

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Commercial banks are also financial intermediaries. They mediate people who save money and who want to secure the use of money by accepting the deposits, borrowing funds and advancing loans. In addition to these primary functions, commercial banks collect cheques and bills, open letter of the credit, guarantee on behalf of customers, undertake capital and exchange foreign currencies etc.

Commercial banks are organized on a joint stock company system, primarily for the purpose of earning a profit. The two essential functions of commercial banks may best be summarized as the borrowing and lending of money, they borrow money by taking all kinds of deposits. Deposit may be received on current account whereby the banker incurs the obligation of paying legal tender on demand, or on fixed deposit account whereby the banker incurs the obligation of paying legal tender after the expiry of a fixed period, or on deposit account whereby the banker undertakes to pay the customer an agreed rate of interest on it in return for the right to demand from him an agreed period notice for withdrawals. Thus the primary function of a commercial banker is that of a broker and a leader in money.

Commercial banks are in a risky business. In the process of providing financial services, they assume various kinds of risks among which credit 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 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 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 as well as determine that they hold adequate capital against these 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 management. So, in this study, the researcher has focused mainly on the credit management of the commercial banks in Nepal.

Lending is the most important functions of a commercial bank. For lending procedure, bank has to make some banking practices such as transferring property in banks name. The transfers temporarily made for a loan price and interest. Lending money is nowadays becoming main resources of revenue to the bank and also involves high risk too. Bank will not provide loan unless it has sufficient sources to the borrower that will be needed in case of future recovery.

This way bank plays important part in the development of trade, commerce and industry. Today no banker can survive for long run without proper standing of economy and economy cannot pace ahead without proper banking system built. Generally, bank refers to a commercial bank at present. Commercial bank refers that bank, which deals with accepting deposits, advancing loans and accelerating money exchanges facilities etc. The pace of time has changed the portfolio of banking business from its primary function to other functions, such as merchant banking, credit card business, documentary credit, travels cheques, home banking etc.

1.2 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.8322.2 million in Mid July 2010. 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 2009/10.

Present challenges to the banking sector are to invest the money in productive as well as new sector and to manage the accumulated nonperforming loan. The non-performing loan for entire commercial banking industry is Rs 11204.34 million in fiscal year 2009/10 which is 2.39 % of Total Gross Loan. So, the commercial banks are efficient to manage non-performing loans which are lower when compared to the prudential banking standard of 5 percent.

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).

The research work intends to explore the following question:

1. What is the trend of credit, deposit and profitability of commercial banks?
2. Do commercial banks follow Nepal Rastra Bank directives in terms of credit?
3. Whether the commercial banks apply different techniques for credit management?
4. What is the situation of the liquidity of commercial banks?
5. How the commercial banks are managing credit and non performing assets?

1.3 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:

- 1) To analyze trend of deposit utilization towards loan and advances and net profit of EBL and MBL.
- 2) To analyze the credit management system and practices of EBL and MBL.
- 3) To analyze financial position of the EBL and MBL.
- 4) To compare the liquidity management, credit management, efficiency and profitability position of EBL and MBL.
- 5) To analyze investment practices of EBL and MBL.

1.4. Focus of the Study

The study is focused on measurement and comparison of credit risks of the selected commercial banks i.e. EBL and MBL analysis of Credit risk management systems and practice followed by the Nepalese Commercial Banks by taking EBL 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 they hold.

1.5 Significance of the Study

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 management styles, NRB guidelines on credit 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 management patterns within the standards set by NRB.

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

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

1.6 Limitations of the Study

Every research has its own limitation and this research also has no exception. This study will be limited by the following factors.

1. The outcome of the study is an individual effort. Therefore management, resource mobilization limits the in-depth study of all commercial banks operating except commercial banks under study.
2. The study is based on secondary data. Therefore, the accuracy of results and conclusions highly depends on the reliability of these facts.
3. The analysis is depends upon the financial statement published and presented by the banks.
4. This study is based on five years data and the periods i.e. from 2005/06 to 2009/10.

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, research questions, 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 are attached at the end of the study.

CHAPTER TWO

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 risk 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.

2.1 Conceptual Review

2.1.1 Meaning Of Commercial Bank

Commercial banks are primarily established to perform the function of accepting deposit and providing loans to customers. Deposits accepting by commercial banks are in the form of saving, current and fixed deposits. Advancing credit in the form of short term credit to long term credit. The commercial banks pool together the saving of the community and arrange for their productive use. They supply the financial needs of modern business. They accept deposit from the public, which are repayable on demand or on short notice. They cannot afford to invest their funds in long term securities or loans. Their business is restricted to financing the short term needs of trade and industry. They provide the working capital required by trade and industry in their day to day transactions. They grant loans in the form of cash credit and overdrafts. They also render a number of subsidiary services such as collection of bills and cheques, safe keeping of the valuables of their customers, etc.

Without the development of sound commercial banking underdeveloped countries cannot hope to join the ranks of advanced countries. If industrial development requires the use of capital, the use of capital equipment will not be possible without the existence of banks to provide the necessary capital. Industrial development will be impossible without the existence of markets of the goods produced. On the other hand, the services of the commercial banks will help to extend the market. The commercial banks play an important role as follows.

- Help in business expansion
- Encouragement for the right type of industries
- Necessary for trade and industry
- Transfer of surplus funds to needy regions
- Promotion of capital formation

2.1.2 Function Of Commercial Banks

The business of commercial bank is primarily to hold deposit and make credits and investments with the object of securing profits for its shareholders. Its primary motive is profit; other consideration is secondary (Sudharsanam, 1976:123).The major functions of commercial banks are as follows.

- Accepting Deposit
- Advancing Credit
- Agency Services
- Credit Creation
- Financing of Foreign Trade
- Safekeeping of Valuable
- Making Venture Capital Credits
- Financial Advising, Security Brokerage Services.

A) Assist in Foreign Trade

The bank assist the traders engaged in foreign trade of the country. He discounts the bills of exchange drawn by exports to receive money in the home currency. Similarly, he also accepts the bills drawn by foreign exports (Vaidhya, 1999:29)

B) Offers Investment Banking and Merchant Banking Services

Banks today are following in the footsteps of leading of financial institutions all over the globe in offering investment banking and merchant banking services to corporations. These services include identifying possible merger targets, financing acquisitions of other companies, dealing in security underwriting, providing strategic marketing advice and offering hedging services to protect their customers against risk from fluctuating world currency prices and changing interest rates, (Vaidhya, 1999:29). Further, they support the overall economic development of the country by various modes of financing.

2.1.3 Concept of Credit

Credit is the amount of money lent by the creditor to borrower either on the basis of security or without security. Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances which is one of the major sources of income for banks. Bank prepares credit portfolio; otherwise it will not only effect debts but also affect profitability adversely. (Varshney, N.P. and Swaroop, 1994:6)

Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return of obligation repay on specified date on demand. Bank generally grants credit on four ways: (Chhabra, T.N. and Taneja, 1991: 4)

- Overdraft
- Cash credit
- Direct credit
- Discounting of bills

For bank's overall corporate strategy and strategic plan at least three critical components are needed. They are: (Joseph, 1998:112)

- Business plan
- Framework for risk management
- Strategies for corporate control.

These are the basic components provide a solid foundation for managing value and risk planning, it focuses in just an operating and competing in the financial services industry. The modern strategic approach also includes a framework for risk management and strategic for completing in the component fits for the modern idea of the basic business of banking as measuring, managing and accepting risk. The bank's objective is to manage value and risk by maximizing those or eliminating those that destroy value.

The main task of commercial bank is to collect funds as deposit through several sources and lend them to different sectors like; manufacturing, transportation, trade, construction, communication and other public utilities etc. Doing all these activities every bank has to face so many risks. There are several types of risk prevailed in the

banking industry, but the major area of the risk are widely recognized, i.e. credit risk, market risk and operating risk etc.

The credit risk is the potential financial loss resulting from the failure of customers to honors fully the terms of loan or contract. On the other hand, the market risk includes balance sheet risk and trading risk such as potential risk to earning and capital resulting from changes in interest rate, liquidity conditions, impact of foreign exchange rate fluctuations etc. Meanwhile operating risk arises from the natural disasters, errors in processing and settlement of transactions safeguarding of assets, system failure, fraud and forgery.

2.1.4 Types of Credit

Overdraft:

It denotes the excess amount withdraw over their deposits.

Cash Credit:

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

Term Credit:

It refers to money lent in lump sum to the borrowers. It is principal form of medium term debt financing having maturities of 1 to 8 years. Barely and Myers urge that bank credits with maturities exceeding 1 years are called term credits. The firm agrees to pay interest based on the bank's prime rate and to repay principal in the regular installments. Special patterns of principal payments over time can be negotiated to meet the firm's special needs (Richard, 1996:80).

Working Capital Credit:

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

Priority or Deprived Sector Credit:

Commercial banks are required to extend advances to the priority and deprived sector .12% of the total Credit must be towards priority sector including deprived sector. Rs.2million for agriculture cum service sector and Rs.2.5 million for single borrows are limit sanctioned to priority sector. Institutional support to ‘Agriculture Development Bank’ and ‘Rural Development Bank’ are also considered under this category, deprived sector lending includes:

- Advances to poor/downtrodden /week/ derived people u p to Rs. 30,000 for generating income or employment.
- Institutional Credit to Rural Development Bank.
- Credit to NGOs those are permitted to carryout banking transaction for lending up to Rs. 30, 000.

Hire-purchase Financing (Installment Credit)

Hire- purchase credits are characterized by periodic repayment of principal and interest over the maturity of the credit. Hirer agrees to take the goods on hire at a stated rental including their repayment of principal as well as interest with an option to purchase. A recent survey of commercial banks indicates those bank are planning to offer installment credits on a variable rate basis. It can be secured and unsecured as well as direct and indirect installment credit.

Housing Credit (Real Estate Credit)

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

Project Credit

Project Credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit. Construction credit is short- term credits made to develops for the purpose of completing proposed projects. Maturities on construction credits range from 12 months to as long as 4to5 years , depending on the size of the specific

project (Johnson,1940:242).The basic guiding principal involved in disbursement policy is to advance funds corresponding to the completion stage of the project. Hence, what percent of the credit will be disbursed at which stage of completion must be spelled in disbursement policy? Term of credit needed for project fall under it.

Consortium Credit

No single financial institution grant credit to the project due to single borrower limit or other reasons and two or more such institution may consent to grant credit facility to the project among them. Financiers bank equal (or Likely) charge on the project's assets.

Credit cards and Revolving lines of Credit

Banks are increasingly utilizing charge cards and revolving lines of credit to make unsecured consumer credit. Revolving credit line lowers the cost of making credit since operating and processing cost are reduced. Due to standardization, centralized, department processes revolving credits resulting reduction on administrative cost. Continued borrowing arrangement enhances cost advantages. Once the credit line is established, the customer can borrow and repay according to his needs and the bank can provide the fund to the customer at lower cost.

Charge cards and credit lines tied to demand deposit accounts are the two most common revolving credit agreements. It can be further divided into credit cards, automatic overdrafts lines and large credit lines.

Off- Balance Sheet Transaction

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

Bank Guarantee

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

Letter of credit (L/C)

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

2.1.5 An Overview on Credit Risk

Credit risk is defined as the possibility that a borrower will fail to meet its obligations in accordance with the agreed forms and condition. Credit risk is not restricted to lenders doing activities only but includes off balance sheet and interbank exposures. The goal of C.R.M. is to maximize the bank risk adjusted rate of return by maintaining the C.R.E. within acceptable parameters. For most banks, loan is the largest and most oblivious resources of credit. However, other sources of credit risk exist throughout the activities of banks including in the banking book and in the trading book and also in both on and off balance sheet. Banks are increasingly facing credit risk or counterpart risk in various financial instruments other than loans including acceptance, inter bank transactions, trade financing, foreign exchange transaction and guarantee and the settlement of transactions.

Credit is regard as the most income generating assets especially in commercial banks. Credit is regarded as the heart of commercial bank in the sense that, it occupies large volume of transaction. It covers the main part of investment. It is the main factor for creating profit and determining the profitability. It affects the overall economy.

In today's context, it also affect on national economy in some extent because if the bank provides credit to retailer, it will make the customer status. Similarly, it provides cash to trade and industry too. The government will get tax from them and help to increase national economy. It is also the security against depositors. It is supposed from the very beginning that Credit is the wealth maximization derivative. However, other factors can also affect profitability and wealth maximization but the most effective factor is regarded as credit risk. It is the most challenging task because it is backbone in commercial banking. Thus effective management of credit should seriously be considered. Management is the system which helps to complete the task

effectively. Credit risk management is also the system which helps to manage credit effectively, in other words, credit risk management refers the management of credit exposure arising from loans, corporate bodies, and credit derivatives. Credit exposures are the main sources of investment in commercial banks and return on such investment is supposed to be main sources of income.

2.1.6. Credit Risk Management.

Financial environment is dynamic. In this dynamic financial environment fluctuation in interest rates, exchange rates and commodity and real estate price are not something new. These fluctuations in economic and financial variables destabilize the corporate strategies and performance of bank. Thus, it is necessary that bank has a framework of risk management. Effective credit risk management allows a bank to reduce risk and potential non performing assets. Once bank understand their risk and their cost they will be able to determine their most profitable business. Therefore the bank must have an explicit credit risk strategy by organizational changes, risk measurement techniques and fresh credit processes and system. While talking about the credit risk management, five C's of creditworthiness should be considered and they are:

1) Character

The good character and intention of the borrower is very important and thus should be seriously considered. Information about the character of the client can be gathered from his working place, reference, neighbors and other places he is associated with. This job tediously but should be carried out for secure investment.

2) Capacity

It can be describe as a customer ability to pay. It is measured by applicants past performance records. For this an interview with applicants, customers\suppliers will further clarify the situation. The gross income, expenses and net income should be analyzed whether the borrower lives on salary\wages or any other forms of income sources. Whether the borrower has extra income source other than usual based which should be used to repay the scheduled installments should be considered.

3) Capital

Capital provides a caution to absorb operating and assets losses that might otherwise impair debt repayment. This, in fact, is the insurance against the loans granted to the borrowers.

4) Collateral

Sufficiency of collateral is necessary to ensure the recovery of loan. In case of default, by any cause, the collateral kept should have value enough to recover the loan granted and interest borne by it. It is recommended that only 50% of the value of collateral is granted as loan, but considering other factors like character of borrower and his credit worthiness, this percentage can be made flexible.

5) Conditions

Borrowers may be subject to unfavorable economic conditions beyond their control. Repayment depends not only upon character, capacity and collateral but those factors over which the borrower exercise little or on control. As for example: natural calamities or drastic economic crises etc.

2.1.7 Credit Risk management Framework

Fluctuations in interest rate, exchange rate, and commodity and real estate prices are not something new. However, fluctuation in economic and financial variables destabilized the corporate strategies and performance of the banks and their client customers. Thus, it is crucial to those banks have a framework for risk management and for selling risk management services to clients. Risk management can be conducted on a bank's balance sheet through adjustments in portfolio composition, or off the balance sheet by using most of risk management weapons derived from the technology of financial engineering, there off-balance sheet tools of risk management are known as derivatives contracts of activities or simply as ' derivatives.' (Joseph, 1998: 126)

The risk management framework rests on three pillars, (Froot, 1994:91-102) are summarized as follows.

- Making good investment decisions creates corporate value. For traditional banks this means making good locus and investments and tradition banks, it means this plus making good investment decision regarding their non-traditional activities e.g. Investment banking, mutual funds, insurance derivatives.
- Generating enough cash flows internally is the key to making good investments.

Companies that don't generate cash flow internally tend to cut investment more substantially than their competitors do. In banking generating enough cash flow internally plays a critical role in maintaining a firm's capital adequacy. Adequate capital in turn is a pre requisite for expansion and making good investment. With respect to cost and control, banks with inadequate capital are subject to higher deposit insurance premium greater regulatory scrutiny and possible takeover by outsiders.

- Proper and prudent look at major market indicator.

Bank should look properly at major market indicator because adverse movements in external factors such as interest rates and commodity prices can disrupt cash flow, a company ability to invest be jeopardized.

2.1.8 Factor Affecting Credit Policy

The credit policy of a firm provides the framework to determine whether or not to extend credit and loan such to extend. The credit policy decisions of banks have two broad dimensions; credit standards and credit analysis. A firm has to establish and use standards to making credit decision, develop appropriate sources of credit information and methods of credit analysis.

Credit risk management strategy or the credit policy is a tool for analyzing and managing the credit risk. Generally the following factors are to be considered to make effective credit risk management. It is also called the factors of credit policy. It helps to get effective credit worthiness.

1. Industry environment.

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

2. Financial Conditions.

It determines the borrower's capacity to repay through cash flow as the first way out. The strength of second way out i.e. through collateral liquidation is also assessed. Further the possibility to fall bank on income of sister concern in case of financial crunch of the company condition threatens repayment capacity.

3. Management quality.

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

4. Technical strength.

It determines the strength and quality of the technical support required for sustainable operation of the company in terms of man power , the viability of the technology uses, availability of after sales services, cost of maintenance and replacement need to be evaluated.

5. Security realization.

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

2.1.9 Credit Risk management Techniques

As the majority of bank assets are in the form of loan, as the lending function is simple and create the value of the bank. The main danger is the chance of the borrower not to pay the loan amount. So the proper prudent management of the credit risk is very important. Merton and Bodies have suggested three technique for the managing the credit risk in their article published in the journal of Banking and Finance. (Miller & Merton, 1995:483-489)

1. Risk based pricing.

It has been established that risk based pricing required lenders to change the rate that compensates for the riskiness of the loan. The pricing procedure needs to be straight forward and not based solely an historical loan loss experience. In practice, loan pricing tends to follow the prime rate plus basis. Because the prime rate is not the lowest rate that a bank charges the credit worthiest customers can negotiate from the prime rate. The discount prime rate is what bank use to attempt to compete with open market instruments such as commercial paper and corporate bonds.

2. Assets restriction.

Bank lenders and other creditors have a claim on the borrower's assets. As long as the market value of assets exceeds the value of liabilities, creditors are protected because proceeds from sales of assets cover the entire claim alternatively, as long as positive

net worth exists, business firms are not going to turn over the creditors assets that exceeds the value of claim against them. Thus one ways for lenders to protect themselves is to try to ensure that the value of assets always exceed than value of claims. Restriction amount of debt a borrower takes on and restricting the variability of the value of assets are the basic ways of meeting this objectives. Restricting covenants is long agreement and the strength of bank customer relationships are practical ways that lender impose assets restrictions or establish borrowers incentives for compliance.

3. Monitoring.

If lender have a contractual right to monitor assets value continuously and to seize assets, than loan losses can be minimized either by auditing assets values and seizing assets before short falls exist or by requiring the posted value of collateral assets to equal or the posted value of collateral assets to equal or exceeds the promised payment for private loan, which banks have considerable expertise in organization, monitoring without continuous surveillance is costly.

Before providing credit to customer, bank makes analysis of project from various aspects and angles. It will help the bank to see whether project is really suitable to invest or not. For that, bank needed to do a project appraisal. The purpose of project appraisal is to achieve the guarantee of reasonable return from the project. Project appraisal answers the following questions:

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

Generally, the project appraisal involves the investigation from the following aspects.
(Gautam, 2004:258)

- Financial aspect.
- Economic aspect.
- Management\Organizational aspect.
- Legal aspect.

2.1.10 Types of Risk Faced By Commercial Bank

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. 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, avoid the risk, reducing the negative effect of the risk and accepting some or all of the consequences of a particular risk.

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 risks 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 (1996) 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 (1996) "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 (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.

2.2.1 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.

Capital Adequacy should maintain on the basis of the total risk weighted assets. The logic behind the capital adequacy is to protect the interest of public deposit as well as safe guard the banks in their critical financial position.

Institution	Minimum on RWA	Capital Adequacy (%)
	Primary Capital	Total Capital fund
A,B & C class	6.0	12.0
D class	4.0	8.0

Sources: Nepal Rastra Bank

As presented in the above table A, B & C class financial institution should maintain the capital adequacy 6% in primary capital of their total risk weighted assets. They should maintain 12% in total capital of total risk weighted assets. But D class institution can maintain 4% in primary capital and 8% in total capital fund. Capital fund is divided into two categories. They are primary capital and secondary capital. Primary capital is also known as core capital or Tier – I capital and secondary capital is Tie – II. Total capital fund is the sum of primary capital and secondary capital. 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:

- 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:

- 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:

$$\text{Capital Fund} = \text{Primary Capital} + \text{Supplementary Capital}$$

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

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

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

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

2.2.2 Directive No 2 (loan classification & provisioning)

The new regulation address upon the classification of loan and advances and provisioning. Loans are classified as performing and non performing loans. Regulation provides for “overdue period of outstanding loans and advanced” as minimum criteria for classification of loans and advances. Existing grades of loans have been reduced from 6 to 4. Performing loans includes pass loans only, while non performing loans includes substandard, doubtful and bad loans.

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.
- vi) 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.

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

2.2.2.1 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 Loans	Criteria of Provisioning	Loan Loss Provision
Good	Not overdue & overdue up to 3 month	1 Percent
Substandard	Overdue by 3 to 6 months	25 percent
Doubtful	Overdue by 6 to 12 months	50 percent
Bad	Overdue by 1 yrs & above	100 percent

Sources: Nepal Rastra Bank

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.

2.2.3 Directive No 3 (Single Obligor Limit)

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

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

Loan Loss Provision for Minimizing Concentration Risk

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

Sector wise Lending

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

Security wise Lending

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

Loan Concentration on Single Sector

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

2.3 Review of Articles

Santomero (1999), has analyzed the various risk faced by commercial banks. According to Santomero, 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 Santomero, 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 principles have 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.

Rana (2003) 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 policies 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 (2005), states that NRB has instructed to the 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 (2009) 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.

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, (2010), "Understanding of credit derivative Business Age September" emphasizes Credit derivative enable financial institution and companies to transfer credit risk to a third party and thus 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 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 Previous 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:

- Increase in operational procedures of the bank, which increase the operational cost of the bank.
- A short term decreases in profitability, which result to fewer dividends to shareholders and less bonus to the employees.
- Reduction in the loan exposure of the bank, which decreases the interest income but increase the protection of the depositor's money.
- Increase protection to the money of the depositors through increased capital adequacy ratios and more stringent loan related documents.
- Increase demand from shareholder's contribution in the bank by foregoing dividends for loan loss provisions and various other reserves to increase core capital.

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

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

Shrestha (2004), 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 bank
- Whether the directives are actually implemented and are being monitored by NRB or not.

She has stated that both NBL 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 aspects 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 reductions 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 less dividends to the shareholders and less bonus to employees. Not only are the negatives sides but also their 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 ratio 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 (2005), 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 study are:

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

The major findings of this study are:

1. In terms of liquidity ratio, current ratio of NSBI is higher than that of NBBL. The ratio of liquid fund to current liability of NSBI is higher than NBBL. This shows that NBBL has less consistency than NSBI. The ratio of cash and bank balance to deposit of NSBI 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 NSBI is higher than NBBL. NSBI 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 NSBI. Likewise mean ratio of loans and advances to total deposit of NBBL is higher than NSBI. The mean ratio of investment to loans and advances and investment of NSBI is higher than that of NBBL. Likewise the ratio of total investment to total deposit of NSBI is higher than that of NBBL.
3. The ratio of credit to government enterprises to total credit of NBBL is higher than that of NSBI. The mean ratio of credit total bills paid and discount to total credit ratio of NBBL is higher than that of NSBI. NSBI 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 earnings per share (EPS) reflects the relative measure of profitability. The performance of NBBL is better than NSBI. Return on equity and earnings per share of NBBL are higher than that of NSBI in all years.
5. Co-efficient of correlation between deposit and loans & advances of both banks has 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 NSBI 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 NSBI and NBBL are found in increasing trend. The increment ratio on deposit of NSBI 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 (2006), on “A study of Non Performing Loan & Loan Loss Provision of Commercial Bank, A case study of NABIL, SCBNL 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 nonperforming 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 SCBNL 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 SCBNL has the least Loan Loss Provision.

Likewise, the NBL has the highest portion of Loss loan followed by NABIL and SCBNL. This study is more concentrated on non-performing loans; however, there exist 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 (2007), 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

Machhapuchhre Bank Ltd." how the selected commercial banks (have managed different types of risk in this competitive Nepalese banking Industry.

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 policies 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.

Sapkota, (2008), 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 EBL and HBL. 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 EBL.
- To evaluate financial and investment efficiency, profitability and liquidity position of HBL and EBL.
- To analyze the sources and uses of funds of HBL and EBL.

To achieve the objectives of the study, descriptive and 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 EBL.

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 EBL. 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 EBL. 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 EBL. But the capital fund, yearly growth rate of net profit of EBL is better in comparison to HBL. The total deposits to total investment ratio of HBL and EBL 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 EBL.

From the above analysis, it can be concluded that the liquidity position of EBL was not satisfactory whereas HBL is comparatively better than that of EBL. EBL has made enough investment in government securities than HBL. EBL 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 EBL 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 EBL. Deposits and total investment, deposits and loan and advances of HBL and EBL 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 EBL 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 EBL and there is no difference between mean ratios of total investment to their total deposits.

Singh, R. (2010) on her research "A study on the credit risk management of Nepalese Commercial Banks" aims following objective taking Bank of Kathmandu and Nepal investment 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 BOK and NIBL
- To evaluate the organizational structure of BOK and NIBL to manage the credit risk.

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

1. From the analysis of secondary 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 BOK and NIBL 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 BOK and NIBL 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 BOK and NIBL. In regard to concentration risk, BOK has more risk in manufacturing and others sector where as NIBL 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 %. BOK 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 BOK and NIBL.

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. BOK has chosen others sector and real estate business in 2nd and 3rd position respectively, where as the NIBL has just opposite preference in these sectors.
3. Likewise, BOK has ranked Character, Collateral and Capacity of borrower first, second and third criterion for granting credit where as NIBL 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 BOK and NIBL 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, NIBL 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, BOK 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 NIBL, 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

BOK, 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 are various studies conducted on investment policy, lending practice, credit policy, and 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 EBL & MBL 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 THREE

RESEARCH METHODOLOGY

3.1 Introduction

The topic of the study has been selected as “Credit Risk Management of Everest Bank Limited and Machhapuchhre 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

Research is a theory building activities. Theory is a relationship between two or more facts. The research design refers to the conceptual structure within which the research is conducted. "A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure" (Kothari; 1994: 42)

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

3.3 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 32 commercial banks shall constitute the population of the data and two banks under the study constitute the sample under the study. So among the various commercial banks in the banking industry, Here Everest Bank Limited and Machhapuchhre Bank Ltd have been selected as sample for the present study. Likewise, financial statements of five years (2005/06–2009/10) are selected as samples for the purpose of it.

Sample Bank

(A) Everest Bank Limited

(B) Machhapuchhre Bank Limited

A) Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operation in 1994, June 5 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 38 branches. Punjab National Bank (PNB) is the joint venture partner (holding 20% equity in the bank). The bank has been conferred with Bank of the year 2006, Nepal by the banker, a publication of financial times London. Nepal India chamber of commerce for its spectacular performance under finance sector bestowed the bank with the NICCI excellence award.

Recognizing the value of offering a complete range of services, we have pioneered in extending various customer friendly products such as Home Loan, EBL Flexi loan, EBL properly plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life insurance Policy and Loan for Professionals. EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind. The banks performance under all parameters has been outstanding during the fiscal year 2065-66 after providing for income tax and statutory provisions there was a disposal net profit of Rs.63.87 crores compared to Rs.45.12 crores last year an increase of 41.56%. The bank was able to increase its operating profit by 28.5%, deposit by more than 39% loan and advances by 39% during the year compared to the corresponding period last year. During the last financial year, the bank opened the six branches namely Besisahar (Lumjung), Kiritipur, Kushma (Parwat), Surket, Lagankhel, Maitidevi and Thamel in Kathmandu Valley.

At present, EBL has Thirty Eight Branches that spread out the nation. Everest Bank is first private commercial bank having largest network. Assists quality has improved by reduction of non performing asset (NPA) to 0.48% from 0.68% in the previous year. This is one of the lowest NPA among the commercial bank in Nepal. Against the paid

–up ordinary capital by shareholders of Rs 63.88crore, the shareholders funds now amount to Rs.262 crores with core capital base of Rs 198.16 crores, Convertible Preference Share Rs 20.00 crores and 7yr EBL Debenture Rs 30.00 crores. Earnings per share have surged to Rs 62.78 from Rs 54.22. The local Nepalese Promoters hold 50% stake in the Banks equity, while 20% of equity is contributed by joint venture partner PNB whereas remaining 30% is held by the public.

B. Machhapuchchhre Bank Limited

Machhapuchchhre Bank Limited started its operation in July 21, 1998 A.D. as the 14th commercial bank and the first commercial bank in the western part of Nepal. The head office of Machhapuchchhre is located in Prithvichowk, Pokhara and the corporate office is in Kathmandu. The bank has 41 branches located all over the major parts of the country. The bank also established its branch in Jomsom (Mustang). 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.1479.3 million. The bank has the deposit and loan and advances of Rs. 18533.5 million and Rs. 14934.3 million respectively in F/Y 2009/10 (Annual Report, 2009/10).

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, 2009/10).

3.4 Sources of Data

There are two sources of data collection. This 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

1. Annual Report of concerned Bank.
2. Internet.
3. NRB directives.
4. Economic survey of Government of Nepal and Ministry of finance.
5. Newspaper, journals, articles and various magazines.

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

3.6.1 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. There is a positive relation between liquidity and credit risk. Short term lender such as suppliers and creditor use liquidity analysis to assess the risk level and ability of a firm its current obligation. Satisfying these obligation requires the use of the cash resources available as of the balance sheet date and the cash to be generated through the operation cycle of the firm.

a) Current Ratio:

This ratio shows the banks 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:

$$\text{Cash \& Bank Balaannce to Total Deposit Ratio} = \frac{\text{Cash \& Bank Baalce}}{\text{Total Deposit}}$$

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;

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

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;

$$\text{Investment on Govt. Sec. to Total CAR} = \frac{\text{Investment on Govt. Securities}}{\text{Current Assets}}$$

ii) Credit Management Ratios:

Credit 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. 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;

$$\text{Loan \& Advances to Total Deposit Ratio} = \frac{\text{Loan \& Advances}}{\text{Total Deposit}}$$

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:

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

c) 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;

$$\text{Investment on Govt. Sec. to Total Assets Ratio} = \frac{\text{Investment on Govt. Sec.}}{\text{Total Assets}}$$

d) 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;

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

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) 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;

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

b) 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;

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

c) 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;

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

d) 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.

e) 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.

f) 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;

$$\text{Loan Loss Provision to Total Loans and Adv. Ratio} = \frac{\text{Total Loan Loss Provision}}{\text{Loan and Advances}}$$

g) 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;

$$\text{Non Performing Loans to TL \& Adv. Ratio} = \frac{\text{Total Non Performing Loans}}{\text{Total Loan and Advances}}$$

iv) Risk Ratio

Risk and uncertainty is a part of business loss. All the business activities are influenced by risk, so business organization cannot 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 EBL and MBL.

a) Credit Risk Ratio or 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 non-performing assets in total Loan & Advances. Higher ratio indicates more risky assets in the volume of Loan & Advances of the bank and vice-versa.

$$\text{Credit Risk Ratio} = \frac{\text{Total Non Performing Loan}}{\text{Total Loans}}$$

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:

$$\text{Liquidity Risk Ratio} = \frac{\text{Cash and bank balance}}{\text{Total deposit}}$$

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:

$$\text{Assets Risk Ratio} = \frac{\text{Total investment loan \& advances}}{\text{Total assets}}$$

v) Market Values Ratios

a) Earnings 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. The ratio is calculated as:

$$\text{Dividend Per Share} = \frac{\text{Total Dividend}}{\text{No. of Share Outstanding}}$$

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. The ratio is computed by:

$$\text{Market Price per Share} = \text{Price Earnings Ratio} \times \text{Earning Per Share}$$

d) Price Earnings Ratio

This ratio is closely related to the earning per share. It is calculated by dividing the market value per share by EPS. Price earnings 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 as accepted by investors. Price earnings 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. The ratio is compute by:

$$\text{Price Earnings Ratio} = \frac{\text{Market Value Per Share}}{\text{Earning Per Share}}$$

3.6.2 Statistical Tools

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

a) 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 observation

N = number of observation

b) Standard Deviation (SD):

The measurement of the scattered of the mass figures in a series about an average is known as dispersion. Amongst all the methods of finding out dispersion, standard deviation is regarded as the best. The standard deviation measures the absolute dispersion. The greater the value of dispersion means greater the value of SD. A small value of standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series. SD is also known as "Root Mean-Square Deviation". Because it is the square root of the arithmetic mean of the squares of the deviation. In this study standard deviation of different ratios are calculated.

$$\text{Standard Deviation (} \sigma \text{)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$$

c) 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.

$$r_{x_1x_2} = \frac{N \sum X_1 X_2 - (\sum X_1)(\sum X_2)}{\sqrt{[N \sum X_1^2 - (\sum X_1)^2][N \sum X_2^2 - (\sum X_2)^2]}}$$

Where,

r_{X1X2} = Correlation between X1 and X2

N $\sum X1X2$ = No. of Product observation and Sum of product X1 and X2

$\sum X1$ $\sum X2$ = Sum of Product X1 and sum of Product X2

d) Coefficient of Variation (CV):

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

$$CV = \frac{\dagger}{x} \times 100$$

Where,

\dagger = Standard deviation

x = sum of the observation

e) 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:

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

Where,

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.

f) 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.

$$Y = r + bx$$

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 FOUR

PRESENTATION AND ANALYSIS OF 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 Everest Bank Limited and Machhapuchhre 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 financial ratios related to the investment management and fund mobilization are presented to evaluate and analyze the performance of commercial Banks i.e. EBL and MBL. Some important financial ratios 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 positing 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							
	2005/06	2006/07	2007/08	2008/09	2009/010	Mean	S.D.	C.V.
EBL	2.08	2.08	1.83	1.34	1.21	1.71	0.41	0.241
MBL	1.68	1.43	1.59	2.80	2.24	1.95	0.57	0.290

Source: Annual Report of Concern Bank

Above table shows the current ratio of selected commercial banks during the study period. The current ratio of EBL 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. For the first two years EBL meets the standard ratio and for the last two years MBL meets the standard ratio. In an average, liquidity position of MBL is greater than EBL i.e. $1.95 > 1.71$ due to high mean ratio. So, MBL is sound in meeting short-term obligation than EBL. Likewise, S. D. and C.V. of EBL is less than MBL i.e. $0.41 < 0.57$ and $0.241 < 0.290$. It can be said that C.R. of EBL 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 2:1.

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 EBL and MBL during the study period.

Table No. 4.2
Cash & Bank Balance to Total Deposit Ratio (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	3.83	3.26	5.99	8.37	9.03	6.10	2.60	0.426
MBL	13.09	10.31	13.55	14.31	17.74	13.80	2.67	0.194

Source: Annual Report of Concern Bank

The above Table No. 4.2 reveals that the Cash and Bank Balance to Total Deposit Ratio of EBL and MBL are in fluctuating trend. The highest ratio of EBL is 9.03 in FY 2009/10 and lowest is 3.26 in FY 2006/07. Similarly, the highest ratio of MBL is 17.74 in FY 2009/10 and lowers in 10.31 in 2006/07.

The mean ratio of EBL and MBL are 6.10 and 13.08 respectively. MBL has higher ratio than the EBL, which shows its greater ability to pay depositors money as they want. Similarly, the coefficient of variation of EBL is 0.426 times and MBL is 0.194 times. S.D. of MBL is lower than the EBL. C.V. of EBL is higher than C.V. of MBL, so EBL is more inconsistent than MBL.

The above analysis has to conclude that the cash and bank balance position of MBL with respect to EBL 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 EBL and MBL during the study period.

Table No. 4.3
Cash & Bank Balance to Current Asset Ratio (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	6.33	4.55	8.25	13.27	19.45	10.37	6.03	0.582
MBL	18.86	14.98	15.78	17.21	21.70	17.71	2.68	0.151

Source: Annual Report of Concern Bank

The above table reveals that cash and bank balance to current assets ratio of EBL and MBL are in fluctuating trend. The mean ratio of EBL and MBL is 10.37 and 17.71 respectively. The higher mean ratio shows MBL's liquidity position is better than that of EBL. Moreover the S.D. and C.V. of EBL are higher than MBL. The higher C.V. of EBL 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 (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	34.91	16.60	28.36	23.09	21.38	24.87	7.01	0.282
MBL	3.28	16.65	11.69	8.96	3.75	8.87	5.61	0.633

Source: Annual Report of Concern Bank

The table 4.4 shows investment on government securities to current assets ratio of EBL and MBL. Both Banks has fluctuating type ratios. The table shows the highest ratio of EBL is 34.91 in FY 2005/06 and lowest is 16.60 in FY 2006/07. In the same way, the highest ratio of MBL is 16.65 in FY 2006/07 and lowest is 3.28 in FY 2005/06. The mean ratio of EBL is 24.87 percent, which is higher than the mean ratio of MBL 8.87 percent. It means EBL has invested more money in risk free assets than that of MBL. In another words MBL has emphasizes 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 7.01 and 5.61 and C.V is 0.282 and 0.633 of EBL and MBL respectively. The higher C.V. of MBL shows the more inconsistency in the ratios with compare to EBL.

4.1.1.2 Credit Management Ratio

A commercial bank must be able to manage its credit very well to earn high profit, so to satisfy its customers and for own existence. Credit management ratio measures how efficiently the bank manages the resources at its commands. Through following ratios, credit 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 (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	75.05	68.64	68.13	68.18	74.97	70.99	3.67	0.052
MBL	90.60	77.87	75.25	77.84	80.25	80.36	5.99	0.075

Source: Annual Report of Concern Bank

The above table shows that the loan & advances to total deposit ratio of EBL and MBL is fluctuating trends. MBL has higher ratio than that of NEBL in each year and mean too. It indicates the better mobilization of deposit by MBL. The mean of EBL and MBL are 70.99% and 80.36% respectively. So MBL has higher ratio than that of EBL. 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 EBL has not met the NRB requirement or it has not utilized its deposit to provide loan properly.

The S.D. and C.V of EBL is 3.67, 0.052 similarly MBL has 5.99, 0.075.

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 EBL and MBL are calculated and presentation below.

Table No. 4.6
Total Investment to Total Deposit Ratio (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	29.25	31.94	38.32	31.14	28.99	31.93	3.78	0.119
MBL	8.39	15.09	13.49	13.00	7.99	11.59	3.20	0.276

Source: Annual Report of Concern Bank

The above table shows that total investment to total deposit ratio of EBL and MBL. Both banks have fluctuating trend total investment to total deposit ratio. Higher ratio of EBL is 38.32% percent in FY 2007/08 and lowest ratio is 28.99 percent in FY 2009/10 in the same way the highest ratio of MBL 15.09% percent in FY 2006/07 and lowest ratio is 7.99% in FY 2009/10. Investment volume of MBL is lower than that of EBL because more funds of MBL were used in profitable loans to achieve optimum mix of interest earning assets.

The mean of the ratio of EBL and MBL are 31.93% and 11.59% respectively, so EBL has higher ratio. It signifies EBL 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 EBL is 3.78 and 0.119 and MBL has 3.20 and 0.276 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 EBL and MBL as follows.

Table No. 4.7
Loan & Advances to Total Assets Ratio (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	61.60	57.87	57.04	57.54	62.89	59.39	2.66	0.045
MBL	78.13	67.77	65.97	69.15	71.56	70.52	4.72	0.067

Source: Annual Report of Concern Bank

The above table shows the loan & advances to total assets ratio of EBL 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 EBL.

The mean of EBL and MBL are 59.39% and 70.52% respectively. So MBL has higher ratio than that of EBL. 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 MBL states that it has less uniformity in these ratios throughout the study period than that of EBL. S.D. and C.V. of EBL and MBL have 2.66, 4.72 and 0.045 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 (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	17.91	10.31	17.64	12.51	8.44	13.36	4.28	0.320
MBL	1.97	9.97	8.80	6.62	2.73	6.02	3.57	0.593

Source: Annual Report of Concern Bank

Above table shows that the investment on government treasury bills to Total assets of EBL and MBL are in fluctuating trend. The highest ratio of EBL is 17.91% in 2004/05 and MBL is 9.97% in 2005/06. And the lowest ratio of EBL and MBL are 8.44% in 2009/10 and 1.97% in 2005/06 respectively.

From the table we notice that mean ratio of EBL and MBL are 13.36% and 6.02% respectively. EBL has higher ratio in every year and mean too. It means EBL 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 EBL 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 (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	4.91	4.92	4.34	3.49	3.74	4.28	0.66	0.153
MBL	1.68	2.18	1.08	0.98	0.98	1.38	0.53	0.387

Source: Annual Report of Concern Bank

Above table shows that return on loan and advances ratio of EBL is in decreasing trend except in 2009/10 and MBL is also in decreasing trend except in 2006/07. The highest ratio of EBL is 4.92% in the year 2006/07 and lowest ratio 3.49% in year 2008/09. The mean ratio is 4.28%. Whereas highest ratio of MBL is 2.18% in year 2006/07 and lowest ratio is 0.98% in 2008/09 and 2009/10. The mean ratio is 1.38%. EBL bank shows the good earning capacity in loan and advances whereas MBL show poor earning capacity in form of loan and advances. The C.V. of MBL is higher than EBL, so MBL is more inconsistent in the ratio.

From the table we notice that EBL has higher Ratios in all year and mean too. It can be concluded that EBL 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 (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	3.02	2.84	2.47	2.01	2.50	2.57	0.39	0.151
MBL	1.30	1.48	0.71	0.68	0.70	0.97	0.39	0.395

Source: Annual Report of Concern Bank

Above table shows the Return on Total Assets of EBL and MBL. Both banks have fluctuating trend of return on its total assets. However, EBL seems successful in managing and utilizing the available assets in order to generate revenue since its ROA ratio is 2.57% of total assets in an average which is higher than that of MBL (i.e. $2.57\% > 0.97$). EBL has also higher ratio in each years. Whereas S.D. and C.V. of EBL and MBL are 0.39, 0.151 and 0.39 and 0.395 respectively. Higher C.V of MBL shows that it has relatively high inconsistencies 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 thereby, maximizing return on its equity capital. Return on equity plays the measuring role of profitability of bank. It reflects the extent 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 EBL and MBL during the study period.

Table No. 4.11
Return on Equity Ratio (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	31.34	33.91	32.79	30.60	42.30	34.19	4.71	0.138
MBL	8.42	13.31	14.39	7.68	7.31	10.22	3.36	0.328

Source: Annual Report of Concern Bank

The above listed table shows Return on Equity Ratio of EBL and MBL. Above calculated statistic indicate that EBL has fluctuating trend and MBL have increasing

return on equity ratio in 1st three years and decreasing trend in last two years. EBL has higher ratios in each year and it has also higher mean ratio (i.e.34.19%>10.22%). Despite stiff competition and an adverse macroeconomic environment, EBL is currently generating higher ROE in comparison with MBL. In brief, it signifies that the shareholders of EBL are getting higher return but in case of MBL, they are getting lesser. It can be concluded that EBL has better utilized the equity for the profit generation. It proves to be a good strength of EBL in attracting future investment also while MBL shows its weakness regarding efficient utilization of its owner's equity in comparison with EBL. EBL has homogeneous return in each year. It is the strength point of EBL. MBL has relatively more inconsistency throughout the study period because its 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 EBL and MBL

Table No. 4.12
Total Interest Earned to Total Assets Ratio (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	6.22	5.87	5.83	5.33	6.38	5.93	0.41	0.069
MBL	5.90	6.21	6.43	6.37	5.95	6.17	0.24	0.039

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 EBL, it seems less conscious about managing its assets in order to earn more interest ratio. EBL shows the decreasing trend of the interest earned ratio except in year 2009/10 and its average ratio is 5.93% whereas MBL shows fluctuating trend and it has maintained average ratio 6.17%. MBL has higher ratio in each year except in year 2005/06 and 2009/10. The mean ratio of MBL is more than that of EBL. In comparison, MBL seems effective in earning interest to some extent than that of EBL. Moreover, EBL also has higher

inconsistencies 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 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 EBL and MBL.

Table No. 4.13

Interest Paid to Total Assets Ratio (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/08	2009/10	Mean	S.D.	C.V.
EBL	1.42	1.60	2.04	2.04	2.63	1.95	0.47	0.241
MBL	2.89	3.18	3.68	3.26	3.32	3.27	0.28	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. EBL has average ratio of 1.95% whereas MBL has maintained average ratio 3.27%. The mean ratio of MBL is more than that of EBL and MBL has also higher ratio in each year. In comparison, MBL seems ineffective in getting cheaper fund. The C. V. of EBL is greater than the MBL it indicate high risk and insignificant of EBL rather than MBL.

F) Loan Loss Provision to Total Loan and Advance Ratio

Loan loss provision to total loan and advances describes the quality of assets that a bank holding. The amount of loan loss provision in balance sheet refers to general loan loss provision. The provision for loan loss reflects the increasing probability of non-performing loan. The provision of loan means the profit of the banks will come down by such amount. Increase in loan loss provisions decreases in profit result to decrease in dividends but its positive impact is that strength financial conditions of the banks by controlling the credit risk and reduced the risks related to deposits. Therefore, it can be said that banks suffer it only for short-term loan while the good financial conditions and safely of loans will make bank’s prosperity resulting increasing profit for long term.

Table No. 4.14

Loan Loss Provision to Total Loan and Advance Ratio (%)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	4.01	3.52	2.98	2.40	2.13	3.008	0.69	0.23
MBL	1.33	1.28	3.15	2.97	3.99	2.54	1.15	0.45

Source: Annual Report of Concern Bank

Above table shows the loan loss provision to total loan and advance of selected banks over the study period. Ratio of EBL range is highest 4.01 in fiscal year 2005/06 and lowest 2.13 in the year 2009/10. Average ratio of EBL is 3.008, ratio in fiscal year 2007/08, 2008/09 and 2009/10 are below the average and ration in fiscal year 2005/06 and 2006/07 are above the average. Ratio of MBL range highest is 3.99 in fiscal year 2009/10 and lowest 1.28 in the year 2006/07 and average loan loss provision to loan and advance ratio of MBL is 2.54. Here , average loan loss provision to total loan and advance of EBL is higher than MBL. Higher ratio indicates the increase volume of non-performing loan and vice-versa. Loan loss provision of EBL is in decreasing trend, so the decreasing loan loss provision ratio indicates efficient credit policy and gradual increment of the company. Here, loan loss provision to total loan and advance of MBL is increased in year 2007/08 and 2009/10 which indicates increase volume of nonperforming loan of MBL. We can say this is due to the ineffective credit policy and poor performance of the company.

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 cannot 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 EBL 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 non-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. 4.15
Non performing Loan to Total Loan Ratio (in %)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	1.32	1.38	1.12	0.74	0.80	1.07	0.29	0.273
MBL	0.39	0.28	1.16	1.08	2.33	1.05	0.82	0.781

Source: Annual Report of Concern Bank

Above table shows that NPL to total loan and advances of both banks is in fluctuating trend. Decreasing trend is the good sign of the efficient credit management. EBL seems effective in latest two years and MBL seems effective in beginning two years. From mean point of view, non-performing loan to total loan and advances ratio of EBL and MBL are 1.07 % and 1.05% respectively during the study period. The CV of MBL is higher than that of EBL (0.781 0.273), so MBL is more inconsistent in the ratios. 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 EBL from the mean point of view. However if we see ratios in latest years EBL 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:

Table No: 4.16
Liquidity Risk Ratio (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	3.83	3.26	5.99	8.37	9.03	6.10	2.60	0.426
MBL	8.27	5.18	8.29	13.55	14.31	9.92	3.88	0.391

Source: Annual Report of Concern Bank

The above Table No. 4.17 reveals that the Cash and Bank Balance to Total Deposit Ratio of EBL and MBL are in fluctuating trend. The highest ratio of EBL is 9.03 in FY 2009/10 and lowest is 3.26 in FY 2006/07. Similarly the highest ratio of MBL is 14.31 in FY 2009/10 and lowers in 5.18 in 2006/07. The mean ratio of EBL and MBL are 6.10 and 9.92 respectively. MBL has higher ratio than the EBL 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. 4.17
Assets Risk Ratio (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009\10	Mean	S.D.	C.V.
EBL	86.43	85.54	89.86	84.31	87.57	86.74	2.11	0.024
MBL	85.35	80.90	77.80	80.70	78.68	80.69	2.92	0.036

Source: Annual Report of Concern Bank

The above table shows the Asset risk ratio of EBL and MBL. The analysis shows that EBL and MBL have the credit risk ratio in fluctuating trend. EBL has highest and lowest ratio of 89.86 and same 84.31 in the year 2007/08 and 2008/09 respectively. Similarly MBL has the highest and lowest ratio of 85.35 and 77.80 in the year 2005/06 and 2007/08 respectively. The mean ratio of MBL is lower than that of EBL (i.e.80.69 < 86.74). The S.D. and C.V. both are higher of MBL i.e. 2.92 > 2.11 and 0.036 > 0.024 than the EBL.

4.1.1.5 Market Value 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. 4.18
Earning Per Share (Rupees)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	105	129	137	108	107	117.20	14.74	0.126
MBL	15.43	18.74	9.02	10.35	8.33	12.37	4.52	0.365

Source: Annual Report of Concern Bank

Above table shows that earning price per share of EBL and MBL. EBL has increasing trend of EPS in first three years and decreasing then after and MBL has fluctuating trend of EPS. While observing their ratios in overall; EB 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 EBL has been able to maximizing shareholder wealth from the view pointy of EPS. The C.V of MBL is higher than EBL, it indicates that there is inconsistent in earning per share of MBL than that of EBL.

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. 4.19
Dividend per Share (Rupees)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	70	85	100	60	35	70	24.75	0.354
MBL	0	0.79	0	0.52	0	0.26	0.37	1.417

Source: Annual Report of Concern Bank

The above statistics shows the dividend per share of EBL is higher than that of MBL in each year and EBL has also higher mean (i.e. $70 > 0.26$), it has less variability in dividends during the study period. It can be concluded EBL 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. 4.20
Market Price per Share (Rupees)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	1505	2240	2050	5275	4889	3193.80	1754.22	0.549
MBL	256	320	620	1285	420	580.20	417.37	0.719

Source: Annual Report of Concern Bank

This table shows market price of the share of EBL 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 EBL is greater than that of MBL (i.e. $3193.80 > 580.20$). It indicates that shareholder of EBL are getting higher price. The C.V. of MBL is high it indicates that MBL has 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. 4.21
Price Earning Ratio (in times)

Name of Banks	Fiscal Year							
	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	S.D.	C.V.
EBL	14.27	17.34	36.84	48.70	45.89	32.61	15.99	0.490
MBL	16.59	17.08	68.74	124.19	50.41	55.40	44.47	0.803

Source: Annual Report of Concern Bank

Above table shows that price-earning ratio earning of EBL and MBL are in increasing trend except in 2009/10. From the mean point of view, mean ratio of the EBL and MBL are 32.61 and 55.40 times respectively. It indicates that for getting Rs 1 as

earning, one should invest Rs 32.61 in EBL and Rs 50.41 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 EBL. But from the long term view and sustainable fair price, investor of EBL 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 EBL, it indicate its risk to invest in MBL rather than in the EBL.

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 EBL and

MBL using Karl Persons coefficient of correlation, value of coefficient of determination (r^2), probable error (P.E.) and (6 P.E.) are also calculated and value of them are analyzed.

A) Correlation Coefficient between Deposit & Loan & Advances

Deposit have played very 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. 4.22
Correlation between Deposit and Loan & Advances

Name of Banks	Evaluation Criteria			
	r	r ²	P.E.	6 P.E.
EBL	0.989	0.978	0.00662	0.0397
MBL	0.993	0.986	0.00422	0.0253

From the above table, it is found that coefficient of correlation between deposits and loan & advances of EBL 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 EBL and MBL move together very closely. Moreover, the coefficient of determination of EBL 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.E. In other words, there is significant relationship between deposits and loan & advances.

B) Coefficient of Correlation between Loans and Non Performing Loans

The coefficient of correlation between loan and non-performing loans measure the degree of relationship. Effective non-performing loans directly affect the volume of the loan. It is regarded as the most important indicator. IT helps to increase the risky in loans management whereas weak level of non-performing loans is signal of the better performance of the loans management. Thus it is logical to review the valuation of non-performing loans and loans management. In correlation analysis, loans is independent variable (X) and non-performing loans is dependent variable (Y). The following Table No. 4.24 shows the coefficient correlation between loans and non-performing loans i.e. r, P. E., 6 P.E. and coefficient of determination (r²) of EBL and MBL during the study period.

Table No. 4.23**Correlation between Loans and Non Performing Loans**

Name of Banks	Evaluation Criteria			
	r	r ²	P.E.	6 P.E.
EBL	-0.735	0.54	0.139	0.832
MBL	0.894	0.799	0.060	0.364

The table 4.24 presents the correlation between loans and non-performing loans during the study period. The calculated person's correlation coefficient was found - 0.735, which shows negative correlation. It indicates that loans and non-performance loans were negatively related with each other. That means, decrease on performance in loans management. Coefficient of determination was found 0.54 which indicates that 54% of the degree of relationship. Obviously, the correlation is insignificant at all due to coefficient of correlation is lower than 6P.E. on the other hand MBL has positive correlation between loans and non-performing loans i.e. 0.894. The coefficient of determination of MBL is 0.799. It means 79.9% of the degree of relationship. This relationship is significant as its correlation coefficient is higher than 6P.E.

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 EBL 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, r², P.E. and 6 P. E. between those variables of EBL and MBL for the study period.

Table No. 4.24**Correlation between Loan and advance and Net profit**

Name of Banks	Evaluation Criteria			
	r	r ²	P.E.	6 P.E.
EBL	0.955	0.912	0.0265	0.1589
MBL	0.457	0.209	0.2382	1.4291

Above table shows correlation coefficient between, Loan and advance and net profit is 0.955 of EBL. 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.E. IT indicates that loans and advances and net profit were found highly related with each other. That means, increasing loans and advance helps to increase the net profit whereas decrease in loans and advance decrease in net profit. Likewise MBL also low degree positive correlations i.e. 0.457 between loans 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 6 P.E. shows that the relationship between Loan and advance and net profit is insignificant for MBL. In conclusion, EBL 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.E. during the fiscal year 2005/06 to 2009/010.

Table No. 4.25
Correlation between Total Investment and Net Profit

Name of Banks	Evaluation Criteria			
	r	r²	P.E.	6 P.E.
EBL	0.847	0.717	0.085	0.511
MBL	0.535	0.286	0.21	1.29

Above table shows correlation coefficient between total investment and net profit of EBL is 0.847 which implies there is positive correlation between total investment and net profit. In addition, coefficient of determination of EBL 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 6 P.E. 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.E. i.e. 0.097. EBL 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 EBL. This correlation coefficient indicates that the MBL has poor performed in order to generate net profit through investment.

E) Coefficient of correlation of Non-Performing Loans between EBL and MBL

Coefficient of correlation of non-performing loans between EBL and MBL has been given below.

Table No. 4.26
Correlation between Non Performing Loans of EBL and MBL

Evaluation Criteria			
r	r ²	P.E.	6 P.E.
-0.493	0.243	0.228	1.37

The above table shows that there is negative correlation between non performing loans of EBL and MBL.i.e. -0.493. In addition, coefficient of determination of EBL and MBL is 0.243 and 6P.E. is 1.37. Here, $r < 6P.E.$ therefore correlation coefficient is insignificant. Coefficient of determination 0.243 shows the only 24.3% of the degree of relationship.

F) Coefficient of Correlation of Loan Loss Provision of EBL and MBL

The coefficient of correlation of loan loss provision between selected commercial banks is shown as follow:

Table No. 4.27
Correlation between Loan loss provision of EBL and MBL

Evaluation Criteria			
r	r ²	P.E.	6 P.E.
0.959	0.919	0.024	0.147

The above table shows that there is high positive correlation between EBL and MBL in case of loan loss provision. It implies that the loan loss provision of EBL and MBL

move in the same direction. Here $r > 6$ P.E. Therefore, correlation coefficient is significant. This can be said that both EBL and MBL increase its loan loss provision as same direction. The coefficient of determination is 0.919, which shows the only 91.9 percent of the degree of relationship.

G) Coefficient of Correlation of Loan & Advances between EBL and MBL

The coefficient of correlation of loan & advances between EBL and MBL has been given below.

Table No. 4.28
Correlation between Loan & Advances of EBL and MBL

Evaluation Criteria			
r	r ²	P.E.	6 P.E.
0.948	0.899	0.0305	0.1830

Above table shows that there is high degree positive correlation between the loan & advances of EBL 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.E. 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 EBL and MBL

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

Table No. 4.29
Correlation between Net Profit of EBL and MBL

Evaluation Criteria			
r	r ²	P.E.	6 P.E.
0.451	0.2034	0.2399	1.44

Above statistics shows that there is high degree positive correlation between profits of EBL and MBL, which is indicated by correlation coefficient of 0.451, this relationship is insignificant because its correlation coefficient is greater than 6 P.E. 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 Everest Bank Limited and Machhapuchchhre Bank Limited for further eight year.

$$Y = a + bx$$

Where as

$$Y_c = 20662 + 4434.70 X \text{ of EBL}$$

$$Y_c = 7362.49 + 2058.39 X \text{ of MBL}$$

Table No. 4.30

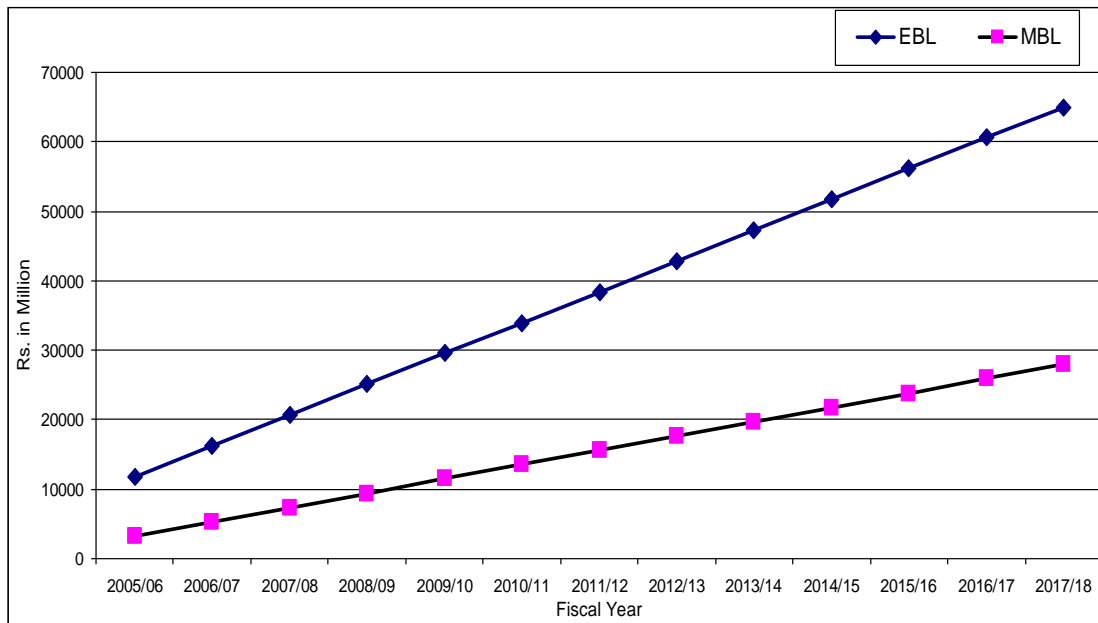
Trend analysis of Total Deposit of EBL and MBL

Year(x)	EBL	MBL
2005/06	11792.6	3245.71
2006/07	16227.3	5304.1
2007/08	20662	7362.49
2008/09	25096.7	9420.88
2009/010	29531.4	11479.3
2010/11	33966.1	13537.7
2011/12	38400.8	15596
2012/13	42835.5	17654.4
2013/14	47270.2	19712.8
2014/15	51704.9	21771.2
2015/16	56139.6	23829.6
2016/17	60574.3	25888
2017/18	65009	27946.4

Source: Annul Report of Concern Bank & Appendix I

Figure No 4.1

Trend Line of Total Deposit between EBL and MBL



Source: Table No. 4.30

Above table and figure shows that total deposit of EBL and MBL. Both Banks is in increasing trend. The rate of increment of total deposit for EBL seems to be higher than that of MBL. The increasing trend of total deposit of EBL is more aggressive and high rather than MBL. It indicates EBL has more prospect of collecting Total deposit. The trend analysis has projected deposit amount in fiscal year FY 2010/11 to FY 2017/18. From the above trend analysis it is clear that EBL has higher position in collecting deposit than MBL.

B) Trend Analysis of Loan & advances

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

$$Y = a + bx$$

Where as

$$Y_c = 13721.91 + 3130.97 X \text{ of EBL}$$

$$Y_c = 5894.676 + 1436.69 X \text{ of MBL}$$

Table No. 4.31

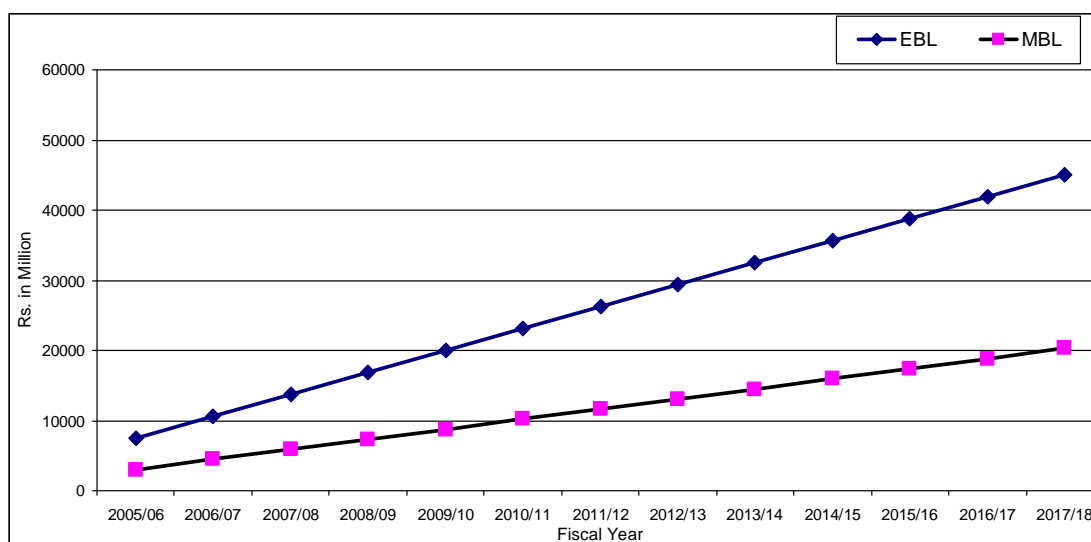
Trend line of Total Loan and Advance of EBL and MBL

Year(x)	EBL	MBL
2005/06	7459.96	3021.3
2006/07	10590.9	4457.99
2007/08	13721.9	5894.68
2008/09	16852.9	7331.36
2009/10	19983.9	8768.05
2010/11	23114.8	10204.7
2011/12	26245.8	11641.4
2012/13	29376.8	13078.1
2013/14	32507.7	14514.8
2014/15	35638.7	15951.5
2015/16	38769.7	17388.2
2016/17	41900.7	18824.9
2017/18	45031.6	20261.6

Source: Annual Report of Concern Bank & Appendix II

Figure No 4.2

Trend Line of Total Loan and Advance of EBL and MBL



Source: Table No. 4.31

Above table depicts that loan & advances of EBL and MBL. Both Banks has in increasing trend. The increasing trend of EBL is higher than MBL. The actual value of loan & advances for MBL is quite fluctuating in relation to EBL. The trend

projected for further eight year FY 2009/10 to FY 2017/18. From the above analysis, it is clear that both EBL and MBL is mobilizing its collected deposits and other funds in the form of loan & advances. Above table and figure shows the EBL has highly mobilizing loan & advances than the MBL.

C) Trend Analysis of Non Performing Loans

Here, the trend values of Non-performing loans between EBL and MBL have been calculated for further Eight year. The following Table shows the actual and trend values of EBL and MBL.

$$Y = a + bx$$

Where as

$$Y_c = 104.906 - 16.67 X \text{ of EBL}$$

$$Y_c = 160.82 + 75.64X \text{ of MBL}$$

Table No. 4.32

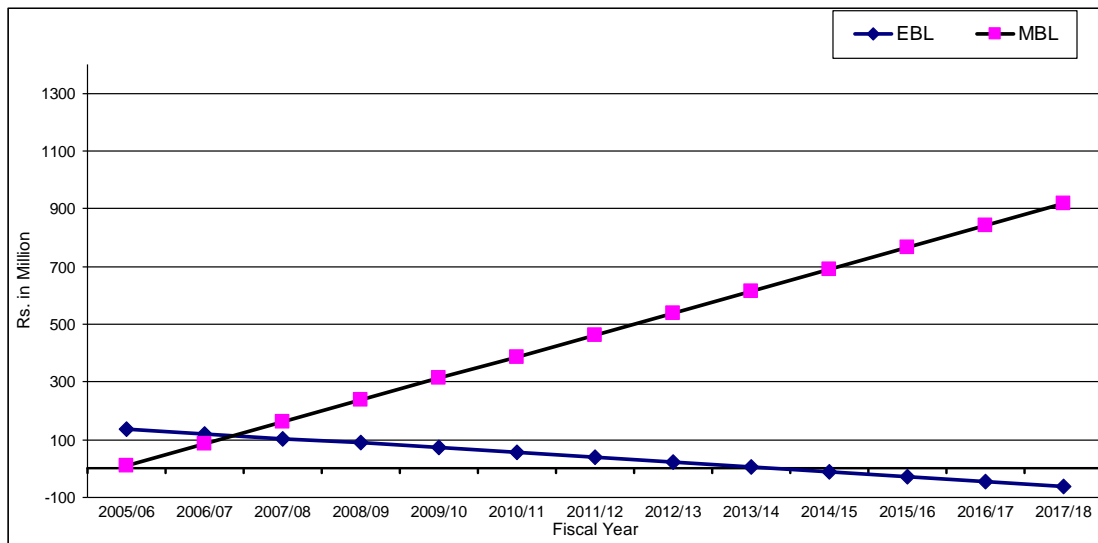
Trend Line of Non Performing Loans between EBL and MBL

Year(x)	EBL	MBL
2005/06	138.25	-32.85
2006/07	121.58	39.34
2007/08	104.91	111.54
2008/09	88.24	183.73
2009/10	71.57	255.93
2010/11	54.90	328.13
2011/12	38.23	400.32
2012/13	21.56	472.52
2013/14	4.89	544.71
2014/15	-11.78	616.91
2015/16	-28.45	689.11
2016/17	-45.12	761.30
2017/18	-61.79	833.50

Source: Annual Report of Concern Bank & Appendix III

Figure No 4.3

Trend Line of Non performance Loans between EBL and MBL



Source: Table No. 4.32

Above table shows the trend of non-performing loans of EBL and MBL. Both banks are in fluctuating trend. The trend analysis has projected non-performing loans amount in fiscal year 2010/11 to 2017/18. Both bank EBL & MBL is lower increasing trend. Therefore, credit management is in moderate position.

D) Trend Analysis of Net Profit

Here, the trend values of net profit of EBL and MBL have been calculated for five years FY 2005/06 to FY 2009/2010 and forecasting for the next eight year till FY 2017/18.

$$Y = a + bx$$

Where as

$$Y_c = 606.048 + 73.712 X \text{ EBL}$$

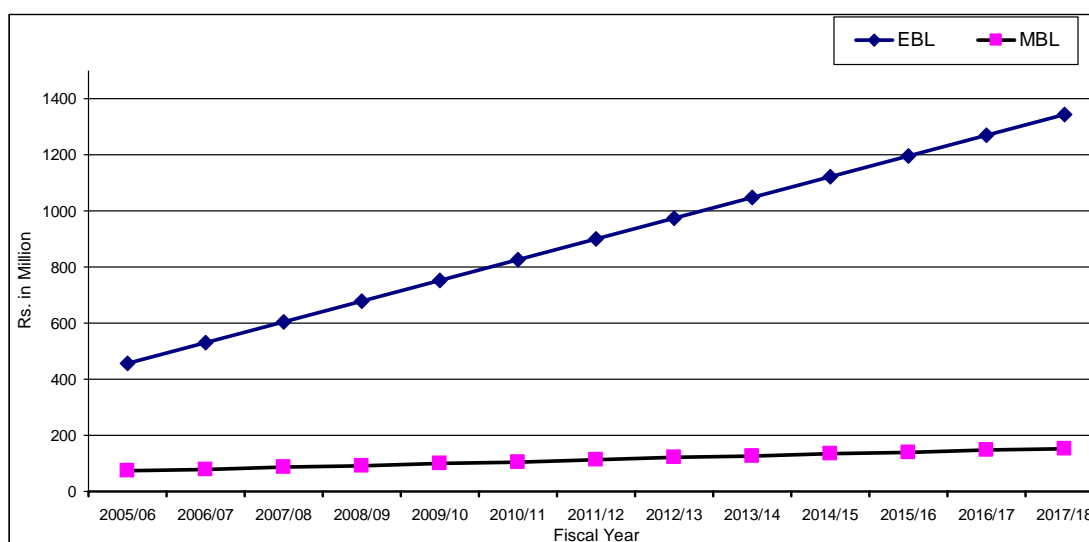
$$Y_c = 85.476 + 6.859 X \text{ MBL}$$

Table No. 4.33
Trend Analysis of Net Profit between EBL and MBL

Year(x)	EBL	MBL
2005/06	458.624	71.758
2006/07	532.336	78.617
2007/08	606.048	85.476
2008/09	679.76	92.335
2009/10	753.472	99.194
2010/11	827.184	106.053
2011/12	900.896	112.912
2012/13	974.608	119.771
2013/14	1048.32	126.63
2014/15	1122.03	133.489
2015/16	1195.74	140.348
2016/17	1269.46	147.207
2017/18	1343.17	154.066

Source: Annul Report of Concern Bank & Appendix IV

Figure No 4.4
Trend Analysis of Net Profit between EBL and MBL



Source: Table No. 4.33

The above table reveals the trend of Net profit of EBL and MBL. Net profit both bank EBL and MBL forecasted in increasing trend. The trend of increasing value of net profit of EBL is higher and aggressive than MBL. The net profit of EBL 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 2017/18 i.e. further Eight year.

Above statistics shows that both the banks have inconsistent net profit throughout the study period. In conclusion, EBL is doing better in order to generate net profit during the projected study period in conclusion the prospect of profit generating capacity of EBL is high than the MBL.

4.3 Major Findings

From the above research study, following findings are drawn from both financial and statistical aspect, major findings of the study are described below: .

1. The mean current ratio of EBL is 1.71 and MBL is 1.95, the current ratio of MBL is little higher than EBL. It is indicate better liquidity position of MBL.
2. Cash and bank balance to total deposit ratio of MBL has higher than EBL i.e. 13.80% > 6.10% which indicates that the bank has higher liquidity of MBL as compare to EBL. 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..
3. Investment on government securities to current assets of EBL has higher than MBL i.e. 24.87% > 8.87%. It shows EBL 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.
4. The loan & advances to total deposit ratio of EBL is lower than MBL 70.99% < 80.36%. 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.
5. The total investment to total deposit of EBL is much higher than MBL i.e. 31.94% > 11.59%. It shows the EBL is mobilizing its funds on investment in various securities efficiently. It can be said that EBL is more successful in utilizing its total deposit by investing in marketable securities
6. Return on loan & advances ratio of EBL is higher than that of MBL i.e. 4.28% > 1.38%. It can be concluded that EBL bank has utilized the loan and advance for the profit generation purpose in proper way.

7. Return on total assets ratio of EBL is higher than MBL i.e. $2.57\% > 0.97\%$. However, EBL seems successful in managing and utilizing the available assets in order to generate revenue.
8. Return on equity of EBL is higher than MBL i.e. $34.19\% > 10.22\%$ which shows that EBL is more successful to earn high profit through the efficient utilization of its equity capital.
9. The loan loss provision to loan and advance ratio of MBL is lower than EBL i.e. $2.54\% < 3.008\%$. Therefore the loan loss provision to loan and advance ratio indicates efficient credit policy and gradual increment on the performance of the company. Here, loan loss provision to loan and advance ratio of EBL is higher, which indicates increased volume of non performing loans of EBL; we can say this is due to the ineffective credit policy and poor performance of the company.
10. The credit risk ratio shows the proportion of non-performing loan in total Loan & Advances. Average credit risk ratio of MBL is lower than EBL i.e. $1.05 < 1.07$. MBL has efficient operating of credit management than that of EBL 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%.
11. The liquidity risk of the bank defines its liquidity need for deposit. The average mean ratio of MBL is greater than that of EBL (i.e. $9.92\% > 6.10\%$). It signifies that MBL has sound liquid fund to make immediate payment to the depositors.
12. Average earning per share of EBL is much greater than that of MBL i.e. Rs. $117.20 > Rs. 12.37$. EBL is better mobilizing its 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 EBL, it indicates that there is inconsistent in earning per share.
13. The dividend per share of EBL is high than MBL i.e. $70 > 0.26$. It can be concluded EBL has adopted the policy of paying high amount in the form of cash dividends whereas MBL is trying to capitalize its earnings by keeping it in the form of retained earnings. It is noted that MBL provided dividend for tax adjustment of bonus share.

14. Average market price of the share of EBL is greater than that of MBL i.e. 3193.80 > 580.20. It indicates that shareholder of EBL are getting higher price. It shows EBL 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.
15. The mean price-earning ratio of MBL is little higher than that of EBL i.e. 55.40 is greater than 32.61. It indicates that for getting Rs 1 as earning, one should invest Rs 32.61 in EBL and Rs 55.40 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 EBL it suggests to shareholder to sell their stock to get high income.
16. Both EBL and MBL have high positive co-relation between total deposit and loan & advances because EBL 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 banks is significant.
17. There is negative correlation between loans and non performing loans of EBL i.e. -0.735 and positive correlation of MBL i.e. 0.894. EBL coefficient of correlation is insignificant because the $r < 6P.E.$ and MBL coefficient of correlation is significant because the $r > 6P.E.$
18. The coefficient of correlation between loan loss provision of EBL and MBL is positive i.e. 0.959. It implies that loan loss provision of these banks moves in the same direction.
19. The degree of relationship of loan & advances between the EBL 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.E. The correlation of net profit between EBL 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 6PE.

20. EBL and MBL have increasing trend in collecting deposit the rate of increment of total deposit for EBL seems to be higher than that of MBL Here EBL has better position in collecting deposit than MBL.
21. 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 EBL seems high growing than MBL. It refers that EBL is more aggressive in mobilizing its loan and advance.
22. The trend line of non performing loans for EBL and MBL is fluctuating trend. But trend line of MBL is upward slopping increasing by 75.64 millions and EBL is decreasing by -16.67 millions. It refers that EBL has better credit management than MBL.
23. The trend line of Net profit for EBL and MBL is upward slopping But EBL has aggressively and MBL has smoothly. The position of EBL is better in order to generate profit than MBL.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

As the final chapter of the study, this chapter briefly explains the summary of the study, tries to fetch out findings and conclusion and attempts to offer suggestions and recommendations for strengthen the financial position of the sample banks.

5.1 Summary

The researcher has identified that research problem and set objectives to solve research problems about credit risk management of Everest bank Limited and Machhapuchchhre Bank Limited. The main objective of the study is to analyze the credit risk management of EBL and MBL. The specific objectives of the study are: to examine the credit risk position of the selected commercial banks in Nepal (EBL and MBL), to analyze the credit risk management system and practices of EBL and MBL, to compare the liquidity management, credit 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 undertake 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 32 commercial banks (till 2011), 2 banks were taken as sample using judgmental sampling method. EBL 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 EBL is 1.71 and MBL is 1.95

the current ratio of MBL is little higher than EBL. It indicates better liquidity position of MBL.

Cash and bank balance to total deposit ratio of MBL is higher than EBL i.e. $13.80\% > 6.10\%$. Cash and bank balance to current assets ratio of MBL is higher than EBL and Investment on government securities to current assets of EBL is higher than MBL i.e. $24.87\% > 8.87\%$. It shows EBL has invested more fund in government securities.

In the aspect of Asset Management Ratio, The loan & advances to total deposit ratio of EBL is lower than MBL. The total investment to total deposit of EBL is much higher than MBL i.e. $31.93\% > 11.59\%$. It shows the EBL is mobilizing its funds on investment in various securities efficiently.

The loan & advances to total assets ratio of MBL is greater than EBL. Investment on government securities to total assets ratio of EBL is higher than MBL i.e. $13.36\% > 6.02\%$. This indicates that EBL 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 EBL is higher than that of MBL i.e. $4.28\% > 1.38$. Return on total assets ratio of EBL is slightly higher than MBL i.e. $2.57\% > 0.97\%$. Return on equity of EBL is higher than MBL i.e. $34.19\% > 10.22\%$ which shows that EBL is more successful to earn high profit through the efficient utilization of its equity capital. Total interest earned to total assets ratio of EBL is relatively little lower than that of MBL. Total interest paid to total assets ratio of MBL is higher than EBL i.e. $3.27\% > 1.95\%$. It shows MBL has high interest expenditure to total assets. It supports MBL to increase to interest paid to operating income. The loan loss provision to loan and advance ratio of MBL is lower than EBL i.e. $2.54 < 3.008$. It shows MBL has efficient credit policy and gradual increment on the performance. EBL's loan loss provision ratio is high so it indicates increased volume of non performing loans of EBL.

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 non-performing loan in total Loan & Advances. Average credit risk ratio of MBL is lower than EBL i.e. $1.05 < 1.07$. MBL has efficient operating of credit management than that of EBL 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 EBL (i.e. 9.92% > 6.10%). It signifies that MBL has sound liquid fund to make immediate payment to the depositors.

On the aspect of other ratios, Average earning per share of EBL is much greater than that of MBL i.e. Rs. 117.2 > Rs. 12.37. The dividend per share of EBL is higher than MBL i.e. 70 > 0.26. It can be concluded EBL 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 EBL is greater than that of MBL i.e. 3193.80 > 580.20. It indicates that shareholder of EBL are getting higher price. It shows EBL 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 EBL i.e. 55.40 is greater than 32.61. The conclusion is that MBL seems riskier than EBL. EBL banks has well in other ratios than MBL, EBL has seem better in every angle than MBL.

Coefficient of correlation Both EBL and MBL have high positive correlation between total deposit and loan & advances i.e. EBL is 0.989 and MBL have 0.993. The correlation coefficient of both banks is significant. Correlation between Loan and advance and net profit of EBL is 0.955 and MBL is 0.457. Correlation coefficient between total investment and net profit of EBL and MBL is 0.847 and 0.535 respectively. Correlation coefficient of non performing loans between EBL and MBL shows high negative correlation i.e. -0.493. Correlation coefficient is also insignificant. The correlation of loan loss provision, loan and advance and net profit between EBL 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.E. Conclusion drawn from analysis of Trend Analysis EBL and MBL have increasing trend in collecting deposit the rate of increment of total deposit for EBL 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 EBL seems high growing than MBL. The non performing loan trend line of MBL is upward slopping where as

EBL has downward slopping. The trend line of Net profit for EBL and MBL is upward slopping But EBL has growing aggressively and MBL has smoothly. The position of EBL 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 EBL and MBL effective and efficient. This would help to draw some outline and make reforms in the respective banks.

1. Generally, banks have to maintained liquid assets. The current ratio of the two banks, EBL 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 EBL and MBL.
2. 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, EBL and MBL have made some amount of fund in Government securities. But EBL and MBL are recommended to invest more funds in Government securities instead of keeping them idle.
3. 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 EBL. EBL 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.
4. 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 EBL. So, MBL is strongly recommended to utilize risky assets and shareholders fund to gain high amount of profit.

5. NRB has given directives to commercial banks to invest their certain percentage of investment in deprived 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.
6. 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
7. Keeping all these in consideration, the MBL has less performance than that of EBL. MBL seems lower creditworthiness than EBL. Therefore, in the future ahead, the MBL should improve its weaknesses by adopting the innovative approach to recover their bad loans. In the light of growing competition in the banking sector both bank EBL 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 their non performing loan.

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Appendix I

Trend analysis of Total Deposit of EBL and MBL

Year(x)	EBL	MBL
2005/06	11792.6	3245.71
2006/07	16227.3	5304.1
2007/08	20662	7362.49
2008/09	25096.7	9420.88
2009/10	29531.4	11479.3

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where $x = X - \text{Middle year}$

Here,

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum xY}{\sum x^2}$$

EBL

$$a = 20662$$

$$b = 4434.70$$

MBL

$$a = 7362.49$$

$$b = 2058.39$$

Where as

$$Y_c = 20662 + 4434.70 X \text{ of EBL}$$

$$Y_c = 7362.49 + 2058.39 X \text{ of MBL}$$

Appendix II
Trend line of Total Loan and Advance of EBL and MBL

Year(x)	EBL	MBL
2005/06	7459.96	3021.3
2006/07	10590.9	4457.99
2007/08	13721.9	5894.68
2008/09	16852.9	7331.36
2009/10	19983.9	8768.05

Let trend line be

$$Y = a + bx \dots\dots\dots (I)$$

Where $x = X - \text{Middle year}$

Here,

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum xY}{\sum x^2}$$

EBL

$$a = 13721.91$$

$$b = 3130.97$$

MBL

$$a = 5894.676$$

$$b = 1436.69$$

Where as

$$Y_c = 13721.91 + 3130.97 X \text{ of EBL}$$

$$Y_c = 5894.676 + 1436.69 X \text{ of MBL}$$

Appendix III
Trend Line of Non Performing Loans between EBL and MBL

Year(x)	EBL	MBL
2005/06	129.20	16.92
2006/07	113.17	85.16
2007/08	121.00	92.90
2008/09	117.45	342.85
2009/10	43.71	266.27

Let trend line be

$$Y = a + bx \dots\dots\dots (I)$$

Where x = X - Middle year

Here,

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum xY}{\sum x^2}$$

EBL

$$a = 104.906$$

$$b = -16.67$$

MBL

$$a = 160.82$$

$$b = 75.64$$

Where as

$$Y_c = 104.906 - 16.67 X \text{ of EBL}$$

$$Y_c = 160.82 + 75.64 X \text{ of MBL}$$

Appendix IV

Trend Analysis of Net Profit between EBL and MBL

Year(x)	EBL	MBL
2005/06	458.624	71.758
2006/07	532.336	78.617
2007/08	606.048	85.476
2008/09	679.76	92.335
2009/10	753.472	99.194

Let trend line be

$$Y = a + bx \dots\dots\dots (I)$$

Where $x = X - \text{Middle year}$

Here,

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum xY}{\sum x^2}$$

EBL

$$a = 606.048$$

$$b = 73.712$$

MBL

$$a = 85.476$$

$$b = 6.859$$

Where as

$$Y_c = 606.048 + 73.712 X \text{ EBL}$$

$$Y_c = 85.476 + 6.859 X \text{ MBL}$$