firm's deposit on investment on government securities, shares &debentures of other companies and banks. This ratio can be calculated by total investment divided by total deposit as:

$$\text{Total investment to total deposit ratio} = \frac{\text{Total investment}}{\text{Total deposits}}$$

c.) Loan and Advances to Working Fund Ratio: Loan and advances is the major component in the total working fund (total assets), which indicates the ability of bank to utilize its deposits in the form of loan and advances to earn high return. The ratio is computed by dividing loan and advances by total working fund, which is stated as under;

$$\text{Loan and advances to working fund ratio} = \frac{\text{Loans and advances}}{\text{Total working fund}}$$

d.) Investment on Government Securities to Total Asset Ratio: This ratio shows that bank's investment on government securities in comparison to the total working fund. This ratio can be computed by dividing investment on government securities by total working fund, which can be presented as;

Investment on Govt. Securities to total working fund =

$$\frac{\text{Investment on Govt. Securities}}{\text{Total working fund}}$$

e.) Total outside Assets to Total Deposits Ratio: Loans and advances and investment comprise the total outside assets of a bank. This ratio measures how well the deposits liabilities have been mobilized by the bank in income generation. This ratio is computed by dividing total loan and advances and investment by total deposits, which can be stated as under;

$$\text{Total outside assets to total deposits ratio} = \frac{\text{Total outside assets}}{\text{Total deposits}}$$

f.) Loan and Advances to Total outside Assets Ratio: This ratio measures the proportion of loans and advances of total outside assets. The proportion between investment and loans and advances measures the management attitude towards more risky assets and lower risky assets. This ratio is computed by dividing loan and advances by total outside assets as under:

$$\text{Loan and advances to total outside assets ratio} = \frac{\text{Loan and advances}}{\text{Total outside assets}}$$

g.) Investment on Government Securities to Total outside Assets Ratio: This ratio measures the proportion of the bank's investment in risky and risk free areas. This ratio is computed by dividing investment on government securities by total outside assets as under;

Investment on Govt. Securities to total outside assets ratio =

$$\frac{\text{Investment on Govt. Securities}}{\text{Total outside assets}}.$$

h.) Total outside Assets to Total Assets Ratio: Loans & advances and investment are total outside assets of commercial banks. This ratio is calculated by dividing total outside assets, which can be presented as under;

$$\text{Total outside assets to total assets ratio} = \frac{\text{Total outside assets}}{\text{Total assets}}$$

This is the proportion of assets employed by the bank for the purpose of income generation. This ratio shows the ability of the bank to utilize the funds into income generating assets.

iii) Profitability Ratios:

Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. For better performance, profitability ratios of firm should be higher. Under this, the following profitability ratio will be computed.

a.) Interest Income to Total Income Ratio: This ratio measures the volume of interest income in total income of the bank. The high ratio indicates the high contribution made by the lending and investing and vice-versa. This ratio can be completed by dividing interest income by total income presented as under;

$$\text{Interest income to total income ratio} = \frac{\text{Interest income}}{\text{Total income}}$$

b.) Total Interest Earned to Total outside Assets Ratio: This ratio measures the interest earning capacity of the bank through the efficient utilization of outside assets. Higher ratio implies efficient use of outside assets to earn interest. This ratio is calculated by dividing total interest earned by total outside assets and can be mentioned as under;

$$\text{Total interest earned to total outside assets ratio} = \frac{\text{Total interest earned}}{\text{Total outside assets}}$$

The numerator includes total interest income from loans and advances and investment where as the denominator comprises loan and advances, bills purchased and discounted and all type investment.

c.) Interest Expenses to Total Expenses Ratio: This ratio measures the portion of total interest expenses in the volume of total expenses. The high ratio indicates the low operation efficiency and vice-versa. This ratio is calculated by dividing interest expenses by total expenses which can be presented as under;

$$\text{Interest expenses to total expenses ratio} = \frac{\text{Interest expenses}}{\text{Total expenses}}$$

d.) Total Interest Earned to Total Working Fund Ratio: This ratio is computed to find out percentage of interest earned to total assets (working fund). Higher ratio implies better performance of the bank in terms of interest earning on its total working funds. This fund is computed by dividing total interest earned by total working fund can be presented as;

$$\text{Total interest earned to total working fund ratio} = \frac{\text{Total interest Earned}}{\text{Total working fund}}$$

e.) Total Interest Paid to Total Working Fund Ratio: This ratio depicts the percentage of interest paid on liabilities with respect to total working fund which can be presented as;

$$\text{Total interest paid to total working fund ratio} = \frac{\text{Total interest paid}}{\text{Total working fund}}$$

f.) Total Income to Total Expenses Ratio: The comparison between total income and expenses measures the productivity of expenses in generating income .The amount of income that a unit of expenses generates is measured by the ratio of total income to total expenses. The high ratio is the indication of higher productivity of expenses and vice-versa. This ratio is computed by dividing total income by total expenses presented as;

$$\text{Total income to total expenses ratio} = \frac{\text{Total income}}{\text{Total expenses}}$$

g.) Total Income to Total Working Fund Ratio: This ratio measures how efficiently the assets of a business are utilized to generate income. It also measures the quality of assets in income generation. This ratio is calculated by dividing total income by total assets as stated here under;

$$\text{Total income to total working fund ratio: } \frac{\text{Total income}}{\text{Total working fund}}$$

h.) Return on Loan and Advances Ratio: This ratio indicates how efficiently the bank utilizes its resources in the form loans and advances. This also measures the earning capacity of its loans and advances. This ratio is computed by dividing net profit (loss) by loans and advances which can be expressed as;

$$\text{Return on loan and advances ratio} = \frac{\text{Net profit (loss)}}{\text{Loans \& advances}}$$

i.) Return on Total Working Fund Ratio (ROA): This ratio measures the overall profitability of all working fund i.e. total assets. It is also known as return on assets (ROA). This ratio is calculated by dividing net profit (loss) by total working funds. This can be presented as;

$$\text{Return on total working fund ratio (ROA)} = \frac{\text{Net profit (loss)}}{\text{Total working fund}}$$

The numerator indicates the portion of income left to the internal equities after deduction all costs, charges and expenses.

j.) Return on Equity (ROE): Net worth refers to the owner's claim of a bank. The excess amount of total assets over total liabilities is known as net worth. This ratio measures how efficiently the bank has used funds of the shareholders. This ratio can be computed by dividing net profit by total equity capital (net worth). This can be calculated as;

$$\text{Return on Equity (ROE)} = \frac{\text{Net profit (loss)}}{\text{Total equity capital}}$$

Here, total equity capital includes shareholders' reserve including profit and loss account, general loan loss provision and share capital i.e. ordinary share preference share capital.

k.) Loan Loss Provision to Total Loans and Advances Ratio: This ratio describes the quality of assets that a bank is holding. Nepal Rastra Bank has directed the commercial banks to classify its loans and advances into the category of pass, sub-standard, doubtful and loss on the basis of the maturity of principal to make the provision of 1, 25, 50, and

100 percentages respectively. The provision for loan loss reflects the increasing probability of non-performing loans in the volume of total loans and advances. This ratio is calculated by dividing the loan loss provision by total loans and advances as presented here under;

$$\text{Loan loss provision to total loans and advances ratio} = \frac{\text{Total loan loss provision}}{\text{Loans and advances}}$$

l.) Non-Performing Loans to Total Loans and Advances Ratio: This ratio measures the proportion of non- performing loans on the total volume of loans and advances. This reflects the quantity of quality assets that the bank has. Higher ratio reflects the poor performance of bank in mobilizing loans and advances and bad recovery rate and vice-versa. This ratio is computed by dividing the non-performing loans by total loans and advances as under;

Non-performing loans to total loans & advances ratio =

$$\frac{\text{Total non - performing loans}}{\text{Total loans \& advances}}$$

iv. 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 MBL.

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.

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:

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

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:

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

v. Other Ratios

a) Earning per Share (EPS): EPS refers to net profit divided by total numbers of share outstanding. EPS measure the efficiency of a firm in relative terms. It is a widely used ratio, which measures the profit available to the ordinary shareholders as per share basis.

The amount of EPS measures the efficiency of a firm in relative terms. This ratio is calculated as;

$$\text{Earnings per Share (EPS)} = \frac{\text{Net profit (loss)}}{\text{Total number of shares outstanding}}$$

b) Dividend per Share Shareholders want to receive dividend from their investment. They may have interest to know about the firm's activities, earning, and dividend so; each firm must announce the total dividend and dividend per Share which shows the position of the firm.

A firm wants to distribute dividend to its shareholder if a firm suppose the insufficient investment opportunities and sector. Sometimes, it does not distribute dividend and sometime issues bonus shares. On the other hand, shareholders want to receive dividend from their investment. They may have interest to know about the firm’s activities, earning, divisible profit or proposed dividend or declared dividend. So, each firm must announce the total dividend and dividend per share which show the position of the firm.

c) Market Price per Share

Market price per share is the price at which shares are traded in the stock market. The secondary markets provide liquidity for securities purchased in primary market. Generally MPS is determined through supply and demand factors.

d) Price Earning Ratio

This ratio is closely related to the earning per share. It is calculated by dividing the market value per share by EPS. Price earning ratio indicates investor’s judgments or expectation about the firm’s performance. This ratio widely used by the security analysis to value the firm’s performance. This ratio widely used by the security analysis to value the firm’s performance as accepted by investors. Price earning ratio reflects investor expectations about the growth in the firm’s earning. Higher ratio indicates the more value of the stock that is being ascribed to future earning as opposed to present earning.

Here, total equity capital includes shareholders' reserve including profit and loss account, general loan loss provision and share capital i.e. ordinary share preference share capital.

3.8 Statistical Tools

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

I. Arithmetic Means (average):

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

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

Where:

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

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

N = number of observation

II. Correlation Coefficient (r):

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

Formula

$$r_{x1x2} = \frac{N\Sigma X_1X_2 - (\Sigma X_1)(\Sigma X_2)}{\sqrt{[N\Sigma X_1^2 - (\Sigma X_1)^2]}\sqrt{[N\Sigma X_2^2 - (\Sigma X_2)^2]}}$$

Whereas,

r_{x1x2} = Correlation between X_1 and X_2

$N\Sigma X_1X_2$ = No. of Product observation and Sum of product $X_1$and X_2

$\Sigma X_1\Sigma X_2$ = Sum of Product $X_1$and sum of Product X_2

III. Coefficient of variation (c.v.):

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

$$c.v. = \frac{ó}{x} * 100$$

σ = Standard deviation

x = sum of the observation

IV. Probable Error:

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

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

Here, r = Correlation coefficient

N = Number of pairs of observations

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

V. Times series Analysis

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

$$Y = a + bx$$

Where,

y= Dependent variable

x = Independent variable

a = Y – intercept

b = Slope of the trend line

Y is the dependent variable, a is y intercept or value of y when x = 0, b is the slope of the trend line

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 investment practices of Nabil Bank Limited and Machhapuchchhre Bank Limited 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 MBL. 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 Credit Risk Management of the selected commercial 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
MBL	1.73	1.68	1.43	1.59	2.80	1.85	0.545	0.30

Source: Annual Report 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 MBL is fluctuating 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 NABIL is greater than MBL i.e. 1.89>1.85 due to high mean ratio. So, NABIL is sound in meeting short-term obligation than MBL. Likewise, S. D. and C.V. of NABIL is less than MBL i.e. 0.321 < 0.545 and 0.17 < 0.30. It can be said that C.R. of NABIL is more consistent than MBL.

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 MBL 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
MBL	14.91	13.09	10.31	13.55	14.31	13.23	1.777	0.134

Source: Annual Report of Concern Bank

The above Table No. 4.2 revels that the Cash and Bank Balance to Total Deposit Ratio of NABIL and MBL 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 MBL is 14.91% in FY 2003/04 and lowers in 10.31 in 2005/06.

The mean ratio of NABIL and MBL are 5.67% and 13.23% respectively. MBL 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 MBL is 0.134 times. S.D. of MBL is lower than the NABIL

The above analysis has to conclude that the cash and bank balance position of MBL with respect to NABIL is better in order to serve its customer's deposits. It implies the better liquidity position of MBL from the viewpoint 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 MBL 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 MBL 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
MBL	15.73	18.86	14.98	15.78	17.21	16.51	1.54	0.093

Source: Annual Report of Concern Bank

The above table reveals that cash and bank balance to current assets ratio of NABIL and MBL are in fluctuating trend. The mean ratio of NABIL and MBL is 8.20% and 16.51% respectively. The higher mean ratio shows MBL's liquidity position is better than that of NABIL. Moreover the .S.D and C.V. of NABIL is higher than MBL. The higher C.V. of NABIL indicates that it has more inconsistency in the ratios in comparison to MBL

Regarding the above analysis, it can be concluded that MBL has a better ability to meet daily cash requirements of their customers but it should be noted that MBL 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
MBL	2.73	3.28	16.65	11.69	8.96	8.66	5.855	0.676

Source: Annual Report of Concern Bank

The table 4.4 shows investment on government securities to current assets ratio of NABIL and MBL. 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 MBL is 16.65% in FY 2005/06 and lowest is 2.73% in FY 2003/04.

The mean ratio of NABIL is 30.95 percent, which is higher than the mean ratio of MBL 8.66percent. It means NABIL has invested more money in risk free assets than that of MBL. In another words MBL has emphases on more loan and advances and other short-term investment than investment in govt. securities. For minimization of investment risk, MBL should divert its investment in govt. securities. Similarly, S.D. is 13.45 and 5.855 and C.V is 0.434 and 0.676 of NABIL and MBL respectively. The higher C.V. of MBL shows the more inconsistency in the ratios with compare to NABIL.

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
MBL	90.50	90.60	77.87	75.25	77.84	82.41	7.506	0.091

Source: Annual Report of Concern Bank

The above table shows that the loan & advances to total deposit ratio of NABIL and MBL is fluctuating trends. MBL has higher ratio than that of NABIL in each year and mean too. It indicates the better mobilization of deposit by MBL. The mean of NABIL and MBL are 68.11% and 82.41% respectively. So MBL has higher ratio than that of NABIL. It reveals that the deposit of MBL 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 MBL 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 MBL has 7.506, 0.091.

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 MBL 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
MBL	9.96	8.39	15.09	13.49	13.00	11.99	2.737	0.23

Source: Annual Report of Concern Bank

The above table shows that total investment to total deposit ratio of NABIL and MBL. 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 MBL 15.09% percent in FY 2005/06 and lowest ratio is 8.39% in FY 2004/05.Investment volume of MBL is lower than that of NABIL because more funds of MBL were used in profitable loans to achieve optimum mix of interest earning assets.

The mean of the ratio of NABIL and MBL are 34.40% and 11.99% 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 MBL has lower investment opportunities. The S.D and C.V. of NABIL is 5.163 and 0.15 and MBL has 2.737 and 0.23 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 MBL 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
MBL	72.09	78.13	67.77	65.97	69.15	70.62	4.75	0.067

Source: Annual Report of Concern Bank

The above table shows the loan & advances to total assets ratio of NABIL and MBL are in fluctuating trend during the study period. While observing their ratios; MBL 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 MBL are 56.59% and 70.62% respectively. So MBL has higher ratio than that of NABIL. It reveals that in total assets, MBL has high proportion of loan and advances. MBL has utilized its total assets more efficiently in the form of loan & advances. The higher C.V. of NABIL states that it has less uniformity in these ratios throughout the study period than that of MBL. S.D. and C.V. of NABIL and MBL have 4.66, 4.75 and 0.082 and 0.067 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
MBL	2.06	1.97	9.97	8.80	6.62	5.88	3.73	0.634

Source: Annual Report of Concern Bank

Above table shows that the investment on government treasury bills to Total assets of NABIL and MBL are in fluctuating trend. The highest ratio of NABIL is 35.03% in 2003/04 and MBL is 9.97% in 2005/06. And the lowest ratio of NABIL and MBL are 10.31% in 2005/06 and 2.06% in 2003/04 respectively.

From the table we notice that mean ratio of NABIL and MBL are 18.68% and 5.88% 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 MBL. In another words MBL has emphases on more loan and advances and other short-term investment than investment in govt. securities. For minimization of investment risk, MBL should divert its investment in govt. securities.

There is more inconsistent in the ratio of MBL during the study period, which is indicated by higher C.V. of MBL.

4.1.1.3 Profitability Ratio

The major performance indicator of any firm is profit. The objective of investment policy is to make good return. Any organization has to desire of earning high profited which helps to survive the firm and indicates the efficient operation of the firm. Profit is the essential part of business activities to meet internal obligation, overcome the future contingencies, make a good investment policy, expand the banking transaction etc.

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 MBL.

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
MBL	1.87	1.68	2.18	1.08	0.98	1.56	0.52	0.33

Source: Annual Report of Concern Bank

Above table shows that return on loan and advances ratio of NABIL is in decreasing trend and MBL is also in decreasing trend except in 2005/06. The highest ratio of NABIL is 5.56% in the year 2003/ 2004 and lowest ratio 3.49% in year 2007/2008. The mean ratio is 4.64%.Whereas highest ratio of MBL is 2.18% in year 2005/2006 and lowest ratio is 0.98% in 2007/2008. The mean ratio is 1.56%. NABIL bank shows the good earning capacity in loan and advances whereas MBL 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
MBL	1.35	1.30	1.48	0.71	0.68	1.10	0.38	0.35

Source: Annual Report of Concern Bank

Above table shows the Return on Total Assets of NABIL and MBL. Both banks have decreasing trend of return on its total assets except in 2004/05 of NABIL and except in 2005/06 of MBL. 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 MBL(i.e. 2.61%>1.10).NABIL has also higher ratio in each years.

Where as S.D. and C.V .of NABIL and MBL are 0.39, 0.15 and 0.38 and 0.35 respectively. Higher C.V of MBL 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 reflect 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 MBL 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
MBL	8.42	13.31	14.39	7.68	7.31	10.22	3.36	0.33

Source: Annual Report of Concern Bank

The above listed table shows Return on Equity Ratio of NABIL and MBL. Above calculated statistic indicate that NABIL and MBL both have increasing return on equity ratio in 1st three years and decreasing trend in last two years. NABIL has higher ratios in each year and it has also higher mean ratio (i.e.31.88%>10.22%)

Despite stiff competition and an adverse macro economic environment, NABIL is currently generating higher ROE in comparison with MBL. In brief, it signifies that the shareholders of NABIL are getting higher return but in case of MBL, 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 MBL shows its weakness regarding efficient utilization of its owner's equity in comparison with NABIL. NABIL has homogeneous return in each year. It is the strength point of NABIL.

MBL has relatively more inconsistency 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 MBL

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
MBL	6.22	5.90	6.21	6.43	6.37	6.22	0.21	0.033

Source: Annual Report 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 MBL shows fluctuating trend and it has maintained average ratio 6.22%.MBL has higher ratio in each year except in year 2004/05. The mean ratio of MBL is more than that of NABIL. In comparison, MBL seems effective in earning interest to some extent than that of NABIL.

Moreover, NABIL also has higher inconstancies in the ratios during the study period. It can be concluded that MBL has successfully mobilized their fund in interest generating assets.

E) Total Interest Earned To Total outside Assets Ratio

The main assets of commercial banks are it’s out side assets, which includes loan & advances, investment on government securities, investment on shares and debentures and other all types of investment. Thus, this ratio reflects the extent to which the banks are successful to earn interest as major income on all the outside assets. A high ratio indicates high earning on such total assets and vice-versa. The following Table No. 4.15 exhibits the ratio of total interest earned to total outside assets of NABIL and MBL during the study period.

Table No. 4.13

Total Interest Earned To Total outside Assets Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	7.14	7.20	6.86	6.48	6.32	6.80	0.39	0.057
MBL	7.77	6.91	7.68	8.26	7.90	7.70	0.50	0.065

Source: Annual Report of Concern Bank

Above table shows the total interest earned to total outside assets ratio. The total interest earned to total outside assets ratio of bank NABIL is in decreasing trend except in year 2004/05.whereas ratios of MBL is in fluctuating trend. The highest ratio of NABIL is 7.20 percent in 2004/05 and lowest ratio is 6.32 in 2007/08 and similarly the highest ratio of MBL is 8.26 percent in 2006/07 and lowest ratio 6.91 percent in 2004/05. The mean ratio of NABIL and MBL are 6.80% and 7.70% respectively. Here MBL seems to have more efficiency in generating total interest through well utilizations of outside assets than that of NABIL. But MBL has relatively inconsistent in returns as it has higher C.V than that of NABIL.

F) 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 in interest generating assets. During the 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
MBL	166.59	167.77	157.83	169.74	159.30	164.25	5.33	0.032

Source: Annual Report of Concern Bank

Above table shows Interest Earned to Operating Income Ratio of NABIL and MBL. Both banks has fluctuating ratio during study period. MBL has greater share of total interest earn in its total operating income in each year and mean too. The mean ratio of NABIL and MBL are 102.93 % and 164.25% respectively. MBL 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, MBL 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 & 0.0.98 similarly MBL has 5.33 & 0.032. It indicates NABIL has relatively inconsistent in interest earned to total operating income as it has higher C.V than that of MBL.

G) 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 MBL.

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
MBL	3.28	2.89	3.18	3.68	3.26	3.26	0.284	0.087

Source: Annual Report of Concern Bank

Due to the higher ratio in each year of MBL, it seems less conscious about borrowing cheaper fund. Both banks show fluctuating trend. NABIL has average ratio of 1.76% whereas MBL has maintained average ratio 2.10%. The mean ratio of MBL is more than that of NABIL and MBL has also higher ratio in each year. In comparison, MBL seems ineffective in getting cheaper fund The C. V. of NABIL is greater than the MBL it indicate high risk and insignificant of NABIL rather than MBL.

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 MBL.

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

Non performing Loan to Total Loan 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
MBL	0.98	0.39	0.28	1.16	1.08	0.783	0.41	0.52

Source: Annual Report of Concern Bank

Above table shows that NPL to total loan and advances of NABIL is in decreasing trend except in 2005/06 and MBL is in decreasing trend in 1st three years and in increasing trend in last two years. Decreasing trend is the good sign of the efficient credit management. NABIL seems effective in latest two years and MBL seems effective in beginning three years. From mean point of view, non-performing loan to total loan and advances ratio of NABIL and MBL are1.58 % and 0.783% 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, MBL has efficient operating of credit management than that of NABIL from the mean point of view. However if we see ratios in latest years NABIL has efficient operating of credit management than that of MBL.

(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:

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

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
MBL	14.91	13.09	10.31	13.55	14.31	13.23	1.78	0.13

Source: Annual Report of Concern Bank

The above Table No. 4.17 revels that the Cash and Bank Balance to Total Deposit Ratio of NABIL and MBL 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 MBL is 14.91% in FY 2003/04 and lowers in 10.31 in 2005/06.

The mean ratio of NABIL and MBL are 5.67% and 13.23% respectively. MBL 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:

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
MBL	80.02	85.35	80.90	77.80	80.70	80.95	2.75	0.034

Source: Annual Report of Concern Bank

The above table shows the Asset risk ratio of NABIL and MBL. The analysis shows that NABIL and MBL 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 MBL has the highest and lowest ratio of 85.35% and 77.80% in the year 2004/05 and 2006/07 respectively. The mean ratio of MBL is lower than that of NABIL (i.e.80.95% < 85.98%). the S.D. and C.V. both are higher of MBL i.e. 2.75 > 2.41 and 0.034 > 0.028 than the NABIL.

4.1.1.6 Other Ratios

A) Earning Per Share

EPS measure the efficiency of a firm in relative terms. It is a widely used ratio, which measures the profit available to the ordinary shareholders on per share basis. Earning per share calculation made over years indicates whether the bank's earning power on per share basis has changed over that period or not but it doesn't reflect how much is paid as dividend and how much is retained in the business. Following table shows the EPS of related banks during the study period.

Table No. 4.19

Earning Per Share

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	93	105	129	137	108	114.4	18.11	0.18
MBL	15.43	18.74	9.02	9.25	14.18	13.32	4.17	0.31

Source: Annual Report of Concern Bank

Above table shows that earning price per share of NABIL and MBL. NABIL has increasing trend of EPS except in 2007/08 and MBL has fluctuating trend of EPS. While observing their ratios in overall; NABIL is better mobilizing it resources to get more earning per share (EPS) and it seems quite successful by generating higher EPS in each year and in average too. It is quite satisfying to state that NABIL has been able to maximizing shareholder wealth from the view pointy of EPS. The C.V of MBL is higher than NABIL, it indicates that there is inconsistent in earning per share of MBL than that of NABIL.

B) Dividend per Share

Shareholders want to receive dividend from their investment. They may have interest to know about the firm's activities, earning, and dividend so; each firm must announce the total dividend and dividend per Share, which shows the position of the firm.

A firm wants to distribute dividend to its shareholder if a firm suppose the insufficient investment opportunities and sector. Sometimes, it does not distribute dividend and sometime issues bonus shares. On the other hand, shareholders want to receive dividend from their investment. They may have interest to know about the firm’s activities, earning, divisible profit or proposed dividend or declared dividend. So, each firm must announce the total dividend and dividend per share which show the position of the firm.

Table No. 4.20

Dividend per Share (Rs.)

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	65	70	85	100	60	76	16.36	0.22
MBL	0	0	0.79	0.52	0.52	0.37	0.352	0.95

Source: Annual Report of Concern Bank

The above statistics shows the dividend per share of NABIL is higher than that of MBL in each year and NABIL has also higher mean (i.e76>0.37), it has less variability in dividends during the study period.

it can be concluded NABIL has adopted the policy of paying high amount in the form of cash dividends where as MBL is trying to capitalized its earnings by keeping it in the form of retained earnings. It is noted that MBL provided dividend for tax adjustment of bonus share.

C) Market Price per Share

Market price per share is the price at which shares are traded in the stock market. The secondary markets provide liquidity for securities purchased in primary market. Generally MPS is determined through supply and demand factors.

Table No. 4.21

Market Price Per Share (in Rs)

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	740.00	1000	1505	2240	5050	2107	1741.8	0.83
MBL	125	256	320	620	1265	517.2	455.7	0.88

Source: Annual Report of Concern Bank

This table shows market price of the share of NABIL and MBL. Both banks have increasing trend of Market price. It indicates better performance of company and high expectation by shareholder. Average mean price of NABIL is greater than that of MBL (i.e. 2107 > 517.2). It indicates that shareholder of NABIL are getting higher price. The C.V. of MBL is little bit high it indicates that MBL has little bit inconsistent in its market price.

D) Price Earning Ratio

This ratio is closely related to the earning per share. It is calculated by dividing the market value per share by EPS. Price earning ratio indicates investor's judgments or expectation about the firm's performance. This ratio widely used by the security analysis to value the firm's performance. This ratio widely used by the security analysis to value the firm's performance as accepted by investors. Price earning ratio reflects investor expectations about the growth in the firm's earning. Higher ratio indicates the more value of the stock that is being ascribed to future earning as opposed to present earning.

Table No. 4.22

Price Earning Ratio

Name of Banks	Fiscal Year							
	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.
NABIL	10.80	14.27	17.34	36.84	48.70	25.59	16.40	0.64
MBL	14.72	16.59	17.08	68.74	124.19	48.26	48.18	0.99

Source: Annual Report of Concern Bank

Above table shows that price-earning ratio earning of NABIL and MBL are in increasing trend. From the mean point of view, mean ratio of the NABIL and MBL are 25.59 and 48.26 times respectively. It indicates that for getting Rs 1 as earning, one should invest Rs 25.59 in NABIL and Rs 48.26 in MBL. Looking the mean ratio we conclude that in short run, investor of MBL are getting better profitability because they are selling their shares in high price although EPS of MBL is lower in comparison than that of NABIL. But from the long term view and sustainable fair price, investor of NABIL will get better profitability and they will be in safe side in comparison with MBL as low ratio is preferable for fair and sustainable market price.

The S.D and C.V of MBL is high than the MBL it indicate its risk to invest in MBL rather than in the NABIL.

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 MBL 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
MBL	0.993	0.986	0.00422	0.0253

Source: BY SPSS Data Editor

From the above table, it is found that coefficient of correlation between deposits and loan & advances of NABIL and MBL is 0.989 and 0.993. It is shows that both have the positive relationship between these two variables. It refers that deposit and loan & advances of NABIL and MBL move together very closely. Moreover, the coefficient of determination of NABIL is 0.978. It means 97.80 percent of variation in loan & advances has been explained by deposit. Similarly, value of coefficient of determination of MBL is 0.986. It refers that 98.6 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 MBL 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
MBL	0.965	0.931	0.0208	0.125

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 MBL, which is indicator by correlation coefficient of 0.965. The value of coefficient of determination is found 0.931 this refers that 93.1 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 MBL

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

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 MBL 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 MBL 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
MBL	0.457	0.209	0.2382	1.4291

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 MBL also low degree positive correlation i.e. 0.457 between Loan and advance and net profit. The coefficient of determination R^2 is 0.209, which indicates that 20.9 percent variability in net profit is explained by Loan and advance. Moreover, less correlation coefficient than 6P.Er. Shows that the relationship between Loan and advance and net profit is insignificant for MBL. In conclusion, NABIL has more significant relationship between Loan and advance and net profit than that of MBL.

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
MBL	0.535	0.286	0.21	1.29

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 MBL has moderate positive correlation between total investment and net profit i.e. 0.535. The coefficient of determination of MBL is 0.286 It means 28.6 percent of Profit is contribute by total investment but this relationship is insignificant as its correlation coefficient is lower than 6 P.Er. i.e. 0.097.NABIL has more significant relationship between total investment and net profit than that of MBL

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

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

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

Table No. 4.27

Correlation between Total Deposit of NABIL and MBL

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.923	0.852	0.0447	0.2674

Source: Through SPSS Data Editor

This table shows how the total deposit of NABIL and MBL is related. 0.923 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 0.935 of coefficient of determination, this shows the 93.5 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 MBL

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 MBL

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.816	0.6659	0.1006	0.6037

Source: Through SPSS Data Editor

The above table reveals that there is moderate positive correlation between NABIL and MBL in case of total investment. It implies that the total investment of NABIL and MBL move in the same direction. Here R > 6 P.Er. Therefore, correlation coefficient is significant. This can be said that both NABIL and MBL increase its total investment as same direction. The coefficient of determination is 0.6659, which shows the only 66.59 percent of the degree of relationship.

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

Table No. 4.29

Correlation between Loan & Advances of NABIL and MBL

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.948	0.899	0.0305	0.1830

Source: Through SPSS Data Editor

Above table shows that there is high degree positive correlation between the loan & advances of NABIL and MBL. The correlation coefficient between two banks is 0.948. 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 0.899 which shows the 89.9 percent of the degree of relationship.

H) Coefficient of Correlation of Net Profit between NABIL and MBL

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 MBL

Evaluation Criterions			
R	R^2	P.Er.	6 P.Er.
0.451	0.2034	0.2399	1.44

Source: Through SPSS Data Editor

Above statistics shows that there is high degree positive correlation between profits of NABIL and MBL, which is indicated by correlation coefficient of 0.451, This relationship is insignificant because its correlation coefficient is greater than 6 P.Er. The coefficient of determination is 0.2034 which shows the 20.34 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 Limited and Machhapuchchhre Bank Limited 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,

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

NABIL

a =20662

b = 4434.7

MBL

a = 7362.49

b = 2058.388

Where as

Yc = 20662 + 4434.7 X of NABIL

Yc = 7362.49 + 2058.388 X of MBL

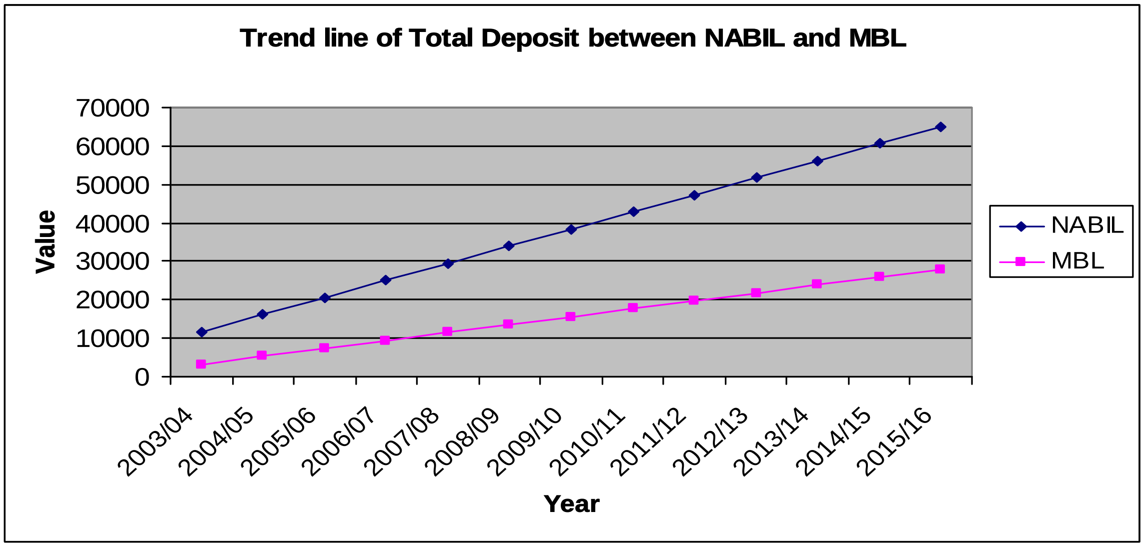
Table No. 4.31

Trend analysis of Total Deposit of NABIL and MBL		
Year(x)	NABIL	MBL
2003/04	11792.6	3245.71
2004/05	16227.3	5304.1
2005/06	20662	7362.49
2006/07	25096.7	9420.88
2007/08	29531.4	11479.3
2008/09	33966.1	13537.7
2009/10	38400.8	15596
2010/11	42835.5	17654.4
2011/12	47270.2	19712.8
2012/13	51704.9	21771.2
2013/14	56139.6	23829.6
2014/15	60574.3	25888
2015/16	65009	27946.4

Source: Annul Report of Concern Bank

Appendix -1

Figure No 4.1



Above table and figure shows that total deposit of NABIL and MBL. Both Banks is in increasing trend. The rate of increment of total deposit for NABIL seems to be higher than that of MBL. The increasing trend of total deposit of NABIL is more aggressive and high rather than MBL. It indicates NABIL 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 NABIL has higher position in collecting deposit than MBL.

B) Trend Analysis of Loan & advances

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

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 MBL

a = 13721.91 a = 5894.676

b = 3130.973 b = 1436.688

Yc = 13721.91 + 3130.973 X of NABIL

Yc= 5894.676 + 1436.688 X of MBL

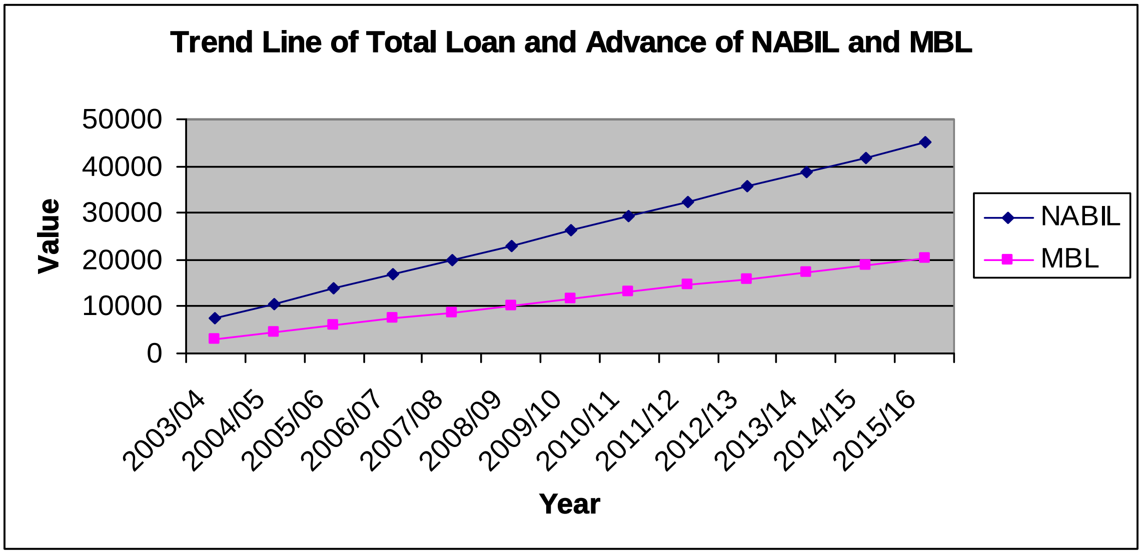
Table No. 4.32

Trend line of Total Loan and Advance of NABIL and MBL		
Year(x)	NABIL	MBL
2003/04	7459.96	3021.3
2004/05	10590.9	4457.99
2005/06	13721.9	5894.68
2006/07	16852.9	7331.36
2007/08	19983.9	8768.05
2008/09	23114.8	10204.7
2009/10	26245.8	11641.4
2010/11	29376.8	13078.1
2011/12	32507.7	14514.8
2012/13	35638.7	15951.5
2013/14	38769.7	17388.2
2014/15	41900.7	18824.9
2015/16	45031.6	20261.6

Source: Annul Report of Concern Bank

Appendix - 2

Figure No 4.2



Above table depicts that loan & advances of NABIL and MBL. Both Banks has in increasing trend. The increasing trend of NABIL is higher than MBL . The actual value of loan & advances for MBL is quite fluctuating in relation to NABIL. 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 MBL is mobilizing its collected deposits and other funds in the form of loan & advances. Above table and figure shows the NABIL has highly mobilizing loan & advances than the MBL.

C) Trend Analysis of Total Investment

Under this topic, an attempt has been made to analyze trend analysis total investment of NABIL and MBL 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 MBL

a = 7033.358 a = 931.174

b = 1288.572 b = 314.814

Yc = 7033.358 + 1288.572 X of NABIL

Yc = 931.174 + 314.814 X of MBL

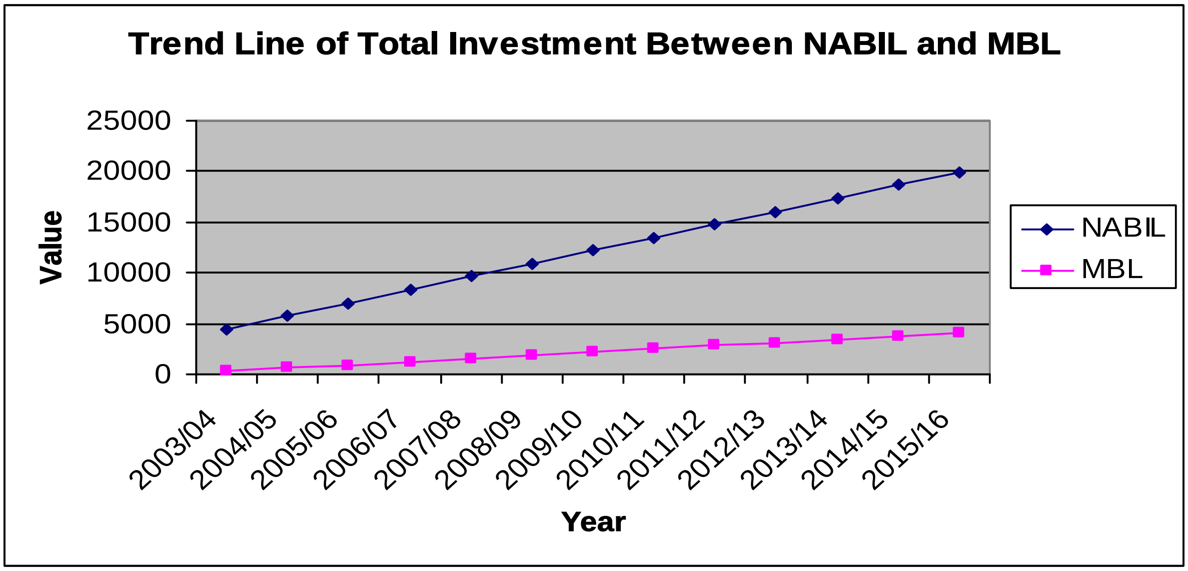
Table No. 4.33

Trend Line of Total Investment Between NABIL and MBL		
Year(x)	NABIL	MBL
2003/04	4456.21	301.546
2004/05	5744.79	616.36
2005/06	7033.36	931.174
2006/07	8321.93	1245.99
2007/08	9610.5	1560.8
2008/09	10899.1	1875.62
2009/10	12187.6	2190.43
2010/11	13476.2	2505.24
2011/12	14764.8	2820.06
2012/13	16053.4	3134.87
2013/14	17341.9	3449.69
2014/15	18630.5	3764.5
2015/16	19919.1	4079.31

Source: Annul Report of Concern Bank

Appendix -3

Figure No 4.3



Above table shows the Trend of Total Investment between NABIL and MBL. Both Bank NABIL and MBL have increasing trend in making investment. NABIL has little high and upward trend of increasing, but MBL 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 MBL. The figure indicates NABIL has highly mobilized the total investment rather than MBL.

D) Trend Analysis of Net Profit

Here, the trend values of net profit of NABIL and MBL 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

a = 606.048

b = 73.712

MBL

a = 85.476

b = 6.859

Yc = 606.048 + 73.712 X NABIL

Yc= 85.476 + 6.859 X MBL

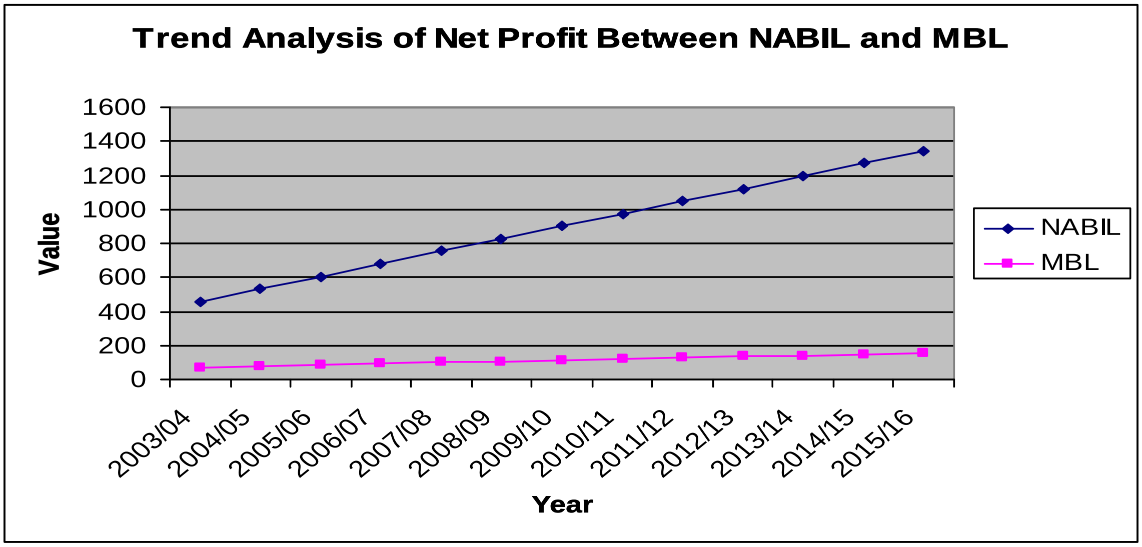
Table No. 4.34

Trend Analysis of Net Profit Between NABIL and MBL		
Year(x)	NABIL	MBL
2003/04	458.624	71.758
2004/05	532.336	78.617
2005/06	606.048	85.476
2006/07	679.76	92.335
2007/08	753.472	99.194
2008/09	827.184	106.053
2009/10	900.896	112.912
2010/11	974.608	119.771
2011/12	1048.32	126.63
2012/13	1122.03	133.489
2013/14	1195.74	140.348
2014/15	1269.46	147.207
2015/16	1343.17	154.066

Source: Annul Report of Concern Bank

Appendix - 4

Figure No 4.4



The above table reveals the trend of Net profit of NABIL and MBL. Net profit both bank NABIL and MBL forecasted in increasing trend. The trend of increasing value of net profit of NABIL is higher and aggressive than MBL. The net profit of NABIL and MBL has been increasing every year by Rs.73.712 million and Rs. 6.852 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, NABIL is doing better in order to generate net profit during the projected study period in conclusion the prospect of profit generating capacity of NABIL is high than the MBL.

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.

- Generally banks have to maintain more liquid assets but the current ratios of all banks are below the standard of 1:1. The mean current ratio of NABIL is 1.89 and MBL is 1.85 the current ratio of NABIL is little higher than MBL. It is indicate better liquidity position of NABIL

- Cash and bank balance to total deposit ratio of MBL has higher than NABIL i.e. 13.23% > 5.67% which indicates that the bank has higher liquidity of MBL 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 MBL is higher than NABIL i.e. 16.51%. > 8.20%. Regarding the analysis, it can be said that MBL has a better ability to meet daily cash requirements of their customers but it should be noted that MBL has excess cash due to the low investment opportunities.
- Investment on government securities to current assets of NABIL has higher than MBL i.e. 30.95% > 8.66%. It shows NABIL has invested more fund in government securities. MBL has invested little portion in government securities. Its suggest MBL to increase investment in purchasing of government securities.
- Above findings shows that liquidity position of MBL is comparatively better than NABIL. Lower liquidity position of NABIL shows that the current assets have been utilized in some profit generating sectors, but MBL has over liquidly position.

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 MBL show the following findings.

- The loan & advances to total deposit ratio of NABIL is lower than MBL 68.11% < 82.41%. It indicates the better mobilization of deposit by MBL. So, MBL has more efficiently utilizing the outsiders' funds in extending credit for profit generating sectors.
- The total investment to total deposit of NABIL is much higher than MBL i.e. 34.40% > 11.99%. 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 MBL is greater than NABIL i.e. 70.62% > 56.59%. It refers MBL 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 MBL i.e. 18.68% > 5.88%. 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 MBL.

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

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 MBL.

- Return on loan & advances ratio of NABIL is higher than that of MBL i.e. 4.64%> 1.56%. 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% > 1.10%. 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% > 10.22% 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 lower than that of MBL i.e. 5.85% < 6.22% and also has lower variability in the ratio. It indicates that MBL has efficiently used its total assets to earn higher interest income in comparison to NABIL. NABIL seems less conscious about managing its assets in order to earn more interest ratio
- Total interest earned to total outside assets ratio of MBL is higher than the NABIL i.e. 7.70% > 6.80%. MBL seems to have more efficiency in generating total interest through well utilizations of outside assets than that of NABIL

- Total interest earned to total operating income ratio of NABIL is lower than MBL i.e. 102.93% < 164.25. It means the greater portion of total operating income is occupied by total interest for MBL. It reveals MBL has successful mobilizing their fund in interest generating assets.
- Total interest paid to total assets ratio of MBL is higher than NABIL i.e. 3.26 % > 1.76%. It shows MBL has high interest expenditure to total assets. It supports MBL 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 MBL 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 MBL is lower than NABIL i.e.0.783 < 1.58. MBL has efficient operating of credit management than that of NABIL 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 MBL is greater than that of NABIL (i.e. 12.23% > 5.67%). It signifies that MBL has sound liquid fund to make immediate payment to the depositors.
- Asset Risk Ratio shows the Asset Risk Ratio of NABIL and MBL. The analysis shows that both banks have the Asset Risk Ratio in fluctuating trend. The mean ratio of MBL is lower than that of NABIL (i.e.80.95 %< 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 MBL.

Other Ratios

From the above research study, following findings are drawn on the other ratios of the sample banks i.e. NABIL and MBL:

- Average earning per share of NABIL is much greater than that of MBL i.e. Rs. 114.4 > Rs. 13.32. NABIL is better mobilizing it resources to get more earning per share (EPS) and it seems quite successful by generating higher EPS in each year and in average too. The C.V of MBL is higher than NABIL, it indicates that there is inconsistent in earning per share.
- The dividend per share of NABIL is high than MBL i.e. 76 > 0.37. It can be concluded NABIL has adopted the policy of paying high amount in the form of cash dividends where as MBL is trying to capitalized its earnings by keeping it in the form of retained earnings. It is noted that MBL provided dividend for tax adjustment of bonus share.
- Average market price of the share of NABIL is greater than that of MBL i.e.2107 > 517.2. It indicates that shareholder of NABIL are getting higher price It shows NABIL has better financial performance than MBL in order to increase market price per share. The C.V. of MBL is little bit high it indicates that MBL has little bit inconsistent in its market price
- The mean price-earning ratio of MBL is little higher than that of NABIL i.e. 48.26 is greater than 25.59. It indicates that for getting Rs 1 as earning, one should invest Rs 25.59 in NABIL and Rs 48.26 in MBL. Looking the mean ratio we conclude that in short run, investor of MBL are getting better profitability because they are selling their shares in high price although EPS of MBL is lower in comparison than that of NABIL it s suggest to shareholder to sell their stock to get high income.

Above analysis reveals that NABIL Bank has well in other ratios than MBL, NABIL has seem better in every angle than MBL.

4.3.2 Statistical Analysis

Coefficient of Correlation

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

- Both NABIL and MBL have high positive co-relation between total deposit and loan & advances because NABIL and MBL have 0.989 and 0.993 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 MBL. Where as NABIL has little low degree of positive co-relation i.e.0.926 than MBL i.e. 0.965. MBL 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 MBL is 0.457. MBL has little low degree of positive co-relation. The relationship between Loan and advance and net profit of NABIL has significant and MBL has insignificant due to more and less than 6 P.Er.
- The degree of relationship between total investment and net profit of MBL is poor than NABIL i.e. correlation coefficient between total investment and net profit of NABIL and MBL is 0.847 and 0.535 respectively. It refers that NABIL is comparatively successful to generate net profit due to high positive correlation. The relationship between Loan and advance and net profit of NABIL has significant and MBL has insignificant due to more and less than 6 P.Er.
- Correlation coefficient of total deposit between NABIL and MBL shows high positive correlation i.e. 0.923. 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 MBL is positive correlation i.e. 0.816. 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 MBL is high because correlation coefficient between loan & advances of these two banks is 0.948. 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 MBL is positive i.e 0.451. It implies that the Net profit of both banks move in the same direction but less. The relationship between two banks is insignificant because its correlation coefficient is lower than 6 P.Er.

From the above analysis both bank has positively correlated. In some cases high and some where low but positive correlated.

Time Series Analysis (Trend Analysis)

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

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

Above analysis reveals that both the banks have well their ratio. Trend of Both bank has increasing trend. In comparison to both bank every ratio of NABIL is higher than the MBL. It indicates better performance of NABIL rather than MBL.

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATION

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 Machhapuchchhre Bank Limited. The main objective of the study is to analyze the credit risk management of NABIL and MBL Bank Limited. The specific objectives of the study are: to examine the credit risk position of the selected commercial banks in Nepal (NABIL and MBL), to analyze the credit risk management system and practices of NABIL and MBL, to compare the liquidity management, asset management efficiency, profitability position, risk position, investment practices of aforesaid Banks, to determine the impact of deposit in liquidity and its effect on lending practices and to offer suitable suggestions based on findings of this study. The significance of the study proper management of credit risk for the growth and development of this sector, by considering the return is required. In today's competitive scenario, several macro economic factors such as political, economical, social and technological factors have increased the challenges to the banking sector. The success of any organization is largely dependent on how properly the organization can manage the risk. Banking sector involves several risks, which need to be handled promptly for the survival and growth. As this research is made mainly to analyze the credit risks and their management in reference to NRB directives and measures, it will provide valuable insight to different stakeholders about the major problems of banks and bank's action for its management. The key stakeholders who will be largely facilitated by this research.

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. This chapter presents the conceptual review of credit risk management including different types of risk that exist in Bank, credit risk management system and credit risk management frame work and techniques. The Central Bank's regulations regarding the risk management has been also discussed. This chapter focuses on the review of literature relevant to understand credit and credit management of Bank. There are some books, journals, articles, other studies done related with lending and investment aspect of banks. Some of the relevant studies, literatures on lending and investment are reviewed below. This chapter is categorized in conceptual review and review of Related Studies into two different headings.

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 various ratio likes current ratio, liquidity ratio, assets management ratio, profitability ratio and risk 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 2010), 2 banks were taken as sample using judgmental sampling method. NABIL and MBL have been taken for comparative study because of their similarities in terms of business size, date of establishment, capital size etc.

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.

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 Conclusions

Thus this research is conducted with the major objective of highlighting credit risk management of two commercial banks. The observation and conclusion is derived by analyzing calculated various ratio like liquidity, asset management, profitability and risk ratio as we as relevant financial and statistical ratios of commercial banks. This has helped to reach conclusion and provide workable solution for the liquidity management and profitability of selected banks.

Generally banks have to maintain more liquid assets but the current ratios of all banks are below the standard of 2:1. The mean current ratio of NABIL is 1.89 and MBL is 1.85 the current ratio of NABIL is little higher than MBL. It is indicate better liquidity position of NABIL. Cash and bank balance to total deposit ratio of MBL has higher than NABIL i.e. 13.23% > 5.67%. Cash and bank balance to current assets ratio of MBL is higher than NABIL and Investment on government securities to current assets of NABIL has higher than MBL i.e. 30.95% > 8.66%. It shows NABIL has invested more fund in government securities

In the aspect of Asset Management Ratio The loan & advances to total deposit ratio of NABIL is lower than MBL. The total investment to total deposit of NABIL is much higher than MBL i.e. 34.40% > 11.99%. It shows the NABIL is mobilizing its funds on investment in various securities efficiently. The loan & advances to total assets ratio of MBL is greater than NABIL. Investment on government securities to total assets ratio of NABIL is higher than MBL i.e. 18.68% > 5.88%. This indicates that NABIL has invested more portions of total assets on government securities.

The major performance indicator of any firm is profit. Return on loan & advances ratio of NABIL is higher than that of MBL i.e. 4.64%> 1.56. Return on total assets ratio of NABIL is slightly higher than MBL i.e. 2.61% > 1.10. Return on equity of NABIL is higher than MBL i.e. 31.88% > 10.22% 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 lower than that of MBL. Total interest earned to total outside assets ratio of MBL is higher than the NABIL i.e. 7.70% > 6.80%. Total interest earned to total operating income ratio of NABIL is lower than MBL i.e. 102.93% < 164.25. It means the greater portion of total operating income is occupied by total interest for MBL. It reveals MBL has successful mobilizing their fund in interest generating assets. Total interest paid to total assets ratio of MBL is higher than NABIL i.e. 3.26 % > 1.76%. It shows MBL has high interest expenditure to total assets. It supports MBL to increase to interest paid to operating income**.**

From the research study, following conclusion are drawn on the credit 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 MBL is lower than NABIL i.e.0.783 < 1.58. MBL has efficient operating of credit management than that of NABIL 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 MBL is greater than that of NABIL (i.e. 12.23% > 5.67%). It signifies that MBL has sound liquid fund to make immediate payment to the depositors. Assets Risk Ratio shows the Assets Risk Ratio of NABIL and MBL. The analysis shows that both banks have the Assets Risk Ratio in fluctuating trend. The mean ratio of MBL is lower than that of NABIL (i.e.80.95 % < 85.98). The 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 MBL.

On the aspect of other ratios Average earning per share of NABIL is much greater than that of MBL i.e. Rs. 114.4 > Rs. 13.32. The dividend per share of NABIL is higher than MBL i.e. 76 > 0.37. It can be concluded NABIL has adopted the policy of paying high amount in the form of cash dividends where as MBL is trying to capitalized its earnings by keeping it in the form of retained earnings. Average market price of the share of NABIL is greater than that of MBL i.e.2107 > 517.2. It indicates that shareholder of NABIL are getting higher price It shows NABIL has better financial performance than MBL in order to increase market price per share. The C.V. of MBL is little bit high it indicates that MBL has little bit inconsistent in its market price. The mean price-earning ratio of MBL is little higher than that of NABIL i.e. 48.26 is greater than 25.59. The conclusion is that MBL seems riskier than NABIL. NABIL banks has well in other ratios than MBL, NABIL has seem better in every angle than MBL.

Coefficient of correlation Both NABIL and MBL have high positive co-relation between total deposit and loan & advances i. e. NABIL is 0.989 and MBL have 0.993. The correlation coefficient of both banks is significant. There is positive correlation between total deposit and total investment of NABIL and MBL. Correlation between Loan and advance and net profit of NABIL is 0.955 and MBL is 0.457. Correlation coefficient between total investment and net profit of NABIL and MBL is 0.847 and 0.535 respectively. The relationship between Loan and advance and net profit of NABIL has significant and MBL has insignificant. Correlation coefficient of total deposit between NABIL and MBL shows high positive correlation i.e. 0.923. Correlation coefficient is also significant. The correlation of total investment, loan and advance and net profit between NABIL and MBL is positive. It means all ratios of these two banks moves in the same direction in high. Correlation coefficient is significant due to more than 6 P.Er

Conclusion drawn from analysis of Trend Analysis NABIL and MBL have increasing trend in collecting deposit the rate of increment of total deposit for NABIL seems to be higher than that of MBL. 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 NABIL seems high growing than MBL. The total investment trend line of NABIL and MBL is upward slopping where as NABIL has aggressive upward slopping of total investment trend line. The trend line of Net profit for NABIL and MBL is upward slopping But NABIL has growing aggressively and MBL has smoothly. The position of NABIL is better in order to generate profit than MBL.

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 MBL effective and efficient. This would help to draw some outline and make reforms in the respective banks

- Generally, banks have to maintained liquid assets. The current ratio of the two banks, NABIL and MBL 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. So, it is recommended to maintain sound liquidity position to NABIL and MBL.

- 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 MBL have made some amount of fund in Government securities. But NABIL and MBL are recommended to invest more funds in Government securities instead of keeping them idle.

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

- Both the banks are recommended to formulate and implement the sound and effective investment policy to 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.

- 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 better performance of banks.

- Both banks should be careful in increasing profit of the bank to maintain the confidence of shareholders, depositors and all its customers. MBL profitability position is not better than that of NABIL. So, MBL is strongly recommended to utilize risky assets and shareholders fund to gain high amount of profit.

- NRB has given directives to commercial banks to invest their certain percentage of investment in deprive and priority sector. Both banks 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.

- 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.

Keeping all these in consideration, the MBL has less performance than that of NABIL. MBL seems lower creditworthiness than NABIL. Therefore, in the future ahead, the MBL should improve its weaknesses by adopting the innovative approach to recover there bad loans. In the light of growing competition in the banking sector both bank NABIL and MBL should be customer oriented. It should strengthen and activate its lending and recovery function as it is an effective tool to attract and retain the customers. For this purpose, it is recommended to form a strong credit recovery department in its central level, which deals with the default credit customers and take necessary action to recover there non performing loan.