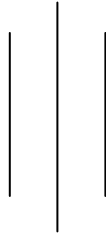


**CREDIT RISK MANAGEMENT OF MACHHAPUCHHRE BANK
LIMITED AND KUMARI BANK LIMITED**



By

Miss. Anjana Bagale

Shanker Dev Campus

Roll No.: 1965/064

T.U. Regd. No.: 7-1-502-29-2002

2nd Year Symbol No.: 392106



Thesis Submitted to:
Office of the Dean
Faculty of Management
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*In partial fulfillment of the requirements for the degree of
Master of Business Studies (M.B.S.)*

Kathmandu, Nepal

April, 2014

RECOMMENDATION

This is to certify that the thesis

Submitted by:

ANJANA BAGALE

Entitled:

CREDIT RISK MANAGEMENT

(A Comparative Risk Analysis of Machhapuchchhre Bank Ltd
and Kumari Bank Ltd.)

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

.....
Asso. Prof. Kishor Maharjan
(Thesis Supervisor)

.....
Prof.Dr. Kamal Deep Dhakal
(Head, Research Department)

.....
Asso. Prof. Prakash Singh Pradhan
(Campus Chief)

VIVA-VOCE SHEET

We have conducted the viva –voce of the thesis presented

by:

ANJANA BAGALE

Entitled:

CREDIT RISK MANAGEMENT

(A Comparative Credit Risk Analysis of Machhapuchchhre Bank Ltd.
and Kumari Bank Ltd.)

*And found the thesis to be the original work of the student and written according
to the prescribed format. We recommend the thesis to be
accepted as partial fulfillment of the requirement for the degree of
Master of Business Studies (MBS)*

Viva-Voce Committee

Head, Research Department

Member (Thesis Supervisor)

Member (Thesis Supervisor)

Member (External Expert)

TRIBHUVAN UNIVERSITY

Faculty of Management

Shanker Dev Campus

DECLARATION

I hereby declare that the work reported in this thesis entitled “Credit Risk Management (A Comparative Risk Analysis of Machhapuchchhre Bank Ltd. and Kumari Bank Ltd.)” submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of Prof. Kishor Maharjan of Shanker Dev Campus, T.U.

.....

ANJANA BAGALE

Shanker Dev Campus

Campus Roll No.: 1965/064

T.U. Regd. No.: 7-1-502-29-2002

2nd Year Exam Symbol No.: 392106

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ABBREVIATIONS

\$:	Dollar
AD	:	Standard Deviation
ADB	:	Asian Development Bank
ADB/N	:	Agricultural Development Bank of Nepal
ATM	:	Automated Teller Machine
B.S.	:	Bikram Sambat (Nepalese Calander)
BOK	:	Bank of Kathmandu
BR Act	:	Banking Regulations Act
CAR	:	Capital Adequacy ratio
CEO	:	Chief Executive Officer
CIB	:	Credit Information Bureau
CPG	:	Credit Policy Guidelines.
CRR	:	Cash Reserve Ratio
CV	:	Coefficient of Variation
e.t.c	:	Etcetera
EBL	:	Everest Bank Limited
EOD	:	End of Day
EPS	:	Earning Per Share
F/Y	:	Fiscal Year
FI	:	Financial Institutions
GDP	:	Gross Domestic Product
GNI	:	Gross National Income
GNP	:	Gross National Product
GON	:	Government of Nepal
HBL	:	Himalayan Bank Limited
I.M.F	:	International Monetary Fund
KBL	:	Kumari Bank Ltd.
LLP	:	Loan Loss Provision
m	:	Million

MBL	:	Machhapuch chhre Ban k Ltd.
NABIL	:	Nabil Bank Limited
NBBL	:	Nepal Bangladesh Bank Limited
NBL	:	Nepal Bank Limited
NGO	:	Non governmental Organization
NPA	:	Non Performing Assets
NPL	:	Non Performing Loan
NRB	:	Nepal Rastra Bank
P.Er.	:	Probability of Error
r	:	Karl Pearson's Correlation C oefficient
r ²	:	Coefficient of Determination
RBB	:	Rastriya Banijya Bank
RDB	:	Rural Development Bank
Rs.	:	Rupees (Nepalese Monetary Unit)
TU	:	Tribhuvan University
UK	:	United Kingdom
USA	:	United States Of America
USD	:	United State Dollar

CHAPTER I

INTERDUCTION

1.1 General Background

Banks and financial institutions are the institution that keeps on providing complete financial solutions to its valued customers in return for interest, fees and commission. Everyone is acquainted with the basic function of the banks and financial institution. They provide loans and advances in the form of various credit facilities to its customer and in return receive interest, fees and commission for the risk assumed thereon. Thus, in this process they assume various risks among which credit risk is the one that covers the significant portion, since, myriad of a bank deposits are invested in the form of loans. Banks and financial institutions are vulnerable to various risks because of poor credit appraisal of borrower, lack of credit standards, poor portfolio management and towards current political, and legal, economic and social environments. These all leads to the deterioration in the credit standard of the bank thereby creating the credit risk. Thus a bank must be well acquainted to manage the risk associated with the credit. They must adequately examine borrowers character, capacity, collateral, creditworthiness before making any investment on them, this, however, does not make sure in the high credit standard and good loans. A borrower can default despite of his serious efforts in making payments because of other situation and risk associate with such as market risk. Thus, before making any decision on lending a bank must examine every situation and risks. Some of the risk a bank may encounter or witness may be market risk, operation risk, credit risk, interest rate risk, currency risk etc. Among them credit risk covers the significant risk since a bank's main function is to carry out lending which covers around 80% of the total deposits and capital of a bank. Thus, we need to know what actually a credit risk is and how does it affects the existence of a bank.

Credit risk is the major risk that banks are exposed to during the normal course of lending and credit underwriting. In other term, the risk associated for nonpayment of interest and principal for credit facilities extended to the clientele is credit risk. In general term, risk is

deviation of what we expect to what actually happens. Banks and financial institutions extend credit facilities (Loans and Advances) to its customers in a return for Interest accrued thereon. Bank and financial institution grants loans and advances to different borrowers taking calculated risk. Pertaining to it, sometimes the calculated risk does fail and the borrower defaults. This is what we call credit risk.

To proceed with let's first discuss what literally a loan stands for. Loans and advances are the financial asset of a bank for a reasonable return in the form of interest, fees and commission; this is the overall income for any financial institutions.

Loan can take different form according to the requirements of borrower pertaining to the maturity of loans, purpose of loan etc. Following are some of them but not limited to its type:

- a. Consumer loans such as vehicle loan, equipment loan, home loan, credit loan mortgage loan, margin lending, gold loan, and loan against fixed deposit etc.
- b. Corporate loans such as overdraft, short term loans, demand loans, working capital loan, letter of credit, trust receipt loan etc.

1.1.1. Assessing Credit Risk

Credit risk is an investor's risk of loss arising from a borrower who does not make payments as promised. Such an event is called a default. Another term for credit risk is default risk. Investor losses include lost principal and interest, decreased cash flow, and increased collection costs, which arise in a number of circumstances. Thus, banks and financial institutions deploy their maximum time in managing credit risk. The bank's willingness to undertake or maintain credit risks is determined by the recognition, evaluation and weighing of all positive and negative factors of a proposal. The purpose of credit risk assessment is to determine the customer's ability to meet his obligations to the Bank (and to other lenders and creditors) as they fall due.

Credit risk assessment thus involves:

1. Determining the Maximum Credit Risk

The following factors must be considered:

- Principal Risk: that the customer may not be able to repay indebtedness.
- Income Risk: that the customer may not be able to meet interest and fee
- Payments as they fall due.

2. Analyzing Financial and Other Information

The financial and non-financial information must be relevant and up to date in order to carry out meaningful credit risk assessment. Analysis of the information, evaluation and weighing of all positive and negative factors with a view of determining credit limits and associated terms and conditions is a matter of subjective judgment. Each officer in the credit approval process must be satisfied that he has sufficient information on which to make a recommendation or decision. Risk assessment will include, but not limited to an analysis of the following:

- Management strengths and weaknesses including the honesty, integrity and reliability of the customer and willingness to honor obligations.
- The customer's knowledge, management expertise and ability to implement strategies to ensure obligations are met.
- Financial strength, including its ability to repay loans and meet commitments based on historical and projected financial statements.
- Business environment and general business outlook.
- Current and future business prospects including external conditions affecting the customer such as economic and political trends, role and position in the industries in which the customer operates position of the industries in the business cycle and vulnerability to technological change.
- The size and structure of the proposed facilities and their fit with customer needs
- Past performance of facilities
- Environmental risks.
- Revenue / Earnings for the Bank.

- The nature and value of security (to be given) to the Bank and to other lenders.

3. Assessing Safety

It must always be remembered that the longer the duration of exposure, the more difficult it is to assess a customer's creditworthiness.

If the customer is a member of a group, a safety assessment of both the borrowing entity and overall customer group is desirable.

The Bank does not normally undertake exposure to a customer simply because it is fully secured by attractive and high value real estate mortgages. It must be established that the customer would have ability, and would be willing; to meet his financial commitments to the Bank, and it is highly unlikely that the Bank would have to enforce the security to recover its dues.

When the assessment has been completed, it may be decided that (additional) security is required to offset a weakness in the credit proposal, preclude other lenders or creditors from controlling the customer's assets and provide the Bank with a backup in case the customer fails. Officers involved in the credit risk assessment must be satisfied that the positive factors outweigh the negative factors of the proposal.

In addition to it, significant resources and sophisticated programs are used to analyze and manage risk. Some companies run a credit risk department whose job is to assess the financial health of their customers, and extend credit (or not) accordingly. They may use in house programs to advice on avoiding, reducing and transferring risk. They also use third party provided intelligence. Companies like Standard & Poor's, Moody's Analytics, Fitch Ratings, and Dun and Bradstreet provide such information for a fee.

Most lenders employ their own models (credit scorecards) to rank potential and existing customers according to risk, and then apply appropriate strategies. With products such as unsecured personal loans or mortgages, lenders charge a higher price for higher risk customers and vice versa. With revolving products such as credit cards and overdrafts, risk is controlled through the setting of credit limits. Some products also require security, most

commonly in the form of property.

Credit scoring models also form part of the framework used by banks or lending institutions grant credit to clients. For corporate and commercial borrowers, these models generally have qualitative and quantitative sections outlining various aspects of the risk including, but not limited to, operating experience, management expertise, asset quality, and leverage and liquidity ratios, respectively. Once this information has been fully reviewed by credit officers and credit committees, the lender provides the funds subject to the terms and conditions presented within the contract (as outlined above).

Credit risk has been shown to be particularly large and particularly damaging for very large investment projects, so-called megaprojects. This is because such projects are especially prone to end up in what has been called the "debt trap," i.e., a situation where – due to cost overruns, schedule delays, etc. – the costs of servicing debt becomes larger than the revenues available to pay interest on and bring down the debt.

1.1.2. Mitigating Credit Risk

Lenders mitigate credit risk using several methods:

A. Risk-based Pricing

Lenders generally charge a higher interest rate to borrowers who are more likely to default, a practice called risk-based pricing. Lenders consider factors relating to the loan such as loan purpose, credit rating, and loan-to-value ratio and estimate the effect on yield (credit spread).

B. Covenants

Lenders may write stipulations on the borrower, called covenants, into loan agreements:

- Periodically report its financial condition
- Refrain from paying dividends, repurchasing shares, borrowing further, or

other specific, voluntary actions that negatively affect the company's financial

- Position Repay the loan in full, at the lender's request, in certain events such as changes in the borrower's debt-to-equity ratio or interest coverage ratio.

C. Credit Insurance and Credit Derivatives

Lenders and bond holders may hedge their credit risk by purchasing credit insurance or credit derivatives. These contracts transfer the risk from the lender to the seller (insurer) in exchange for payment. The most common credit derivative is the credit default swap.

D. Tightening

Lenders can reduce credit risk by reducing the amount of credit extended, either in total or to certain borrowers. For example, a distributor selling its products to a troubled retailer may attempt to lessen credit risk by reducing payment terms from *net 30* to *net 15*.

E. Diversification

Lenders to a small number of borrowers (or kinds of borrower) face a high degree of unsystematic credit risk, called concentration risk. Lenders reduce this risk by diversifying the borrower pool.

F. Deposit Insurance

Many governments establish deposit insurance to guarantee bank deposits of insolvent banks. Such protection discourages consumers from withdrawing money when a bank is becoming insolvent, to avoid a bank run, and encourages consumers to holding their savings in the banking system instead of in cash.

In addition to it, NRB has been constantly focusing on managing credit risk and applying its credit risk managing tools to govern every banks and financial institution to protect and act on behalf large depositors and shareholders. NRB being central bank plays a mentor and patron role in risk managing. The main tools applied by NRB to monitor and mitigate that

risk are listed below but not limited to following:

1. Implementing BASSEL III (Capital Adequacy)

Institution	Minimum Capital Reserve as per Risk Weighted Exposure	
	Primary Capital	Supplementary Capital
"A" class	6%	10%
"B" & "C" Class	5.5%	11%
D" Class	4%	8%

2. Loan loss provisioning
3. Single obligor limit and sector wise lending
4. Investment provisions
5. Consortium loan arrangements
6. Merger and Acquisition Policy

All above tools including other as required by NRB are very effective tools that checks and monitors credit risk. Every banks and financial institution must comply with the terms and conditions stated on Unified NRB Directives 2068. Here, minimum standard threshold are stated below which the banks and financial institutions are obliged to comply. Mitigating credit risk is not a simple job, careful analysis and adequate time must be devoted. Despite of tremendous effort shown by NRB, many banks plays on loopholes and thus become problematic and helpless. Moreover, senior officials and even the chairman involvement in providing loans on nepotism basis and utilizing funds for personal use has created many serious problems that has degraded the ban king position and its values. For instance, we have witnessed these problems in Nepal Share Markets and Finance Ltd., Gorkha Development Bank, Capital Merchant Bank, and even Vibor Bikas Bank Ltd. These are the lively examples of poor portfolio management and poor lending consequences.

NRB must envisage these and future problems and come up with more effective and accurate policies and guidelines in order to maintain good banking reputation in the eyes of the public and provide safer place for depositors. Though, we have been experiencing more and more tougher policies implemented by NRB under helm of governor Mr. Yuv Raj Khatiwada, tight rules and regulation are even sought on urgent basis to control threatening downsizing economy.

1.1.3. Banking System in Nepal

A bank is a financial institution that acts as a financial intermediary to privilege its clientele with complete financial solution and also a crucial means in accelerating the overall growth and development of economy. Commercial bank accepts deposits and pools those funds to provide credit, either directly by lending, or indirectly by investing through the capital markets. Within the global financial markets, these institutions connect market participants with capital deficits (borrowers) to market participants with capital surpluses (investors and lenders) by transferring funds from those parties who have surplus funds to invest (financial assets) to those parties who borrow funds to invest. Thus, a bank has a tremendous effort in development of trade and industry. They act as a backbone for facilitation of any banking services required in execution and operation of trade and industry. This in turn leads trade balance, higher gross domestic product, increase in exports and ultimately increasing per capita income of the citizens.

In Nepal, establishment of Nepal Bank Limited on Kartik 30, 1994 B.S. (1937 A.D.) begin providing financial solutions to its customers. This marked the beginning of an era of formal banking in Nepal. Until then all monetary transactions were carried out by private dealers and trading center. Nepal Rastra Bank, the central bank of Nepal was established in 1956 A.D to discharge the central banking responsibilities including guiding the development of the embryonic domestic financial sector followed by Rastriya Banijya Bank in 1966 A.D. As Nepalese government took liberal economic policy in 1980s, joint venture banks started to operate since 1984 A.D with the establishment of NABIL Bank Ltd. erstwhile known as Nepal Arab Bank Ltd.

However, the current market scenario of the Nepalese banking system is in the deteriorating state. NRB has been implementing its various strategies to tighten and control the banks and financial institutions. Rupee saving of even a small depositor has come into threat. NRB's control over the management of Nepal Credit and Commerce Bank Ltd followed by the latest liquidation of Nepal Bikas Bank to most recent problematic and risky Kist Bank, Gorkha Development Bank, Nepal Share Markets and finance Ltd, Vibor Bikas Bank has led the depositor to be skeptic about the whole banking industry. Depositor has even begun withdrawing their entire savings from these banks and other counterparts as well, which in turn has seriously affected the liquidity crisis. Banks are even unable to make payment of cheques.

Pertaining to it, NRB vide its circular is in process of providing special refinancing schemes to banks and financial institutions to avert this liquidity crisis in market. However, this facility shall be paid off within six months of time including subsidized interest accrued thereon.

Thus, NRB's interference in each and every activities of banking industry to tighten and monitor banks and financial institutions is mandatory in current situation. Various existing credit risk management policy are further intensified and tightened to smooth the whole banking industry.

Brief Introduction of Machhapuchchhre Bank Ltd. (MBL)

Machhapuchchhre Bank Limited was registered in 1998 as the first regional commercial bank to start banking business from the western region of Nepal with its head office in Pokhara. Today, with a paid up capital of above 2,478 million rupees, it is one of the full fledged commercial bank operating in Nepal; and it ranks in the topmost among the private commercial banks.

The bank in the last few years have really opened up with branches spread all around the country. At this stage, it has its Corporate Office in Kathmandu. The bank has wide range of modern banking services through 56 points of representations located in various urban and semi urban part of the country, 18 inside and 38 outside the valley with 65 ATM points.

Machhapuchchhre Bank Limited is striving to facilitate its customer needs by delivering the best of services in combination with the state of the art technologies and best international practices.

Machhapuchchhre Bank Limited is the pioneer in introducing the latest technology in the banking industry in the country. It is the first bank in Nepal to introduce centralized banking software named GLOBUS BANKING SYSTEM developed by Temenos NV, Switzerland. Currently it is using the latest version of GLOBUS, referred as T-24 Banking System. The bank provides modern banking facilities such as Any Branch Banking, Internet Banking and Mobile Banking to its valued customers.

Brief Introduction of Kumari Bank Ltd. (KB L)

Kumari Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 1,603,800,000 of which 70% is contributed from promoters and remaining from public.

Kumari Bank Ltd has been providing wide - range of modern banking services through 28 points of representations located in various urban and semi urban part of the country, 19 outside and 9 inside the valley with 2 extension counter. The bank is pioneer in providing some of the latest / lucrative banking services like E-Banking and SMS Banking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, Utility Bill Payment Services, Inward and Outward Remittance services, Online remit Services and various other banking services.

Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 39 own

ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers. The bank has been able to get recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, corporate governance and total quality management as the organizational mission.

The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various parts of the country by offering modern and competitive banking products and services in their door step. The bank always prioritizes the priorities of the valued customers.

Vision Statement

Our vision is to be the preferred financial partner to our customers, a center of career growth to our employees, and to maximize our shareholders' value, while contributing to our nation's financial sector and to its economic welfare.

Mission Statement

Our mission is to deliver innovative products and services to our customers, use these innovative products to achieve financial inclusion, and do so by exemplifying good corporate governance, proactive risk management practices, and superior corporate social responsibility.

1.2 Statement of the Problem

Banking industry has always seemed a profitable, charming and glamorous in the eye of everyone (layman) since its inception. They are assumed to yield high rate on invested assets with the net profit of the whole commercial banking system of Rs. 20.15 billion in fiscal year 2012/13. However, unlike general perception, the industry is threatened with immense challenges and competition to sustain and outpace those within the industry, mainly due to rising competition among commercial banks in addition to weakening economic situation of the country, indicated by the GDP growth rate of 3.60% the fiscal year

2012/13.

Presently, we are even witnessing many serious liquidity crises in the market and other credit related inefficiencies that has had seriously hit the market, even threatening the existence of those banks. Thus, NRB has recently announced a Basel III to scheme to banks and financial institutions to strengthen bank capital requirement by increasing bank liquidity and decreasing bank leverage.

Similarly, embracing liberalized policy on entrant of foreign banks to operate their branch in Nepal without joint venture of Nepalese investors has threatened existing indigenous banks and financial institution. This has resulted in increased pressure for Nepalese commercial banks to compete with foreign banks. Additionally, commercial banks are compelled to increase their paid up capital to Rs. 6 billion by 2019 has challenged most of the commercial banks in Nepal.

Major problem of the banking sector in Nepal is the Credit Risk. Poor lending practices, which are indicated by poor financial analysis of borrowers, inadequate or substandard collateral and poor portfolio analysis, poor tracking of credit and intention of borrowers to default and also involvement of banks directors and management to use fund for their own welfare and purpose have resulted in the high amount of Non Performing Loans of major commercial banks such as Kist Bank, Agriculture Development Bank, and Rastriya Banijya Bank had the excess NPL to Total Loans ratio of 6.59%, 5.72% and 5.31% respectively in the fiscal year 2012/13. Because of the high amount of non-performing loan of these banks, these banks carries high amount of accumulated loss, which is indicated by the high amount of negative retained earnings and negative capital funds.

These huge negative capital funds of two big banks namely RBB and NBL have negative impact on capital base of the Nepalese banking system. The negative capital fund of Rs. 3889.10 million of Nepal Bank Limited and Rs. 7106.65 million of Rastriya Banijya Bank in fiscal year 2012/13 had a serious impact on capital fund of overall commercial banks.

Present challenges to the banking sector are to invest the money in productive as well as new sector and to manage the accumulated non-performing loan. The non-performing loan

for entire commercial banking industry is Rs. 16,268.68 million in the end of fiscal year 2012/13 which is 2.25% of Total Gross Loan.

Further, the introduction of new Unified directives by the NRB in 2070 B.S. 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's, 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. As per NRB Unified Directive 2070 the capital adequacy ratio is 6% on Primary capital (Core Capital) and 10% on Total Capital (Primary + Supplementary).

Likewise, implementation of Basel III from 2013 in Nepal in parallel way has also been the challenge for Nepalese Commercial Banks. Basel III is mainly concerned with the liquidity management for providing enough cushions to absorb the risk faced by commercial banks. The Basel III 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 200%. (Basel, 2012). 2002

Machhapuchhre Bank Ltd and Kumari Bank Ltd established as 14th and 15th commercial banks in Nepal respectively are not isolated with above mentioned challenges and problems faced by the entire banking industry. More specifically, the major problems related to these banks are proper compliance of NRB Directives and international measures. The researcher has selected Kumari Bank Ltd. (KBL) and Machhapuchhre Bank Limited (MBL) as the samples for the study. Since their date of establishment and the size of capital are also quiet similar, these two banks are chosen for study. Both the banks are in the growing stage, but in order to achieve their expected growth target, these banks must be able to manage the various risks, especially, the credit risk.

Therefore, within this liberalized competitive market scenario, the stringent credit risk management, compliance of NRB's prudential and Basel III are the major problems and

challenges for these banks to sustain and grow in the industry.

Thus this research particularly focuses on the problem faced by the commercial banks that connects with KBL and MBL. The research is focused on

- What are the total loans and advances to total deposit ratio of the sample banks?
- What is the capital adequacy ratio of the sample banks? Had they been able to maintain the adequate capital as per NRB?
- What is the non-performing loan to total loans and advances ratio?
- What is the loan loss provision to total loans and advances ratio?
- What is the security wise loan position of the sample banks?
- Identification, analysis and interpretation of different types of risk particularly on credit risk.
- Credit Risk that has seriously hit KBL and MBL along with other commercial banks and financial institutions.
- Measure to avert this risk and maintain good corporate governance.

1.3 Focus of the Study

The Study basically focuses on the major credit threats and the emerging credit risks that current banks and financial institutions are exposed to. It then, explains the various measures to acquaint with the emerging threat by strictly complying with the governing body i.e. NRB and bring standard and prudential performance in the industry. Pertaining to it, the study focuses on measurement and comparison of credit risks of the selected commercial banks i.e. MBL and KBL, analysis of Credit Risk Management systems and practice followed by the Nepalese Commercial Banks by taking KBL and MBL as the sample banks, the analysis of the directives of Nepal Rastra Bank issued to commercial banks and also is focused on finding out if the banks have taken proper measures to be adequately compensated for the credit risk they are exposed to.

1.4 Objectives of the Study

The study aims at maintaining credit safety for every commercial bank and other financial institutions as well. For this, the credit threats are examined, analyze and interpreted to various concerned authority and corrective actions and measures are listed out and the most suitable one is opted to mitigate the risk. The major objectives of the study are listed out as below.

- To examine and analyze the total loans and advances to total deposit.
- To examine and analyze the capital adequacy ratio.
- To examine the non-performing loan to total loans and advances.
- To examine and analyze loan loss provision to total loans and advances ratio.
- To examine and analyze security wise loans loan classification.
- To examine the credit position of the sample banks.

1.5 Significance of the Study

From the very beginning of banking era, it is responsible for the overall growth and development of economy. It pools large borrower and saver together. It makes huge investment possible from the pooled funds. Thus, proper management of credit risk is mandatory in every organization. No organization can escape from ever changing environments such as Political, Economic, Social, and Technological that keeps on threatening. The success of any organization largely depends on how efficiently funds are being managed, its good portfolio and its ability to manage various risks. Banking sector involves several risks, which need to be handled promptly for the survival and growth. As this research focuses on analyzing 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 research has its significant to various stakeholders as listed below.

- To banks and financial institutions licensed and governed by NRB. Their officials and higher management to take credit related decisions and correct their earlier

mistakes. Also, this research highlights the major NRB guidelines related to credit to mitigate risk. This in turn helps the banks and its officials to perform better and comply with guidelines provided by NRB.

- To various individuals who has direct or indirect relation or transaction with the banks and financial institution. Poor lending leads to failure, thus individuals are careful in depositing their life time savings to those institutions that have properly managed their portfolios and have minimal credit risk shown by minimal or no bad loans, adequate capital reserves and liquidity etc.
- To the governing body to tighten the existing guidelines to avoid loopholes that institutions keep on playing. Further, provide insight and envisage policymaker on emerging credit risk identification to smooth the current liquidity crisis and help problematic banks and financial institutions.
- To Investor, Creditor, depositor & borrower. The Investor, Creditor and depositor can collect, interpret and analyze data and make appropriate decision on whether to invest on particular organization or not. Depositor with these measures can make decision on depositing their lifelong saving on sound organization. Borrower can evaluate the organization and decide to borrow the funds from organization having lower cost of fund thereby minimizing their own cost itself.

1.6 Limitations of the Study

The study is based on sole research and analysis made by sole individual. Various journal and articles ex tracts has been the addendum. Thus the reliability of the research largely based upon the directives, journal, articles and newspapers. Management, resource mobilization and time constraints limit the in-depth study of all commercial banks operating except commercial banks under study.

- The evaluation is made through the analysis of financial statement published and presented by the banks. Therefore generalization of the whole banking industry cannot be made. The secondary data of only five years are taken i.e. from 2008/09 to 2012/13. Inaccessibility of sufficient information also limits the conclusion drawn from study.

1.7 Organization of the Study

The study organized in following manner:

Chapter I is the introductory part of the study. This chapter describes the general background of the study, focus of the study, statement of the problem, objectives of study and limitations of the study.

Chapter II includes a discussion on the conceptual framework and review of the related and pertinent literature available. The conceptual considerations and review of related literature conducted in this chapter provides a framework with the help of which the study has been accomplished.

Chapter III describes the research methodology employed in the study. In this chapter, research design, nature and sources of data, methods of data collection and tools and techniques of data analysis are discussed.

Chapter IV consists of presentation and analysis of data, which deals with the empirical analysis of the study and the major findings of the study.

Chapter V is the summary, conclusion and recommendations of the study.

CHAPTER - II

REVIEW OF LITERATURE

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

I) Conceptual Review

II) Review of Related Studies

2.1 Conceptual Review

2.1.1 Meaning of Risk

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

2.1.2 Types of Risk Faced by Commercial Banks

Risk and uncertainties are the integral part of banking business. In banking sector, risk refers to the possibility that the bank will turn into liquidation. There are several inherent 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. The major sources of risk in banking business are briefly discussed as below:

I. Credit Risk

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

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

Counterparty risk is like credit risk, but it is generally viewed as a more transient financial risk associated with trading than standard creditor default risk. In addition, counterparty's failure to settle a trade can arise from other factors beyond a credit problem. So, the goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Bank should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization.

II. Market Risk

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

- Liquidity Risk
- Interest Rate Risk
- Foreign Exchange Risk

a) Liquidity Risk:

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

liability holders demand for cash either because it has cash on hand or can otherwise raise or borrow cash.

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

b) Interest Rate Risk (IRR)

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

c) Foreign Exchange Risk:

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

bank may incur replacement cost, which depends upon the currency rate movements.

III. Operational risk

Operational risk is associated with the problems of accurately processing, settling, and taking or making delivery on trades in exchange for cash. It also arises in record keeping, processing system failures and compliance with various regulations. The Basel Committee on Banking Supervision, Basel September (2000), defines operational risk as “the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events”.

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

2.2 Review of NRB Directives

The main focus of this study is to analyze the directives of Nepal Rastra Bank related to Credit Risk Management of Commercial Banks. The directives issued from time to time are one of the tools used by the central bank to control and monitor the commercial banks. In the present context, the directives are issued by NRB quite regularly. In 2005, NRB, by using the rights given by the Nepal Rastra Bank Act 2058, has issued unified directives to regulate all three categories of financial sectors in Nepal to ensure that the banking industry functions as per the international standard and also to have more effective control mechanism for overall financial sector. In this new unified directive 2070, loan classification and provisioning of loans of financial institutions are mentioned on E. Pra. Directive No. 2/070 with the objective to minimize the possible risks associated with credits extended by financial institutions in the form of overdraft, loans and advances, bills purchased and discounted. Therefore, as per this new unified directive No. 2, banks should classify the

loans and advances on the basis of aging of principal amount into the following 4 categories.

2.2.1. Directive No. 1-Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is the proportion of Capital Fund or Shareholders equity on the total risk weighted asset of a bank. In other words, it is the capital portion, which is used to finance the asset. The total risk weighted asset, on the other hand, includes both on & off balance sheet items, which has been rated with certain percentage of risk. The risk weight of asset ranges from zero for cash, balance at NRB and investment in government bonds to 100 % for loans and advances. The higher the risk weighted asset means lower will be the capital adequacy ratio as CAR is the ratio between Capital fund and Risk Weighted Asset. According to unified directive 2005, the capital fund includes two types of capital,

A. Primary Capital

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

Primary Capital

- i. Paid Up Capital
- ii. Share Premium
- iii. Non-Redeemable Preference Share
- iv. General Reserve Fund
- v. Retained Earnings
- vi. Capital Redemption Reserve
- vii. Net Profit after Provision, Tax & Bonus (Current Year)
- viii. Capital Adjustment Fund
- ix. Other Free Reserve
- x. General Reserve Fund

B. Supplementary Capital

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

Supplementary Capital

- i. General Loan Loss Provision (Good Loans)
- ii. Asset Revaluation Reserve
- iii. Hybrid Capital Instrument
- iv. Unsecured Subordinated Term Debt
- v. Exchange Equalization Reserve
- vi. Additional Loan Loss provision
- vii. Investment Adjustment Reserve

C. Capital Fund

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

Capital Fund = Primary Capital + Supplementary Capital

Risk Weighted Asset, on the other hand, refers to 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), Government Bonds, loan against own bank's fixed deposit investment in NRB and 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 money at call, loan against internationally rated bank's guarantee fixed deposit receipts, 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 Classifications of Loans and Advances:

a. Pass Loan

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

b. Substandard Loan

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

c. Doubtful Loan

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

d. Bad Loan

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

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

Notes:

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

Additional arrangements in respect of Pass Loan

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

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

Additional arrangements in respect of "Bad Loan"

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

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

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

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

Additional arrangements in respect of Term Loan

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

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

Letter of Credit and Guarantees

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

“Bad Loan”.

Rescheduling and restructuring of Loan

1. In respect of loans and advances falling under the category of Substandard, doubtful or loss, banks may reschedule or restructure such loans upon receipt of a written plan of action from the borrower citing the following reason:
 - i. Evidence of adequate collateral and documentation regarding Loans.
 - ii. 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 Loan	Loan Loss Provision
Good	1 Percent
Substandard	25 Percent
Doubtful	50 Percent
Bad	100 Percent

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

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

2. Loan Loss Provisioning in respect of reschedule, restructured or swapped loan
 - i. For rescheduled/restructured loan, loan loss provision should be at least 12.5%.
 - ii. 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)
 - iii. 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 Related Studies

2.3.1 Review of Articles and Journals

Lawrence (2006) has taken Basel II as a big opportunity for risk management. There are three stages in the credit process: the first is the simple risk control of the business-avoiding being over concentrated in any one sector, estimating the probability of defaulting and assessing recovery. In emerging markets, such as China, collection and recovery processes have to be better understood. The legal governance structure of liens has to be vastly improved and this will come in time with the new legal regulations being legislated. However, banks cannot afford to count on the legal system as has been painfully learnt from the Netting cases or the sovereign jurisprudence. These are operational risks that must be taken account of. The second phase is the link between economic capital and return. Clearly banks would like to set minimum rates of return they expect to earn on their portfolios after provisioning. The link between economic profit and risk is the next stage in advancing the practice of credit risk management. Finally, the third stage is when risk management is used as a strategic management tool to align Risk Adjusted Return on Economic Capital (RAROC) with ROE. In most emerging markets, where many commercial banks have been protected from foreign banking invasion, the landscape is now changing. In Malaysia, new legislation will allow regional banks to bank locally and in China, the new foreign bank regulations will allow investment banks, commercial banks and fund managers to enter the market, putting stress on the current “big four” oligopolistic structure. It is precisely in emerging markets where Basel II is an invaluable tool to go through the three stages set out above. This regulation is thus an important catalyst to implement all processes including analytic modeling – this includes better predictability of probability of default, exposure at default and loss given default - the business architecture that goes with it including the right corporate governance, the organization, the risk monitoring and reporting.

Banks that fail to have deep understanding of credit risk management will continue being caught in the time warp of the old banking paradigm and be targets for acquisitions by

larger banks that have stronger risk management policies in place. The only key to survival and sustainable success is to reengineer and reform the risk strategy that maximizes shareholder value. It would thus be fallacious for the CEO to think of Basel II as just a compliance issue but he should rather use it as an opportunity to really get on top of using risk management as a cornerstone of strategic decision making.

Sharma (2008) in their articles “priority sector” has presented the commercial bank should take care of board national interest and they showed not confine their lending activity only to commercial area providing quick interest of some proportion could be directed to the area conducive to build economic infrastructures of the country it would create atmosphere conducive to their investment in future. In our society where ignorance and literacy is in wide scale, it is necessary that the bank search entrepreneurs instead of entrepreneurs searching bank. So they have opined that the priority sector program is a timely and appropriate will designed to create additions productive employment opportunities there by increasing production and the general living standard of rural poor. But the success of the program largely depends upon the integrated operation with other programs designs for rural development. Further they argue that various programmers VIZ. Rural development land reform SAJHA, Back to the village national Champaign. Adult literacy etc. could not material their objective despite their some theoretically philosophy and good objectives.

Shrestha (2009) in her article “Lending Operation of Commercial Banks of Nepal and its Impact on GDP” has made an analysis of contribution of commercial banks, lending to the Gross Domestic Product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of commercial banks to the GDP, in research methodology; she has considered GDP as the dependent variable and various sector of lending like agriculture, industrial, commercial service and general social sector as independent variables. A multiple regression techniques have been applied to analyze the contribution.

The analysis shows that the entire except service sector lending has positive impact on GDP. Thus in the conclusion she had accepted the hypothesis i.e. there has been positive impact on GDP and also she has accepted the hypothesis i.e. there has been positive impact by the

lending of Commercial Banks in various investment.

Poudel (2012) in his journal "The Impact of Credit Risk Management on Financial Performance of Commercial Banks in Nepal" has made analysis of credit risk management of commercial banks, The general objectives of the study was to establish the impact of credit risk management on financial performance of banks and specific objectives were to establish impact of default rate, cost per loan assets on bank financial performance. The result of the showed that credit risk management is an important predictor of bank financial performance thus success of bank performance depends on risk management. The study results also showed that default rate as one of the risk management indicators is a major predictor of the bank financial performance to the extent and followed by capital adequacy ratio. Credit risk management is crucial on the bank performance since it have a significant relationship with bank performance. Among the risk management indicators, default rate management is the single most important predictor of the bank performance whereas cost per loan assets is not significant predictors of bank performance.

Since risk management in general has very significant contribution to bank performance, the banks are advised to put more emphasis on risk management. In order to reduce risk on loans and achieve maximum performance the banks need to allocate more funds to default rate management and try to maintain just optimum level of capital adequacy.

2.3.2 Review of Thesis

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

development of the country. All the changes in NRB directives made impacts on the bank and the result are the followings:

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

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

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

Shrestha (2003) in her thesis "Impact and Implementation of Nepal Rastra Bank (NRB)s

Guidelines (Directives) on commercial banks. A study of Nabil Bank Ltd. and Nepal SBI Bank Ltd.” has tried to find out the following things:

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

She has stated that both NABIL and Nepal SBI are implementing the NRB directives. She concludes that all the changes in NRB Directives made both positive and negative impacts on the commercial banks. Even though this study is limited to only two sample (i.e. Nabil Bank and Nepal SBI Bank, among the entire population, it clears the new directives issued by NRB make good impact to more than bad impact on the various aspect of the banks. It can be seen that the provision has been changed and the increased provisioning amount has decreased the profitability of commercial banks. Apart from, loan exposure has been cut down to customers due to the borrower limits have been brought down by NRB. Therefore reduction in loan amount result to decrease the interest income from loans, which will decrease the profits of the banks in coming years. Decreasing profitability push towards lesser dividends to the shareholders and less bonus to employees. Not only the negatives sides but also there are positive sides of new directives. Recently the problems of banks are increasing operating cost and decreasing loan amount resulting decrease in profits of the banks but it shows it is only for short time there because the directives are more effective to protect the banks from bad loans, which protect the banks from bankruptcy as well as protection of deposits of depositors. Increase in capital adequacy 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 (2004) conducted a thesis “A study on credit practices of joint venture commercial Ltd. And Nepal Bangladesh Bank Ltd.” banks with reference to Nepal SBI Bank The basic objectives of this thesis are:

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

The major findings of this study are

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

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

- Among the various measurement of profitability ratio return on equity (ROE) and earnings per share (EPS) reflects the relative measure of profitability. The performance of NBBL is better than NSBL. Return on equity and earnings per share of NBBL are higher than that of NSBL in all years.
- Co-efficient of correlation between deposit and loans & advances of both banks 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 NSBL is negative as other variables like increase in interest suspense and loan loss provision affects net profit. Coefficient of correlation between net profit and loans & advances of NBBL is positive. This study is mainly focused on the lending practices and the volume of credit in comparison to the deposits. Therefore, the major gap in this research is study of the risk involved in the lending practices or the study of credit risk. Therefore, further study on the risk involved in creating credit can be made.

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

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

- To study and the impact of loan loss provision on the profitability of the commercial banks.

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

Shrestha (2007) on “A study of Credit risk management of Nepalese commercial banks comparative study between kumari bank ltd. and machhapuchchhre bank ltd.” has made study about a part of credit risk associated with those banks the study aims to examine and analyze how the selected commercial Banks have managed mainly credit risk in this competitive Nepalese banking industry. The specific objectives of this study are:

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

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

- The major problems in credit risk are related to the broad areas of concentrations, credit processing, and market- and liquidity-sensitive credit exposures. From the analysis of primary data, it is found that the majority of the respondents of both banks have favored with the bank's single sector, which is up to 10 % of total loan. However, the sector wise lending analysis portrays that KBL and MBL have extended up to 19.88 % and 30.12% of loan in a single sector respectively in FY 2005/06. Similarly, the exposure on the single sector of KBL and MBL exceeds 10 % of total

loan in 3 and 5 sectors respectively. The single sector loan to core capital shows that the ratio crossed 100% in 2 sectors of both KBL and MBL. In regard to concentration risk, KBL has more risk in manufacturing and others sector where as MBL has more risk on manufacturing and Whole seller and sectors as the single sector credit to core capital ratio in these sectors is more than 100 %. MBL has very high loan concentration on manufacturing sector of 199.35% of the core capital. From the personal interview of the key respondents it was found that both banks have been extending credit in those highly concentrated sectors after getting approval from the board of director. This clarifies that concentration risk is the main source of credit risk for KBL and MBL.

- Similarly, lack of systematic and thorough credit processing is also the major source of credit risk in these banks. The problems in credit processing include lack of thorough credit assessment, absence of testing and validation of new lending techniques, subjective decision-making by senior management, lack of effective credit review process, failure to monitor borrowers or collateral values, and failure of banks to take sufficient account of business cycle effects etc. Likewise the market-sensitive and Liquidity-sensitive exposures also increase the credit risk of these banks. Similarly, it is found that both banks have their own rating system of the credit client and the sectors. Both banks have ranked 1st to the manufacturing sector where as the Agriculture sector has been ranked the last on the basis of priority. KBL has chosen others sector and real estate business in 2nd and 3rd position respectively, where as the MBL has just opposite preference in these sectors.
- Likewise, KBL has ranked Character, Collateral and Capacity of borrower first, second and third criterion for granting credit where as MBL ranked Character, Capacity and Capital first, second and third priority respectively. The hypothesis test on the preference of the bank s staff also proves that there is no significant difference between observed and expected frequency of ranking.
- From the analysis of lending against various collaterals, it has been found that both the banks have lent highest amount of loan against the movable/ immovable property. The average lending over 5 years period of KBL and MBL against movable/

immovable property is Rs. 2,987 million and 2,673 million respectively. Similarly, the lending against other securities (i.e. other than prescribed by NRB) is second position for both banks, whereas the lending against guarantee of local banks and finance companies is in third position. However, MBL has also granted loan without any collateral. The average amount of loan without collateral is Rs. 3 million annually, which is in the 6th place on ranking. On the contrary, KBL has not granted any loan without backing any collateral.

Sharma (2011) in her thesis entitled "Comparative Risk Management of Nepal Investment Bank Limited and Nabil Bank Limited" has made study about a part of risk associated with those banks the study aims to examine and analyze how the selected commercial Banks have managed risk in this competitive Nepalese banking industry. The specific objectives of this study are:

- To analyze Credit Risk, Interest Risk and Liquidity Risk of the Nabil Bank Limited and Nepal Investment Bank Limited.
- To analyze the risk management system of NIBL and NABIL in reference to NRB guidelines.
- To analyze the recommendations and suggestions for the study.

The major finding in his study was that:

- The NIBL has the highest portion of the loan in total asset than NABIL Bank. He concludes that the NIBL is in increasing trend where as NABIL has fluctuating trend.
- The NIBL has the highest CD ratio than NABIL. This implies that NIBL has utilized higher portion of deposit than that of NABIL.
- Similarly NABIL has higher non-performing Loan to total loans ratio than NABIL. It reveals that NIBL has more credit risk than NABIL.
- The loan loss provision to total loan ratio of NIBL is higher than NABIL. The higher percent of LLP of NIBL indicates that the bank has higher amount of non-performing loan than NABIL.
- The liquidity risk is one of the market risks as the market determines the liquidity of

the asset. The current liquidity position of NIBL and NABIL has been ascertained. NIBL has higher cash and bank balance to total assets ratio than NABIL. This ratio indicates that NIBL has kept more liquid asset in its asset portfolio than NABIL, which signifies the lower liquidity risk.

- Likewise cash reserve ratio of NIBL has higher ratio than NABIL. It shows that NIBL has maintained higher amount of liquidity NRB than NABIL.
- The NIBL has higher interest expenses to total expenses ratio than NABIL. It means the bank is paying high amount of interest to the depositors.
- The NIBL has higher net interest margin than NABIL. there is a change in interest rate on Rate Sensitive Asset and Liabilities, NIBL will earn more profit than NABIL

2.4 Research Gap

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

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

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

Research is the process of a systematic and in-depth study or search of any particular topic, subject or area of investigation backed by the collection, complication, presentation and interpretation of the relevant details or data. It is a careful search or inquiry into any subject matter, which is an endeavourer to discover or find out valuable facts, which will be use full for further application or utilization. The research that involved the discovery of new techniques, a modification of old concepts or a knocking off an existing theories, concepts and techniques, it may develop a hypothesis and test it b y establishing relationship between different variables and identify the means for problem solving. Research methodology describes the methods and process applied in the entire aspect of the study. The main objective of this research is to measure the credit risk of the selected commercial banks and to study the various management techniques and principles used by the Nepalese commercial banks to manage credit risk. Thus, this chapter consists of the research methodology applied in the study for the fulfillment of the stated objectives. Thus the overall approach to the research is presented in this chapter. This chapter consists of research design, sample size and selection process, data collection procedure and data procession and presentation techniques and tools.

3.2 Research Design

Research design means defining procedures and techniques which guide to study and propound ways for research work. It is an analytical as well as descriptive approach to achieve the objectives. It is the arrangement of condition for collection and analysis of data relevance to the study purpose with economy in procedure. In order to make type of research, this fulfills the objectives of the stud y. The study is the blend of descriptive and analytical type of research. Historical data are used to identify and analyze the credit risk of a bank in the past period. Similarly, management system, organizational structure and

policies for mitigating the credit risk and the credit risk management procedures have been presented in descriptive form so as to identify the current status from which pitfalls can be identified. From collection of past data and information from key informants, the credit risk management system has been analyzed and recommendations have been made for improving the credit risk management of banks. Since only two banks have been selected for the study, this study is a comparative study between these two banks in credit risk and their management system.

3.3 Research Population and Sample

The large group about which the generalization is made is called the population under study, or the universe and small portion on which the study is made is called the sample of the study.

Research population would be all banks and financial institutions of Nepal. Due to various circumstances it would not be possible to attempt all the number of research population regarding in this dissertation. To, convenient the research, only Machhapuchchhre Bank Ltd and Kumari Bank Ltd has been taken and a comparative study is made and considered for the research purpose. Being MBL and KBL a same entrant banks and possess similar characteristics, I chose to put forward my research on these banks. Also, these both banks are facing similar credit risk problems and have been under pressure to continuously increasing its credit standard. Hence, these banks have been chosen as a sample to better examine where the problem is and the measures to overcome those lax in credit standards. Hence, Random sampling technique is used.

3.4 Source and Type of Data

Data and information are the foundation of any study. Data may be obtained from several sources; it is not easy to list them in detail. Each research project has its own data needs and data sources. For this study, Secondary data have been taken mainly from personal interview, annual reports, auditor's reports, balance sheet, P/L account, cost detail sheet, previous thesis and other relevant published and unpublished documents related to

Machhapuchchhre Bank Ltd. and Kumari Bank Ltd. For further information informal interviews were conducted with the concern authority.

3.5 Method of Analysis & Presentation

Analysis and presentation of the data is the core of each and every research work. In order to get the concrete results from this research, data are analyzed by using different types of tools. Basically, following two techniques are used to explain the collected data.

3.5.1 Statistical Tools:

The relationship between two or more variables can be measured by using statistical tools. In this study the following statistical tools are used.

Bar Diagram:

Bar diagram are one of the easiest and the most commonly used methods of presenting the numerical data. They present the data by means of bars, or rectangles of equal width. The length of the bars represents the given figures and the width may be of any size.

Mean:

The sum of the entire observations divided by the number of observations is called Mean. In such cases all the items are equally important. It is usually denoted by \bar{X} . It is defined by the following formula:

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$$

Where,

$\sum X$ = the sum of observations

N = no. of observation

Standard Deviation (S.D.)

The standard deviation is defined as the positive root of the mean of the squared deviations from their mean of a set of values. It is also known as Root Mean Square Deviation. It is usually denoted by the Greek letter σ (Small Sigma). The SD is calculated by the following formula:

$$SD = \sqrt{\frac{\sum X^2}{N} - \left(\frac{\sum X}{N}\right)^2}$$

Coefficient of Variation (CV):

The relative measure of dispersion based on SD is called coefficient of SD. Thus,

$$\text{Coefficient of SD} = \frac{\sigma}{\bar{X}}$$

100 times coefficient of SD is called coefficient of variation. It is denoted by C.V. thus,

$$CV = \frac{\sigma}{\bar{X}} \times 100$$

3.5.2 Financial Tools:

Ratio Analysis

In this study, various ratios have been used as per requirement. The major ratios used in this study include:

- Total Loans & Advances to Total Deposit. (Credit to Deposit Ratio)
- Capital Adequacy Ratio (Basel II)
- Non-Performing Loan to Total Loans and advances Ratio
- Loan Loss Provision to Total Loans and Advances Ratio
- Security wise Classification of Total Loans and Advances

CHAPTER- IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter represents the data collected from various sources and also presents and analyzes them to measure the various dimensions of the problems of the study. This is the section where, the filtered data are presented and analyzed. This is one of the major chapters of this study because it includes detail analysis and interpretation of data from which concrete result can be obtained. This chapter consists of various calculation made for the analysis of credit risks of the sample banks. To make our study effective, precise and easily understand able, this chapter is categorized in three parts: presentation analysis and interpretation.

4.2. Ratio Analysis

4.2.1 Total Loans & Advances to Total Deposit. (Credit to Deposit Ratio)

As we are witnessing a very large lending made by banks in past few years that has created substantial liquidity crisis in market, NRB has been implementing CD Ratio to check this. As per NRB this ratio must be kept 80% or below. Many banks and financial institutions were lending above their deposit base that created serious liquidity problems in the market.

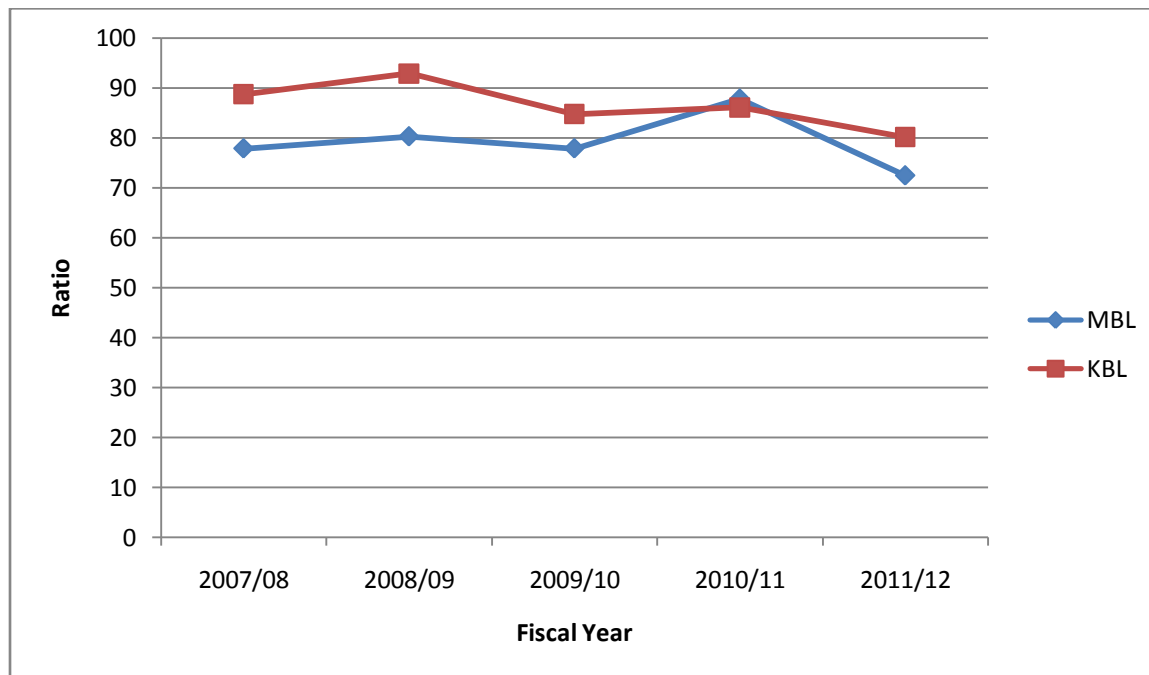
Table 4.1
Total Loans & Advances to Total Deposit

(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Loans & Advance	Total Deposit	Ratio (%)	Total Loans & Advance	Total Deposit	Ratio (%)
2007/08	8,642	11,102	77.84	11,335	12,774	88.73
2008/09	12,516	15,597	80.25	14,593	15,710	92.89
2009/10	14,290	18,356	77.85	14,766	17,432	84.71
2010/11	14,409	16,410	87.81	14,626	16986	86.11
2011/12	15,603	21546	72.42	17,614	21985	80.12
		Mean	79.23			86.51
		SD	5.59			4.66

Source: Annual Reports

Figure 4.1
Total Loans & Advances to Total Deposit



As per the above table and figure we can see that MBL has better maintain the CD ration. But it should be noted that while calculating CD ratio Shareholders equity is added to deposit to yield true CD ratio as per the directive of NRB 2070. From above figure we can see MBL has maintain better liquidity position to that of KBL but if we consider Shareholders equity then MBL will have excess liquidity which has substantial effect on its profitability. Thus, from above we can say that MBL has maintained high liquidity and KBL has made efficient use of available resources.

4.2.2 Capital Adequacy Ratio

Capital Adequacy is to maintain sufficient capital fund in consideration with Total risk weighted Exposure. We know,

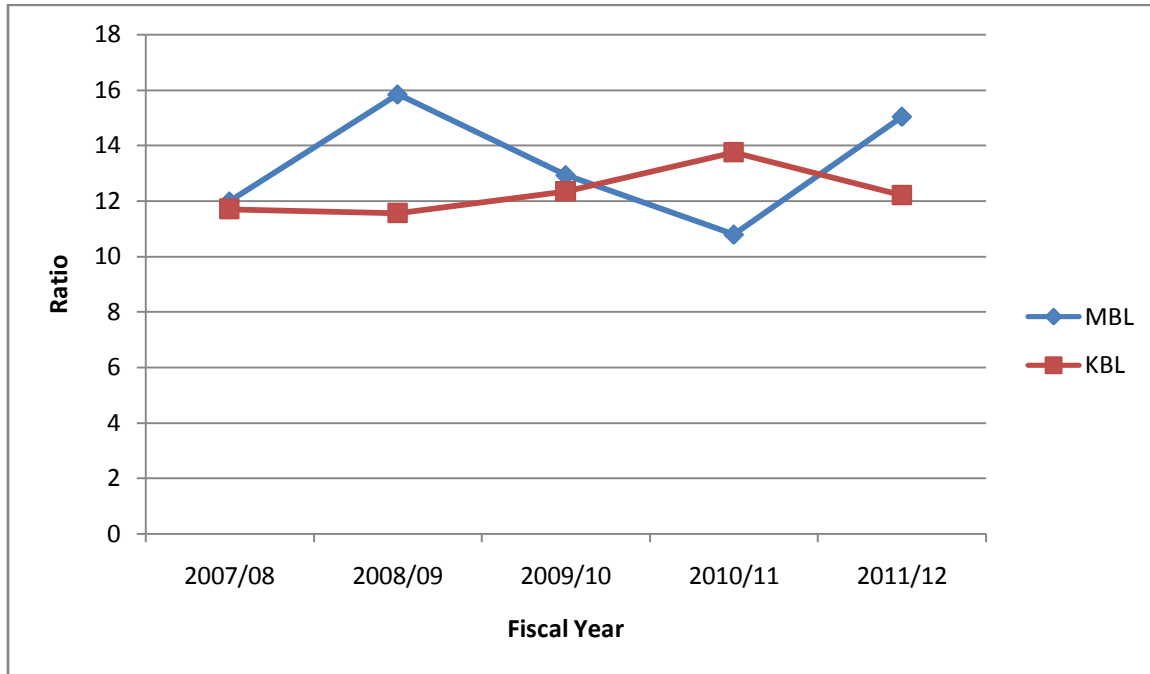
$$\text{Minimum Capital Fund Required} = \frac{\text{Total Capitaal Fund}}{\text{Total Risk Weit hted Exposure}}$$

Table 4.2
Capital Adequacy Ratio

Fiscal Year	MBL			KBL		
	Total Risk Weighted Exposure	Total Capital Fund	Ratio (%)	Total Risk Weighted Exposure	Total Capital Fund	Ratio (%)
2007/08	9200	1102	11.98	16043	1878	11.71
2008/09	11435	1811	15.84	17743	2051	11.56
2009/10	15308	1979	12.93	17221	2125	12.34
2010/11	17616	1900	10.79	17858	2458	13.76
2011/12	18599	2797	15.04	20936	2554	12.20
		Mean	13.31			12.31
		SD	2.10			0.87

Source: Annual Reports

Figure 4.2
Capital Adequacy Ratio



From above table, it is obvious that both banks have been meeting minimum required capital Adequacy. However, as we discussed earlier that banks and financial institutions are only meeting minimum standards, if they truly want to minimize risk and have sound financials then they have to go beyond the expectations of the NRB. In above figure, we can see both banks ratio are hovering around the required minimum criteria posed by NRB i.e. 10%. MBL seems to have maintained pretty good ratio throughout the period than that of KBL. It has maximum ratio 15.84% in fiscal year 2008/09 and KBL has maximum 13.76 in 2010/11. Similarly, it has maintained minimum ratio 10.79% in fiscal year 2010/11 and KBL has 11.56% of in fiscal year 2008/09. Consequently MBL has maximum ratio in 2008/09 but KBL has minimum ratio. Similarly KBL has maximum ratio in 2010/11 but MBL has minimum ratio. Standard deviation of MBL has 2.10 and KBL has 0.87

The total risk weighted exposure is calculated as below:

Calculation of Capital Adequacy

Risk weighted exposure under each 11 categories of Credit Risk

S N	Particular	Risk Weight
1	Claims on government and Central Bank	0-150%
2	Claims in other officer entities	0-150%
3	Claims on bank	20-150%
4	Claims on Corporate and Securities Firms	20-150%
5	Regulatory Retail Portfolio	75%
6	Claims secured by Residential Properties	60%
7	Claims Secured by residential Properties	100%
8	Past due Claims	150%
9	High Risk Claims	150%
10	Other Assets	0-100%
11	Off Balance Sheet Exposures	0-100%
Total		Sum (1:11)

Total Risk Weighted Exposure Calculation Table

S N	Particular	Risk Weight
1	Risk Weighted Exposure for Credit Risk	-
2	Risk Weighted Exposure for Operation Risk	-
3	Risk Weighted Exposure for Market Risk	-
4	Total Risk Weighted Exposures	Sum (1+2+3)
a	Add: 3% of the RWE due to non compliance to Disclosure Requirement	-
b	Additional to RWE as per supervisory review (3%)	-
c	Add: % of total Deposit due to Insufficient liquid Assets	-
5	Total Risk Weighted Exposures	Sum(4+a+b+c)
6	Total Capital Fund	-
7	Capital Fund to Risk Weighted Exposure	Divide (6/5)
Total		

*Three Years Basel Classification Shown in Appendix

4.2.3 Non-Performing Loan to Total Loans and Advances Ratio

This ratio determines the proportion of non-performing loans in the total loan portfolio. As per Nepal Rastra Bank directives the loans falling under category of substandard, doubtful and bad loan are regarded as non performing loan. Higher the ratio implies the bad quality of assets of banks in the form of loans and advances. Hence the lower NPL to total credit ratio is preferred.

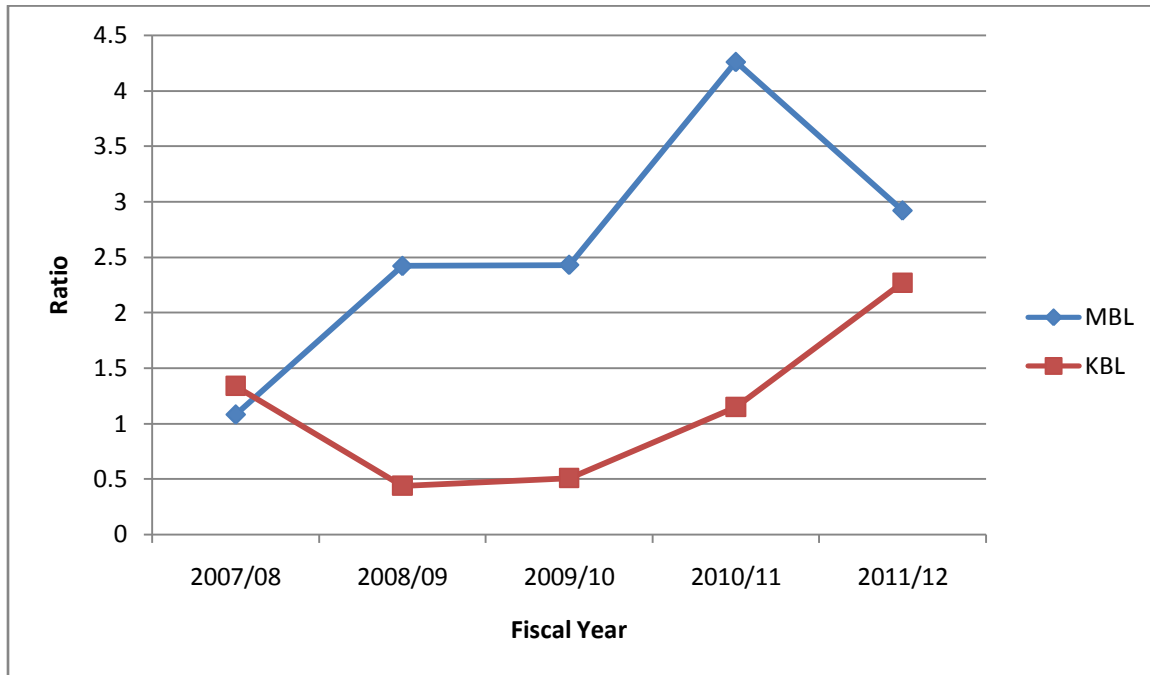
Table 4.3
Non-Performing Loan to Total Loans and Advances Ratio

Fiscal Year	MBL			KBL		
	NPL	Total Loans & Advance	Ratio (%)	NPL	Total Loans & Advance	Ratio (%)
2007/08	93	8,642	1.08	152	11,335	1.34
2008/09	303	12,516	2.42	64	14,593	0.44
2009/10	347	14,290	2.43	75	14,766	0.51
2010/11	614	14,409	4.26	168	14,626	1.15
2011/12	455	15,603	2.92	400	17,614	2.27
		Mean	2.62			1.14
		SD	1.14			0.74

Source: Annual Reports

Figure 4.3

Non-Performing Loan to Total Loans and Advances Ratio



From above figure and table it is clear that the Non Performing Loan to Total Loans and advances ratio of MBL is increasing ever year besides 2011/12. Likewise KBL has decreasing trend in first year after that it has increasing trend. From the above table KBL has minimum mean and standard deviation then MBL. This shows that performance of MBL is degrading each year. From above data it is clear that the borrowers of MBL have been defaulting each year. NPL of MBL has maximum increment by 77% in 2010/11 as 2009/10 which is the maximum ratio where as in the same year KBL has maximum ratio which is doubled in last year.

4.2.4 Loan Loss Provision to Total Loans and Advances Ratio

This ratio determines the proportion of provision held to non-performing of bank. This ratio measures up to what extent of risk inherent in NPL is covered by total loan loss provision. The higher the ratio, the better cushion that the bank provides for recovering from loss caused by NPL. Hence higher ratio signifies the better arrangement for the credit risk of a bank.

Table 4.4

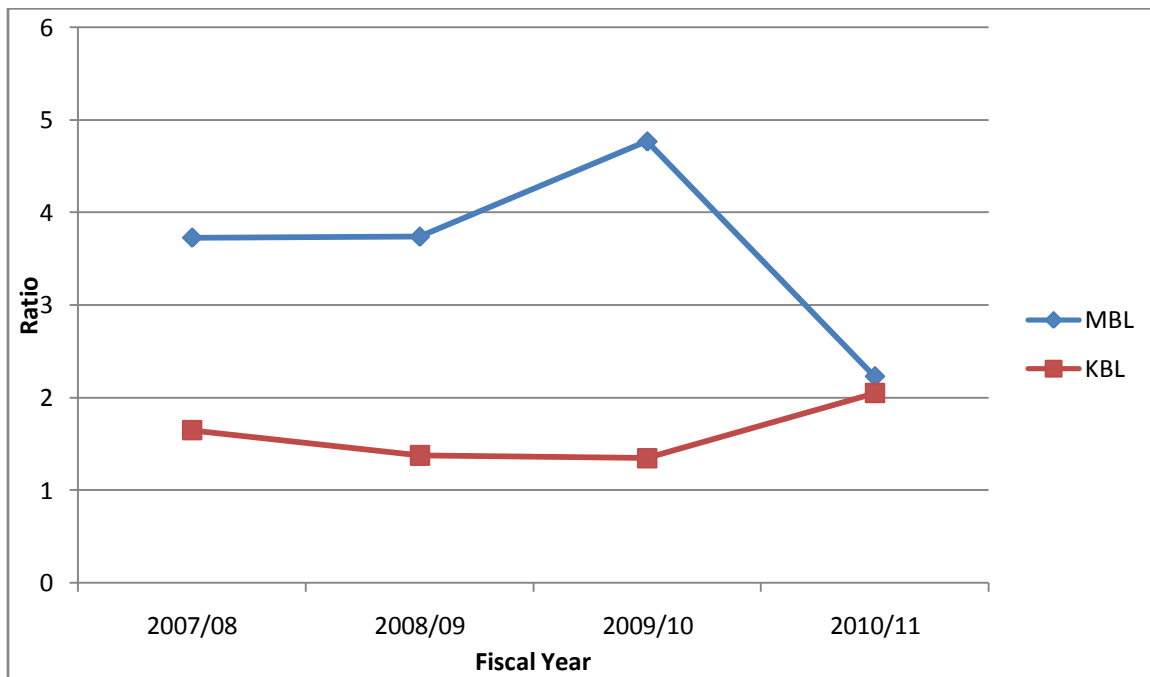
Loan Loss Provision to Total Loans and Advances Ratio

Fiscal Year	MBL			KBL		
	Loan Loss Provision	Total Loans & Advance	Ratio (%)	Loan Loss Provision	Total Loans & Advance	Ratio (%)
2007/08	322	8,642	3.73	187	11,335	1.65
2008/09	468	12,516	3.74	201	14,593	1.38
2009/10	682	14,290	4.77	200	14,766	1.35
2010/11	322	14,409	2.23	300	14,626	2.05
		Mean	3.50			1.84
		SD	0.94			0.59

Source: Annual Reports

Figure 4.4

Loan Loss Provision to Total Loans and Advances Ratio



From the above table and figure, we can see that MBL has been maintaining high provision for possible loan losses to that of Kumari bank Ltd. This does not mean that MBL is maintaining additional cushion for the possible losses, this argument is supported by the higher NPL in table 4.3. MBL is maintaining only required reserves made mandatory by NRB, no additional provision is made for future losses. Similar case is also for KBL. We can notice that MBL has its provision increasing over the years with due cushion for additional NPL. Both bank have maximum ratio in year 2011/12 and amount also. Likewise MBL has minimum ratio in 2010/11 and KBL has minimum ratio in 2009/10.

As we discussed earlier that all banks and financial institutions only meet the minimum criteria to make arrangement as directed by NRB directive 2070. Here if provision for possible loan loss had been made by keeping enough cushion then the banks would have been safer for next period and fiscal years but they do not do so, because if they make additional provision then their profit would be lessen. We are witnessing ever y banks and financial institutions are attempting to make larger profits by only meeting the minimum requirements. We even are witnessing the fact that even banks and financial institutions are providing additional loans to the borrower simply to avoid the required provision. This can create higher profit for that particular period but the profit is not sustainable one. Because one day the same customer is going to default and then the bank may suffer great loss. This situation is found in every banks and financial institutions.

4.2.5 Security wise Loan Classification

This analysis will help to identify the various types of securities on the basis of which loans have been provided b y KBL. This also assists to analyze the credit risk of a bank. As more liquid the collateral, low credit risk to the bank. Here, security wise lending includes 12 types of securities, including collateral less lending.

Table 4.5
Security wise Loan Classification of MBL

Particular	2007/8	2008/09	2009/10	2010/11	2011/12	Mean
A. Secured	8963	12984	14974	14731	16077	13,846.43
1. Against Securities of Movable/Immovable Assets	7880	12175	14216	13713	14885	12,573.80
2. Against Guarantee of Local Licensed Institution	57	188	236	33	250	152.80
3. Against Government Guarantee		52	130		176	119.33
4. Against Guarantee of International Rated Bank	-	-	-	-	-	-
5. Against Security of Export Documents	-	-	-	92	-	92.00
6. Against Security of Field Deposit Receipt (a + b)	242	286	133	452	537	330.00
a. Own FDR	4	19	28	357	472	176.00
b. FDR of Other Licensed Institution	238	267	105	95	65	154.00
7. Against Security of Government Bonds	-	-	-	130	-	130.00
8. Against Counter Guarantee	-	-		251	-	125.50
9. Against Personal Guarantee	98	99	119	32	34	76.40
10. Against Other Securities	686	184	140	28	195	246.60
B. Unsecured	-	-	-	-	-	-
Total	8963	12984	14974	14731	16077	13,846.43

Source: Annual Report

Figure 4.5
Security wise Loan Classification of MBL

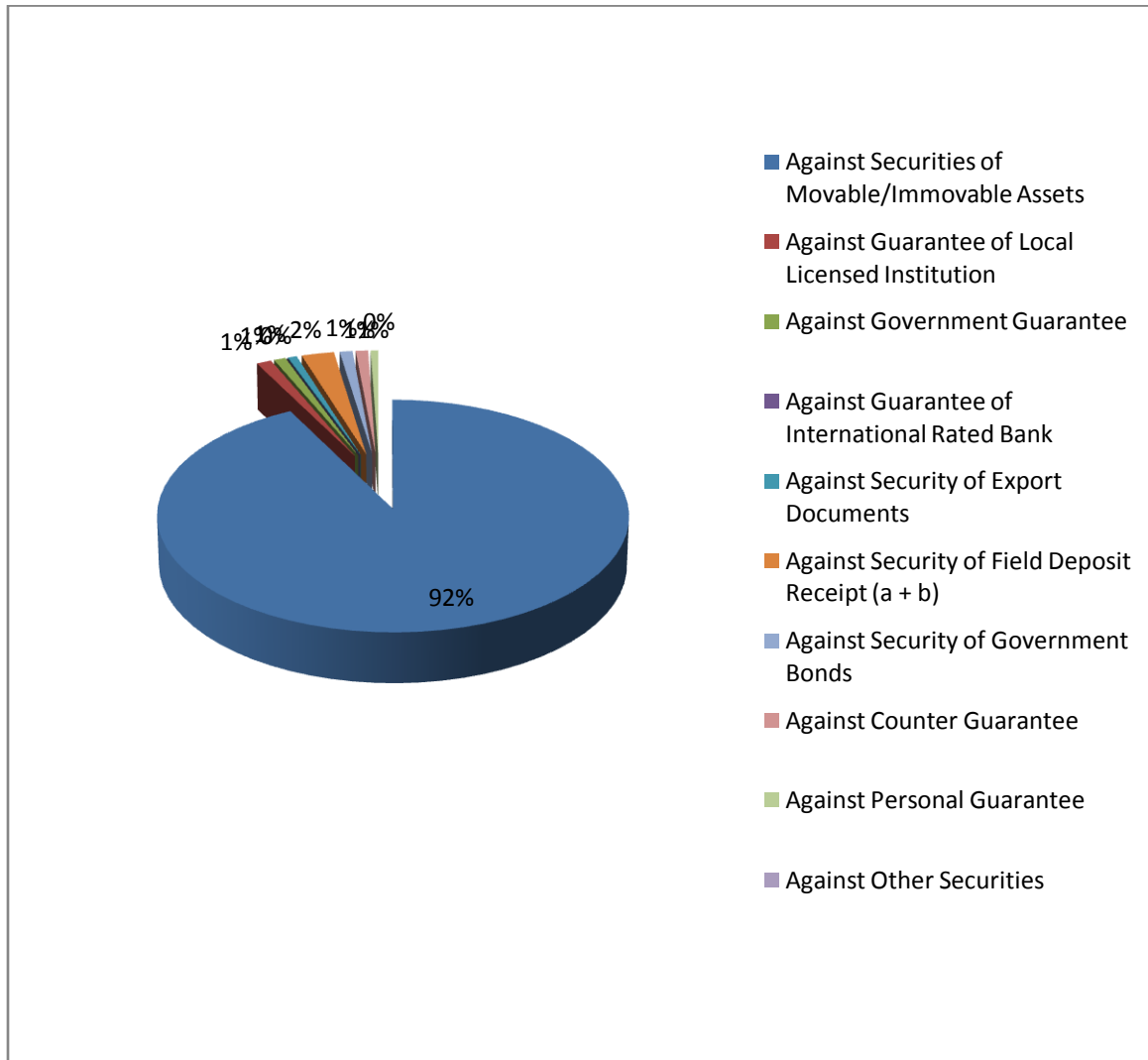
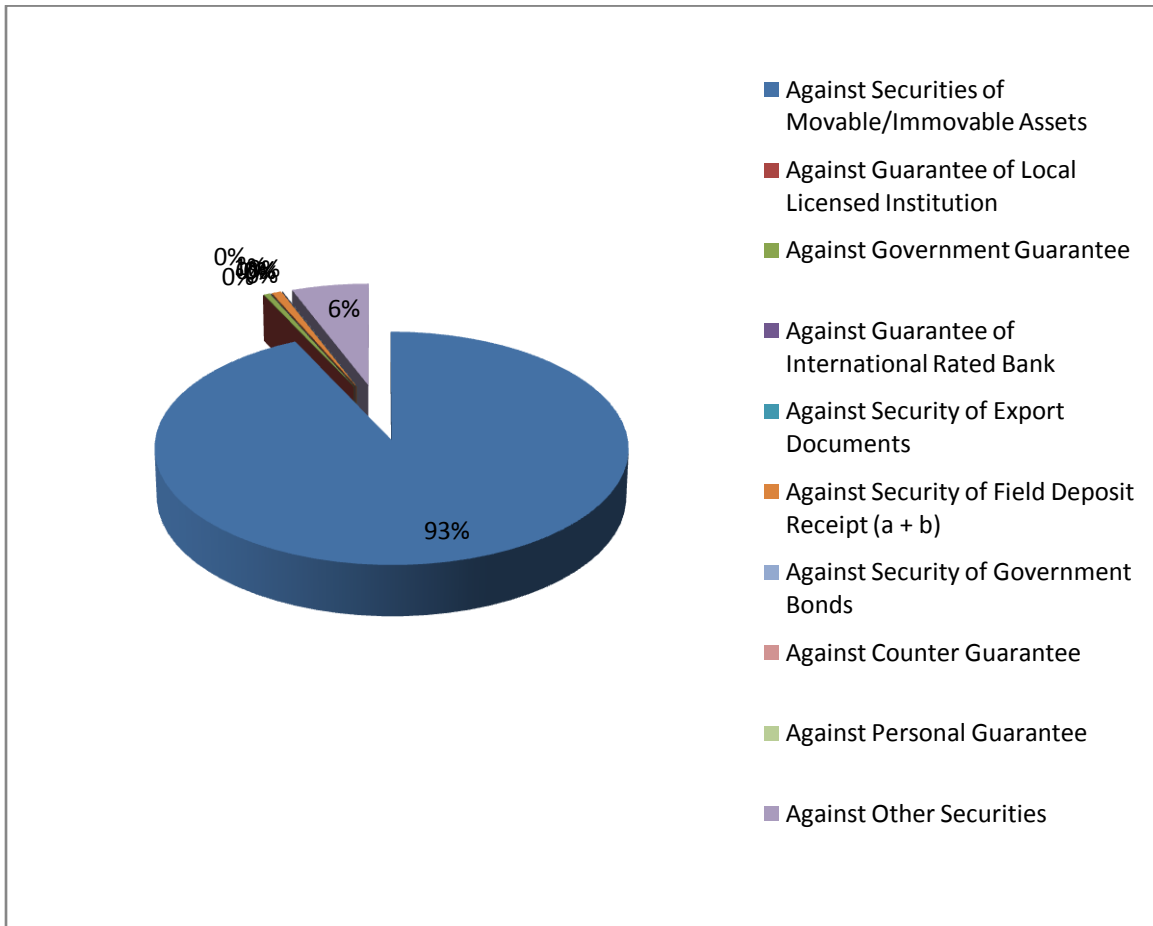


Table 4.6
Security wise Loan Classification of KBL

Particular	2007/8	2008/09	2009/10	2010/11	2011/12	Mean
A. Secured	11522	14796	765951	14926	18101	165,074.45
1. Against Securities of Movable/Immovable Assets	10565	13445	14966	14044	16866	13,977.20
2. Against Guarantee of Local Licensed Institution	-	-	-	-	-	-
3. Against Government Guarantee	-	-	-	147	147	73.50
4. Against Guarantee of International Rated Bank	-	-	-	-	-	-
5. Against Security of Export Documents	-	2	2	-	-	1.00
6. Against Security of Field Deposit Receipt (a + b)	113	56	53	103	230	111.00
a. Own FDR	7	3	53	103	230	79.20
b. FDR of Other Licensed Institution	106	53	-	-	-	39.75
7. Against Security of Government Bonds	-	-	7	-	-	1.75
8. Against Counter Guarantee	-	-	-	-	-	-
9. Against Personal Guarantee	-	-	-	-	-	-
10. Against Other Securities	844.00	1,293.00	751.00	632.00	858.00	875.60
B. Unsecured	-	-	-	-	-	-
Total	11522	14796	765951	14926	18101	15040.05

Source: Annual Report

Figure 4.6
Security wise Loan Classification of KBL



From above table 4.5 & 4.6 and figure 4.5 & 4.6, we can see MBL & KBL has extended its majority of loans and advances by keeping security of movable and immovable properties of mean Rs. 12,573.80 million and 13,977.20 million respectively. This indicates that both banks have given considerable concentration on adequately safeguarding the loans and advances extended by collateral. But this not means that the loans and advances extended shall perform well, this is only a collateral part, and a borrower can default despite of adequate and quality collateral. Moreover, the collateral may be unqualified and inadequate since only figure cannot summarize whole scenario. In addition to it, if a borrower fail to pay the interest and principal amount then pledged collateral must be auctioned, this may take plenty of time and non sellable of collateral still exists.

Lending against FDR has no risk and requires 0% risk according to the Basel II. Both banks have extended credit facility in this category. MBL has mean average lending of 176.00 million to that of 111.00 of KBL which is less than MBL. This portfolio shows better management of risk and mitigation of credit risk as well, since; no risk weight is assigned to this category. However, at current situation we can see many banks and financial institutions have very high liquidity problems. Thus, lending against security of FDR has witnessed threat as well.

Lending against sole personal guarantee is witnessed more in MBL but KBL has no lending against it. This has high risk since it does not assure on payment of accrued interest and principal on timely basis. Since, lending has been made on the basis of personal relationship and without pledging of collateral there is high chances of borrower defaulting. Hence, these loans must be timely monitored and controlled. From this point of view, MBL seems to have made very risky lending. Rs. 119 million (Year 2009/10) falls under threat and necessary provisioning arrangement is required.

Lending against other securities consists of shares pledged as security. As we are very much aware that investment in security is very risky. Hence, lending made on its basis is risky, proper timely monitoring pertaining to the changing prices in shares must be monitored and margin call shall be made accordingly. This claims high risk since market value of underlying assets can crash at any point of time. Thus these lending carries 150% weight age as per Basel III.

4.3 Major Findings of the Study

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

Credit risk is one of the most important risks that a manager should deal on. Dealing with it requires extensive knowledge and experiences. 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 accounts 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.

1. From the analysis from Credit to deposit ratio MBL seems to have maintain better liquidity position to that of KBL but if we consider Shareholders equity to deposit side to calculate CD ratio as per NRB directive then MBL will have excess liquidity which has substantial effect on its profitability. This problem is looked after in KBL. Thus, from above we can say that MBL has maintained high liquidity that may possess adverse effect in its profitability and KBL has made efficient use of available resources. But KBL has more than 80% CD ration which is higher than NRB Directive.
2. Capital Adequacy ratio is one of the major tools implemented by Basel III and same has been implemented here by NRB in order to minimize the possible credit risks. Both banks maintained required minimum ratios. They have only met the minimum criteria as prescribed by the NRB. Higher the capital adequacy ratio, higher comfortable zone is obtained for the banks and financial institutions. As this tool MBL has higher mean then KBL i.e. 13.31% and 12.31% respectively. In this period MBL has minimum ratio in 2010/11 i.e. 10.79% likewise KML has minimum ratio in 2008/09 i.e. 11.56%. MBL has more fluctuation then KBL.
3. Higher non performing loan of MBL indicates lower credibility of the borrowers. This means, there has been some inefficiency in lending, which has resulted in non-payment of interest and principal by the borrower. If this continues, survival of MBL comes into threat. In contrast to it, KBL's performance is found satisfactory since it has lower NPL as compared to MBL. MBL has maximum ratio in 2010/11 i.e. 4.26% and KBL has 2.27% in 2011/12.

4. Both banks have maintained required minimum provision as per the category of their landings. No additional provisions are created to mitigate future credit risk. Prudentially both banks has maintained sufficient provisions but we cannot make sure that the recovery of accrued interest and principal has been made by the cash deposit of the borrower, since we have been witnessing these settlements by additional loans provided to the customers. This is done to avoid accumulation of NPL and create additional provision that directly reduces the profitability of banks. Hence, they provide additional loans and settle past dues. Higher non performing loan creates higher Loan Loss Provision so that MBL has higher ratio then KBL. The highest ratio of MBL is 4.77% in 2009/10 likewise KBL is 2.76% in 2011/12
5. Most of the Loans and advances of both bank MBL and KBL has been secured with movable and immovable securities i.e. 92% and 93% respectively. This does not make sure in timely payment of accrued interest and principals. The basic rule in extending credit to borrower is the repayment capability. Lending against personal guarantee is observed in MBL which shows high risk lending arrangement. However, this is null in the whole year of KBL; MBL has extended credit to the tune of 119 million in this category which is 0.80% of total loans and advance in 2009/10. This makes MBL more risky to that of KBL.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATION

In this chapter we examine the processed data to come into summary, conclusions on the performance of the bank on an individual basis and put some recommendation for the subject bank in order to improve its weaknesses. This chapter is divided into summary, conclusions and recommendations.

5.1 Summary

As we all are aware that, banks and financial institutions are responsible for the overall development of the country. Banks and financial institutions, which collect the scattered small-small saving from nook and corner of the country and invest them to the needy one in productive sector thereby multiplying the economic reform. Credit risk being one of the major risks in banking sectors requires plenty of consciousness and pro activeness in lending. Thus, to make a comparative analysis of banking sector, 2 banks were taken as sample using judgmental sampling method. MBL and KBL have been taken for comparative study because of their similarities in terms of business size, date of establishment, capital size etc. Only secondary data have been used in this study.

Various credit risk mitigating and arising factors were studied. Appropriate statistical and financial tools have been applied to analyze the collected data. The data of five consecutive years of the two banks have been analyzed to meet the objective of the study. The major risk in MBL and KBL is associated with credit decision as the proportion of credit risk on total risk is high. The credit risk of these banks mainly arises due to non-payment of loan by borrowers, poor appraisal of borrower's financial condition and substandard collateral. Poor tracking of borrowers and improper diversification of lending across industries also result in higher credit risk in commercial banks. The major problems in credit risk can be categorized into three areas of concentration; credit processing, and market and liquidity-sensitive credit exposures.

Both banks have developed their own CPG (Credit Policy Guidelines) that direct their credit officers to comply as per the bank's policy. This brings uniformity and standard in the lending policy. In addition to it, they have separate risk management department, which constantly keeps on exercising to mitigate credit risk. However, this policy has been only transcribed in paper, had these been implemented in full capacity and understanding, there would not have been such major credit lax.

Increasing cost of fund has pressurized both banks to increase their interest rate on lending, this in turn has adverse effect on repayment capability of the banks and financial institutions. Every bank and financial institution have been vying for the same deposits, which created constant increase in the interest rate, this in turn increases the inflation of the nation. Moreover, both banks have been observed to have utilized the collected deposits on loans and advances only. Though, lending is the basic function of the banks, it is not the only function. We have witnessed investment in treasury and other debt instruments floated by government of Nepal. This is basically seen in Standard Chartered Bank. Almost investment and loans and advances are equal in this bank.

5.2 Conclusion

A better decision can lead a business towards a path of sustainable growth and success. A better management team with properly addressed duties and responsibilities to each department and its head can better perform and add up to a better decision. A company's shareholders must be separated with management team, since indulgence of a shareholder can harass sound and judgmental decision.

Majority of banks and financial institutions are now facing problems due to involvement of Executive Chairman, one who is also a shareholder and a holder of top position, favoring nepotism in granting loans and advances has created serious issues in present banking era.

Commercial banks are established with an objective to maximize the shareholders' value by performing the function of mobilizing the idle funds collected from the society to productive sector, which will help to achieve the economic development of a country.

Proper risk management is required to remain competitive in the market to achieve the

goals. With the increase in NPL, the loan loss provisioning will also increase simultaneously leading to decrease in profit. Thus banks and financial institutions must prepare for the worst scenario and maintain sufficient provision exceeding the required minimum criteria. This not only helps in hard time but also reduces the tax liability for the period.

Thus, 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.

Major lending to single sector is found in both banks; however, this is seriously ill for the health of banks and financial sectors. Other problems related to insufficient collateral, borrower's negative character and miss-utilization of credit must be frequently checked.

5.3 Recommendation

Based on the findings in chapter four and above conclusions the following recommendations have been put forward.

1. Firstly, Credit risk management is not a simple process. Thus, both banks, MBL and KBL, must update and maintain proper credit/lending policy. This must be prepared by professional bankers and scholars with substantial knowledge and experience in this field. The policy must be prudently and strictly followed by all the lending staffs. The policy must be reviewed and analyzed periodically. Addendums and amendments must be made over the time.
2. Following the normal guidelines of NRB and acting upon this also reduces many of the credit risk arising from borrower's defaulter, lack of proper credit appraisals, black listed borrowers, and willful defaulters. The over confidence in commercial banks regarding credit appraisal efficiency and negligence in taking information from Credit Information Bureau has caused many bad debts in the bank. Hence, the bank is recommended to follow the directives of NRB strictly and be more cautious and realistic while granting loans and advances. The major solution of reducing the risk is to avoid lending in the more risky area until the

- bank is fully satisfied regarding the future viability of the project. Although the government has established an office named 'Debt Recovery Tribunal' in order to help the banks for recovery of bad debts. An additional effort for establishment of 'Assets Management Company', which helps the banks in collecting their debts and improving their credit rating efficiency, should be initiated
3. Both banks must initiate to put forward their plans to invest in rural areas. This can be led by SME lending. These loans are relatively small in portfolio but have less risk of default. Hence these sectors must be given special priority by both banks and shall also be promoted by government and NRB to flow credit in the rural economy.
 4. The increasing non performing loan of MBL must be checked in time so that the bank can recover from being insolvent. Both positive and negative strategy must be initiated. Decreasing interest rate and providing subsidy on interest due can somehow facilitate and entice borrower to pay his loans. On the other hand taking action regarding recovery of loan such as auctioning and taking a sincere harsh step to recover loans must be taken soon. As compared to MBL, KBL has considerably low Non performing loans. If the bank has followed prudent banking practice this is a very good sign. But if not, this must be checked in time, because this can hamper the sustainability in the long run. Additional extra provisions must be created to that of required minimum criteria as required by NRB. This can help in upcoming difficult situation of both banks.
 5. Both banks must try to tap the untapped areas to accelerate the economic growth of those areas. This not only facilitates the new area, it also adds to the net profit of the banks. The rural economy has always been realizing the credit needs; the dominance of non-organized moneylender in this area has been prevailing. To compromise between the liquidity and credit need of rural economy, the bank is highly recommended to expand its credit in this area. This helps minimizing idle fund in business and at the same time contributes to the national economy.
 6. The regulatory authority must come up with new and additional regulating circulars that bind the banks and FI's regarding credit risks and safeguard the hard earning of deposit holders.

7. Being an investor and depositors one should must analyze the bank and FI's past transactions, financial before depositing. We are aware that every deposit holder is attractive towards lucrative investment giving them higher return. But as an active investor and citizen we must analyze various issues and consequences of this. As a result of higher cost of fund, the banks and FI's are compelled to invest collected high cost deposit into lending at high rate and risk y assets. This in turn ex poses threat to the deposit of the depositors. In addition to it, the high rate on lending in turn increases inflation and this burden is ultimately going to be borne by the individual citizen (Depositors). Hence, we must check the credibility, financials, management teams etc. before depositing funds. Banks and FI's having low cost of fund, experienced and professional management teams can better safeguard our life time savings.

BIBLIOGRAPHY

Books:

Bhattacharya, H. (1998). *Banking Strategy, Credit Appraisal and Lending Decisions- A Risk-Return Framework. (1st ed.)*. Oxford University Press,: New Delhi.

Gupta, S.P. (1989). *Statistical Methods. (24th ed.)* Sultan Chand and Sons Publishers: New Delhi.

Halter, O. G. (1999). *Banks Investments and Funds Management. (2nd ed.)* Macmillan India Ltd: India.

Khubchandani, B.S. (2000). *Practice and Law of Banking; First Edition*. Macmillan India Ltd: India.

Kothari, C R. (1994). *Quantitative Techniques. (3rd Revised Edition)*. Vikas Publishing House Pvt Ltd: New Delhi.

Pandey, I.M. (2000). *Financial Management ; Eighth Edition*. Vikas Publishing House Pvt. Ltd: New Delhi.

Rao, B.R. (1984). *Current Trends in Indian Banking* Deep and Deep Publications: New Delhi.

Robinson, R.I. (1962). *The Management of Bank Funds , (2nd ed.)* McGraw-Hill Book Company Inc: New York.

Ross, P.S. (2000). *Commercial Bank Management* Irwin McGraw-Hill, New Delhi.

Sharpe, W.F., Alexander, G.J., & Bailey, J.V. (2000). *Investments; (5th ed.)*. Prentice Hall of India Pvt Ltd: India.

Shekher, K.C. & Shekhar, L. (2000). *Banking Theory and Practice. (18th Revised ed.)*. Vikas Publishing House Pvt. Ltd: India.

Singh, S.P. & Singh, S. (1983). *Financial Analysis for Credit Managements in Banks* Vikas Publishing House Pvt. Ltd: New Delhi.

Thapa, K. (2002). *A Practice Book of Business Finance* Asmita Books Publishers and Distributors: Kathmandu.

Timilsina, Y. (2053 BS). *Banking Business in Nepal. (3rd ed.)* Ratna Pustak Bhandar: Kathmandu.

VanHorne, J.C. (1976). *Financial Management Policy* Prentice Hall of India: New Delhi.

Articles & Journals

Poudel, Ravi Prakash Sharma (2012), *"The Impact of Credit Risk Management on Financial Performance of Commercial Banks in Nepal"* International Journal of Arts and Commerce: University of New England

MBL & KBL. Annual Report. 2007/08 to 2011/12: Kathmandu

Nepal Rastra Bank. Licensing Policy for Banks and Financial Institutions: Kathmandu.

NRB Unified Directive of Nepal Rastra Bank , 2070: Kathmandu

NRB: Banking and Financial Statistics No. 45 Bank and Financial Institutions Regulation Department, NRB, Mid July 2010: Kathmandu

NRB: Nepal Rastra Bank Samachar, Barsikotsab Bisesanka: NRB, Kathmandu.

A Comparative Analysis of Commercial Banks: Investment Management Services

Thesis:

Hari Sharma (2011) *A Comparative Risk Management of Nepal Investment Bank Limited and Nabil Bank Limited*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Dhakal, M.N. (2011). *A Study on Credit Risk Management of Standard Chartered Bank (SCB) and Rastriya Banijya Bank (RBB)*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Khadgi, R. (2010). *A Study on Credit Risk Management of Nepal Investment bank Ltd*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Khadka, A. (2002). *A Comparative Study on Investment Policy of Commercial Banks*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Maharjan, S. (2010). *Core Risk in Banking. CRM*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Pandey, S. (2002). *Nepal Rastra Bank directives-Their Implementation and Impact on Commercial Banks, A Case Study of Himalayan Bank Limited*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Regmi, K (2009). *A Study on Credit Risk*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Sapkota, U.P. (2001). *Fund Mobilizing Policies of Standard Chartered Bank Nepal Ltd in Comparison to Nepal Bangladesh Bank Ltd and Himalayan Bank Ltd* An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Sharma, R.P. (2002). *Priority Sector Investment of Commercial Banks in Nepal* An Unpublished Master's Degree Thesis, Submitted to Faculty of Management

Tiwari D. N. (2006). *A Study on Credit Management of Himalayan Bank Ltd*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management Shanker Dev Campus T.U.

Website

www.nrb.com.org

www.nepalstock.com

www.kumaribank.com

www.machbank.com

www.worldbank.org

www.nepalsharemarket.com

www.rbb.com.np

www.wikipedia.com

www.worldbank.org