

CREDIT RISK MANAGEMENT AND CORPORATE GOVERNANCE

**(With Special reference to Machhapuchchhre Bank Ltd. and
Kumari Bank Ltd.)**

A THESIS

Submitted by:

ANITA SHARMA

Global College of Management, Kathmandu

Symbol No: 3560001/67

T.U. Registration No: 7-2-356-4-2005

Submitted to:

Office of the Dean

Faculty of Management

Tribhuvan University, Kirtipur, Kathmandu, Nepal

*In partial fulfillment of the requirements for the degree of
Master of Business Studies (M.B.S.)*

Mid-Baneshwor, Kathmandu

August, 2013

RECOMMENDATION

This is to certify that the thesis

Submitted by:

Anita Sharma

Entitled:

CREDIT RISK MANAGEMENT AND CORPORATE GOVERNANCE

(With Special Reference to Machhapuchhre 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.*

.....
Prof. Dr. Puskar Bajracharya
(Head of Research Department)

.....
Santosh Mainali
(Thesis Supervisor)

.....
Dr. Khagendra Pd. Ojha
(Principal)

Date:

VIVA-VOCE SHEET

We have conducted the viva-voce of the thesis presented

By:

Anita Sharma

Entitled:

CREDIT RISK MANAGEMENT AND CORPORATE GOVERNANCE

(With Special Reference to Machhapuchhre 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)*

Vive-Voce Committee

Principal

Dr. Khagendra Pd. Ojha :

Member (Thesis Supervisor)

Santosh Mainali :

Member (External Expert)

Date:

DECLARATION

I hereby declare that the work reported in this thesis entitled **CREDIT RISK MANAGEMENT AND CORPORATE GOVERNANCE** (*With Special Reference to Machhapuchhre Bank Ltd. And Kumari Bank Ltd.*), submitted to Research Department of Global College of Management is my original work carried out for the partial fulfillment of the requirements for the Masters of Business Studies (MBS) under the supervision of **Mr. Santosh Mainali**, Global College of Management.

.....

Anita Sharma

Global College of Management

Symbol No: 3560001/67

T.U. Regd No: 7-2-356-4-2005

Date:

ACKNOWLEDGEMENT

The thesis on “**CREDIT RISK MANAGEMENT AND CORPORATE GOVERNANCE** (*With Special Reference to Machhapuchhre Bank Ltd. And Kumari Bank Ltd.*),” has been prepared for the partial fulfillment of the requirement for Master Degree in Business Studies. It is really an appreciable curriculum of T.U. because it helps the students to express their theoretical concept achieved during the study period into the practical field.

I would like to express my deep gratitude to my thesis supervisor Mr. Santosh Mainali, Global College of Management, under whose guidance, suggestions and timely supervision despite of his busy schedule, I got the opportunity to perform this research. My special thanks also go to Prof. Prem Raj Pant, Global College of Management for his valuable suggestions for completing my thesis. I am also grateful to all the other personnel of Global College of Management for their kind coordination while performing my thesis work.

I am very much obliged to the staffs of Machhapuchhre Bank Ltd. and Kumari Bank Ltd for their supportive help in completing this study by providing data, reports and much more useful information without which this research would not have been at this stage.

My warmest thanks go to my father, Mr. Megh Nath Sharma, my mother, Mrs. Meena Sharma and hearty thanks to my dear husband Mr. Hemanta Acharya for his graceful support and all of my family members and friends for their inspiration and cooperation during each and every step of thesis writing encouragement for the completion of this thesis.

Anita Sharma

Global College of Management

TABLE OF CONTENTS

Recommendation	
Viva Voce Sheet	
Declaration	
Acknowledgement	
Table of Contents	
List of Tables	
List of Figures	
Abbreviations	
	Page No.
CHAPTER – I	INTRODUCTION
1.1 Background of the study	1
1.1.1 Banking History & Banking System in Nepal	2
1.1.2 Nepalese Financial System	3
1.2 Risks in the Banks	4
1.2.1 Assessing Credit Risk	5
1.2.2 Risk Management Policies and Procedures	8
1.2.3 Credit Risk Mitigation	8
1.3 Governance in the Banks	9
1.4 Credit Risk Management and Corporate Governance in Nepalese Banks	9
1.5 Statement of the Problem	10
1.6 Objectives of the Study	13
1.7 Significance of the Study	14
1.8 Limitations of the Study	16
1.9 Organization of the Study	17
CHAPTER – II	REVIEW OF LITERATURE
2.1 Meaning of Credit	18
2.1.1 Meaning of Risk	18
2.1.2 Meaning of Risk Management	19
2.1.3 Types of Risk Faced by Commercial Banks	20

2.1.4 Credit Risk Management	25
2.1.5 Credit Risk Governance	26
2.2 Review of Related Literature	27
2.2.1 Review of Basel II (2007) Related to Credit Risk	27
2.2.2 Review of Nepal Rastra Bank Unified Directive 2068 related to Credit Risk	28
2.2.2.1 Directive No. 1-Provisions Relating to Capital Adequacy Ratio	29
2.2.2.2 Directive No. 2-Provisions Relating to Classification of Loans/Advances and Loan Losses	33
2.2.2.3 Directive No. 3- Provisions Relating to Single Borrower (Obligor) and Limitation of the Sectoral Credit and Facilities	36
2.2.2.4 Directive No. -6 Provisions Relating to Good Corporate Governance	38
2.2.2.5 Directive No. -11 Provisions Relating to Consortium Financing	40
2.2.2.6 Directive No. 12 Provisions Relating to Credit Information and Blacklisting	40
2.2.2.7 Directive No. 17 Provisions Relating to Lending to Deprived Sector	41
2.2.3 Corporate Governance	41
2.2.3.1 Significance of Corporate Governance in Banking Sector	43
2.2.3.2 Principles of Corporate Governance in Banking Sector	44
2.2.4 Existing Laws and Regulation	45
2.2.4.1 Major Provision of Banks and Financial Institutions Act 2063 related to Corporate Governance	45
2.2.4.2 Major Provision of Company Act 2063 related to Corporate Governance	46
2.2.5 Empirical Findings	47
2.2.6 Review of Related Unpublished Thesis	54
2.3 Research Gap	57
 CHAPTER – III RESEARCH METHODOLOGY	
3.1 Research Design	58
3.2 Population and Sampling	58

3.3 Sources of Data	59
3.4 Data collection Procedure	59
3.5 Profile of Sample Banks	60
3.5.1 Brief Introduction of Machhapuchhre Bank Ltd. (MBL)	60
3.5.2 Brief Introduction of Kumari Bank Ltd. (KBL)	61
3.6 Data Processing & Method of Data Analysis	63

CHAPTER – IV DATA RESENTATION AND ANALYSIS

4.1 Comparative Analysis of Credit Risk	69
4.1.1 Credit to Deposit Ratio (C/D Ratio)	69
4.1.2 Total Loans and Advances to Total Assets Ratio	71
4.1.3 Total Non-Performing (NPL) Loan to Total Loans and Advances	73
4.1.4 Total Loan Loss Provision (LLP) to Non-Performing Loan (NPL)	74
4.1.5 Total Loan Loss Provision (LLP) to Loans and Advances ratio	76
4.1.6 Total Capital Fund to Risk Weighted Assets Ratio (Capital Adequacy Ratio- Basel II)	78
4.1.7 Core Capital (Tier 1) to Risk Weighted Asset (RWA) Ratio	80
4.1.8 Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio	82
4.1.9 Sector Wise Lending of the Sample Banks	84
4.1.9.1 Sector wise Lending of Machhapuchhre Bank Ltd. (MBL)	84
4.1.9.2 Sector wise Lending of Kumari Bank Ltd. (KBL)	87
4.1.9.3 Comparative Study of Sector wise Lending of MBL and KBL	89
4.1.10 Lending in Real Estate Sector	90
4.1.10.1 Lending in Real Estate Sector of Machhapuchhre Bank Ltd. (MBL)	91
4.1.10.2 Lending in Real Estate Sector of Kumari Bank Ltd. (KBL)	92
4.1.10.3 Comparative Analysis of Lending in Real Estate Sector of Sample Banks	93
4.1.11 Product wise Lending of the Sample Banks	94
4.1.12 Security wise Lending of the Banks	96
4.1.12.1 Security wise lending of Machhapuchhre Bank Ltd. (MBL)	98
4.1.12.2 Security wise lending of Kumari Bank Ltd. (KBL)	100

4.2 Corporate Governance in the Sample Banks	101
4.2.1 Corporate Governance in Machhapuchre Bank Ltd. (MBL)	102
4.2.2 Corporate Governance in Kumari Bank Ltd. (KBL)	102
4.3 Analysis of Primary Data	103
4.3.1 Test of Hypothesis	104

CHAPTER – V SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary	101
5.2 Major Findings	111
5.3 Conclusion	113
5.4 Recommendations	115

Bibliography

Annexure

LIST OF TABLES

Table No.	Title	Page No.
1.1	Number of Financial Institutions Licensed by NRB	4
2.1	Flow Chart of Loan Procedure	27
2.2	Off Balance Sheet Exposure	33
2.3	Real Estate Lending	37
4.1	Credit to Deposit Ratio (CD Ratio)	70
4.2	Total Loans and Advances to Total Assets Ratio	72
4.3	Total Non-Performing (NPL) Loan to Total Loans and Advances Ratio	73
4.4	Total Loan Loss Provision (LLP) to Non-Performing Loan (NPL)	75
4.5	Total Loan Loss Provision (LLP) to Loans and Advances Ratio	77
4.6	Total Capital Fund to Risk Weighted Asset (RWA) Ratio	79
4.7	Core Capital (Tier 1) to Risk Weighted Asset (RWA) Ratio	81
4.8	Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio	83
4.9	Sector wise lending of Machhapuchre Bank Ltd. (MBL)	85
4.10	Sector wise lending of Kumari Bank Ltd. (KBL)	87
4.11	Lending in Real Estate Sector of Machhapuchre Bank Ltd. (MBL)	91
4.12	Lending in Real Estate Sector of Kumari Bank Ltd. (KBL)	92
4.13	Comparative Analysis of Average Product Wise Loan to Total Loan Of MBL	95
4.14	Comparative Analysis of Average Product Wise Loan to Total Loan Of KBL	95
4.15	Security wise lending of Machhapuchre Bank Ltd. (MBL)	98
4.16	Security Wise Lending of Kumari Bank Ltd. (KBL)	100
4.17	Hypothesis test regarding the ranking of major Banking risk in Nepal	105
4.18	Hypothesis test regarding the ranking of major source of credit risk in Nepal	106

LIST OF FIGURES

Figure No.	Title	Page No.
4.1	Credit to Deposit Ratio (CD Ratio)	70
4.2	Total Loans and Advances to Total Assets Ratio	72
4.3	Total Non-Performing (NPL) Loan to Total Loans and Advances Ratio	74
4.4	Total Loan Loss Provision (LLP) to Non-Performing Loan (NPL)	76
4.5	Total Loan Loss Provision (LLP) to Loans and Advances Ratio	78
4.6	Total Capital Fund to Risk Weighted Asset (RWA) Ratio	80
4.7	Core Capital (Tier 1) to Risk Weighted Asset (RWA) Ratio	81
4.8	Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio	83
4.9	Sector wise lending of Machhapuchre Bank Ltd. (MBL)	86
4.10	Sector wise lending of Kumari Bank Ltd. (KBL)	88
4.11	Comparative Study of Sector wise Lending of MBL and KBL	89
4.12	Comparative Analysis of Lending in Real Estate Sector of MBL and KBL	93
4.13	Comparative Analysis of Average Product Wise Loan to Total Loan	96

ABBREVIATION

%	Percentage
A.D.	Anno Domini
AGM	Annual General Meeting
ATM	Automatic Teller Machine
B.S.	Bikram Sambat (Abbreviation of Bikram Era)
BAFIA	Bank and Financial Institution Act
BCBS	Basel Committee of Banking Supervisions
BFI	Bank and Financial Institutions
BoD	Board of Directors
C/D Ratio	Credit to Deposit Ratio
CAR	Capital Adequacy Ratio
CEO	Chief Executive Officer
CIB	Credit Information Bureau
CIC	Credit Information Centre
CRM	Credit Risk Management
CRR	Cash Reserve Ratio
CV	Coefficient of Variation
ECA	Export Credit Rating Agencies
Etc	Etcetera
FIs	Financial Institutions
GDP	Gross Domestic Product
GoN	Government of Nepal
H ₁	Alternative Hypothesis
HBL	Himalayan Bank Ltd.
H ₀	Null Hypothesis
i.e.	That is
IRB	Internal Ratings Based Approach
KBL	Kumari Bank Ltd
LLP	Loan Loss Provision

Ltd.	Limited
MBL	Machhapuchhre Bank Ltd
NBL	Nepal Bank Ltd
NEPSE	Nepal Stock Exchange
NIBL	Nepal Investment Bank Ltd.
NIDC	Nepal Industrial Development Corporations
NPA	Non Performing Assests
NPL	Non Performing Loan
NRB	Nepal Rastra Bank
OECD	Organization of Economic Cooperation and Dvelopment
R and D	Research and Development
RBB	Rastriya Banijya Bank
RWA	Risk Weighted Assests
S.D	Standard Deviation
SMS	Short Message Service
SSIT	Simplified Standardized Approach

CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Commercial banks accept deposits and pool 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 to trade balance, higher gross domestic product, increase in exports and ultimately increasing per capita income of the citizens.

Banking Industry is a part of the economic system. It has a significant contribution to the Gross Domestic Product (GDP) of the country. Banks are the institutions which facilitate fund from saving unit to deficit unit. They are the ones which provide complete financial solutions to their valued customers. As they are in a risky business, they are constantly regulated by the regulatory authority. In the process of providing complete financial services, they assume various kinds of risks among which credit risk covers the significant portion of the total risk. While commercial banks have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to credit standards for borrowers and counterparties, poor portfolio risk management, or lack of attention to changes in economic and/or other circumstances that can lead to deterioration in the credit standing of a bank's counterparties. Since the exposure to credit risk continues to be the leading source of problems in commercial banks world-wide, the banks should now have a keen awareness of the need to identify, measure, monitor, manage and control the credit risk as well as determine that they hold adequate capital against these risks and that they are adequately compensated for the risks assumed.

Due to their critical status within the financial system and the economy generally, Banks are highly regulated in most countries. Most banks operate under a system known as fractional reserve banking where they hold only a small reserve of the funds deposited and lend out the rest for profit. They are generally subject to minimum capital requirements which are based on an international set of capital standards, known as the Basel Accords.

1.1.1 Banking History and Banking System in Nepal

The evolution of the original banking system in Nepal has a more recent history than in other countries of the world. Before the establishment of “Tejarath Addha” during the period of the premier of Ranoddip Singh, the unorganized sector i.e; Moneylenders, Goldsmiths, Landlords have their universal domination on the financial matter. They used to charge very high interest rates. The Addha was initiated to provide credit at a cheap rate against gold and silver. The area of its functioning was limited to Kathmandu valley and some urban areas of the Terai. “Tejarath Addha” may be regarded as the father of the modern banking institutions and for a long time it rendered a good service to government servants as well as to general public by mobilizing scattered saving in the country and provide credit to the people at a cheaper rates. Nepal started its modern Banking from establishment of Nepal Bank Limited on Kartik 30, 1994 inaugurated by late King Tribhuvan Bir Bikram Shah Dev. 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. The Bank main objective at that time was to render service to the people whether rich or poor and to contribute to the nation's development. In that era, very few understood or had confidence in this new concept of formal banking. Raising equity shares were not easy and mobilization of deposits even more difficult. This was evident when the bank floated equity shares worth NRs. 2,500,000, but was successful only in raising NRs. 842,000. The total deposits for the first year was NRs. 17,02,025 where current deposits was about NRs. 12,98,898 fixed was about NRs. 3,88,964 and saving was NRs. 14,163. Loan disbursed and outstanding at the end of the first year was NRs. 1,985,000. After the establishment of Democracy in 2007 B.S. , 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. Government then established Nepal Industrial Development Corporation (NIDC) in 1959 with the assistance of United States of America followed by co-operative in 1967, now known as Agriculture Development Bank. And then Rastriya Banijya Bank with 100% government share was established in 2034 B.S., Later on Joint venture Bank Nepal Arab Bank Ltd. Established in 1984 A. D. as first private sector bank in Nepal. Later on after the arrival of multiparty democracy many Banks and Financial Institutions grew in Nepal due to the liberalization and open door policy to establish the FIS.

1.1.2 Nepalese Financial System

Banks and financial institutions licensed by NRB are classified as A, B, C and D class institutions. Commercial banks are 'A' class institutions, whereas development banks are categorized as 'B', finance companies as 'C' and micro finance development banks as 'D'. There are some Cooperatives and Non Government Organizations licensed for limited financial activities as non classified financial institutions. Besides, there are significant numbers of co-operatives and postal saving offices that undertake limited banking and near banking financial services. Similarly, substantial amount of financial assets is created by non-bank financial sector; which comprises saving funds and trusts like Employee Provident Fund, Citizen Investment Trusts and insurance companies in the Nepalese financial system. With the shift in the trend in banking industry, Nepal has also experienced so many ups and downs in the financial system. Many new issues are emerging creating shorter and longer-term impact in the system. Banks need to proactively assume their responsibilities and work on strengthening their capacity, bearing in mind the 21st century global struggle in the financial sector.

The face of commercial banking is changing rapidly. Competition is getting tougher with financial liberalization. For a strong and resilient banking and financial system, therefore, banks need to go beyond peripheral issues and tackle major issues like improvements in profitability, efficiency and technology, while achieving economies of scale through consolidation and exploring available cost-effective solutions. These are some of the issues that need to be addressed if banks are to succeed in the days to come. Below depicts the number of financial institutions licensed by NRB as on mid-July 2012 in the Nepalese Financial System.

Table No 1.1

Number of Financial Institutions licensed by NRB (Mid-July 2012)

S.N.	Type of financial Institutions	Class	In Number
1	Commercial Banks	A	32
2	Development Banks	B	88
3	Finance Companies	C	69
4	Micro Finance Development Banks	D	24
5	Saving and Credit Co-operatives Ltd. (Banking Activities)	Non-classified	16
6	Non-Government Organizations (Financial Intermediaries)	Non-classified	36
	Total		265

Source: NRB, Banking and Financial Statistics Mid-July 2012, No 58

1.2 Risks in the Banks

Banks are mostly involved in collecting the funds and lending it to the borrowers with a margin over the collection rate. The major functions that banks have to perform are: - Issuance of money, Netting and settlement of payments, credit intermediation, credit quality improvement, maturity transformation, money creation etc. Different types of risk incurs in this process. There is a probability of either rise in the quality of the assets of the banks or degradation of the quality of the assets of the banks. The banks have to undergo through a long risk assessment process to overcome these risk. Some of the main risks faced by banks include:

- Credit risk: risk of loss arising from a borrower who does not make payments as promised.
- Liquidity risk: risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss.
- Market risk: risk that the value of a portfolio, either an investment portfolio or a trading portfolio, will decrease due to the change in value of the market risk factors.
- Operational risk: risk arising from execution of a company's business functions.
- Reputational risk: a type of risk related to the trustworthiness of business.
- Country Risk: Country risk means the potential for default of foreign private sector clients arising from country-specific economic, social and political factors. An

institution should also assess a client's ability to obtain foreign exchange to service cross-currency debt and honor contracts across jurisdictions.

1.2.1 Assessing Credit Risk

Credit risk is the risk arising from the uncertainty of an obligor ability to perform its contractual obligations. Credit risk could stem from both on- and off-balance sheet transactions. An institution is also exposed to credit risk from diverse financial instruments such as trade finance products and acceptances, foreign exchange, financial futures, swaps, bonds, options, commitments and guarantees. Credit risk often does not occur in isolation. A risk event may engender both market and credit risks. For example, a rise in interest rates could impair the creditworthiness of the bond issuer thereby increasing the credit risk to an institution holding those bonds. At the same time, the fall in the value of the bond raises the market risk for the institution. An institution should therefore adopt a holistic approach to assessing credit risk and ensure that credit risk management is part of an integrated approach to the management of all financial risks. The institution should establish a risk management framework to adequately identify measure, monitor and control credit risk. Adequate capital should be held against credit risks assumed. The institution should also comply with all relevant rules, regulations and prudential requirements.

Credit risk is the major risk that banks are exposed to during the normal course of lending and credit underwriting. Within Basel II, there are two approaches for credit risk measurement: the standardized approach and the internal ratings based (IRB) approach. Due to various inherent constraints of the Nepalese banking system, the standardized approach in its simplified form, Simplified Standardized Approach (SSA), has been prescribed in the initial phase.

Credit Risk involves:

- Risk of default: The risk that a counter party will be unable to perform as agreed.
- Risk of Loss: The risk that a result of counter party's inability to perform as agreed, the lender suffers a loss- Accounting losses and Economic losses.

Credit risk assessment thus involves:

1. Credit Granting

An institution should have an established process for approving new credits and for the renewal of existing credits. Credit should be extended in accordance with the credit strategy of the institution. The credit granting process should encompass the following elements:

- credit assessment of an obligor as well as related industry and macroeconomic factors;
- structuring of credit transactions;
- approval by management with the appropriate authority;
- completion of legal documentation; and
- Disbursement.

An institution should conduct comprehensive assessments of the creditworthiness of its obligors. These should include, where pertinent, analysis of the obligor's financial position as reflected in various financial and cash flow statements, past repayment record, management quality and integrity, as well as relevant industry and macroeconomic data. For corporate obligors, adequate checks on the shareholders and company directors should be conducted. The institution should group related obligors, where appropriate, and conduct credit assessment on a group basis. When granting consumer credits, an institution should have an adequate process to screen applicants, such as reference checks with a consumer credit bureau or other database of rejected applications, bankruptcies and accounts with delinquency records.

2. Collateral Valuation

The value of collateral should be updated periodically to account for changes in market conditions. If the facility is backed by an inventory or goods purportedly on the obligor's premises, appropriate inspections should be conducted to verify the existence and valuation of the collateral.

3. Credit Reviews

An institution should perform regular credit reviews. The purpose of a credit review is to verify that credits are granted in accordance with the institution's credit policies and to provide an independent judgment of asset quality. The institution should conduct credit

reviews with updated information on the obligor's financial and business conditions, as well as the conduct of the account. Exceptions noted should be evaluated for impact on the obligor's creditworthiness. Credit reviews should also be conducted on a consolidated group basis to factor in the business connections among related entities in a borrowing group. Credit reviews should be performed at least once a year. More frequent reviews should be conducted for new accounts and for classified accounts. Procedures should also be instituted to ensure that reviews are conducted at the appropriate times. A process to approve deferment of credit review should also be put in place. For consumer loans, an institution may dispense with the need to perform credit reviews of individual obligors for certain types of products. However, it should monitor and report credit exceptions and deterioration.

4. Credit Administration

An essential part of the credit process is credit administration. Credit administration refers to the back office activities that support and control extension and maintenance of credit. An institution should ensure that there are effective procedures for performing the following credit administrative functions:

- a. Credit Documentation
- b. Disbursement
- c. Repayment
- d. Maintenance of Credit Files
- e. Collateral Documents

5. Internal Risk Rating

An institution should have a policy to develop, review and implement an internal risk rating system where appropriate. Such a system should be able to assign a credit risk rating to obligors that accurately reflects the obligors' risk profile and likelihood of loss. It should also assign risk ratings in a consistent manner to enable the institution to classify obligors by risk ratings and have a clearer understanding of the overall risk profile of its portfolio. The institution's credit policy should define the various risk grades of its rating system. It should also set the criteria for assigning risk grades and the circumstances under which deviations from criteria are permitted.

1.2.2 Risk Management Policies and Procedures

An Institution should determine the level of credit risk that it can bear. It should develop a risk management strategy that is consistent with its credit risk tolerance and business goals. In formulating this strategy, the institution should consider the following:-

- **Risk Strategy:** It is the process to develop credit risk management strategy consistent with the institution's risk tolerance and business goals.
- **Risk Management Structure:** It assesses the senior management committee to oversee the credit risk management framework and process and the organizational control functions to perform credit risk measurement, monitoring and control processes.
- **Policies and Procedures:** It assesses the comprehensive policies to govern credit risk taking and management activities consistent with the institution's risk profile and nature of business.
- **Delegation of Authority:** It assesses the clear directives and guidelines on delegation of authority for the granting and review of credit and process to ensure timely review of authority and reporting of exceptions.

1.2.3 Credit Risk Mitigation

An institution may utilize collateral and guarantees, among other instruments, to help mitigate credit risks. However, collateral and guarantees should not be used as a substitute, either for comprehensive assessment of the obligor or for complete obligor information. The potential correlation between collateral values and the obligor's financial condition should also be considered, especially in asset-based lending. Specific proportions of financing should be established for different types of collateral. The quantum should be set at a level that provides sufficient cushion against a decline in collateral values. There should be periodic reviews to assess the value of the collateral and the appropriateness of the lending margin. An institution should exercise caution when extending credit against illiquid assets. An institution should have in place a system for monitoring the condition of individual credits. Key indicators of credit condition should be specified and monitored to identify and report potential problem credits.

1.3 Governance in the Banks

Governance is related to the systematic management, exercise of power for compliance of the established rules, regulations and laws, and controlling the any deviations from the standard norms. Governance in the banks means compliance of the guidelines, rules, laws and social obligation by the institution for fulfilling its objective. It consists of either a separate process or part of management or leadership processes. Corporate organizations often use the word governance to the laws and customs applying to that direction and the manner in which boards or their like direct a corporation. Banks are the institutions that are doing their business with the public assets. They are the most sensitive and risky organizations. Governance is must vital pivot that binds the banks within the regulatory periphery. Moreover governance is directly related to credit risk management. Lack of governance leads to misallocation of resources, unethical exercise of power, and misappropriation of assets of the banks. Banks are the public institution. Faith of the mass is most necessary for long run sustain of the banks. Thus governance plays an important role in credit risk management. In this research, the word governance mainly incorporates corporate governance of the institution and governance by the central regulatory authority i.e. Nepal Rastra Bank.

1.4 Credit Risk Management and Corporate Governance in Nepalese Banks

Nepal Rastra Bank being the central Bank i.e. regulatory body has been issuing circulars and has set different benchmarks for mitigation of the risk. Nepal Rastra Bank has implemented capital adequacy framework as per BASSEL II, threshold for granting loan in a sector, concentration of the credit and obligor. Likewise we have been facing major credit risk in Real Estate sector these days due to the concentration of credit in a single sector and security. Most of the financial institutions have faced a radical problem due to the concentration of risk in a sector. We can study the balance sheet with the increasing loan loss provision amount. Moreover these days the national dailies are filled up with the auction notice of property used for loan and most of them are from the Real Estate sector. So, mitigation of credit risk is a most important function of Nepal Rastra Bank. NRB has adopted following measures for mitigation of the risk:

1. Implementing BASSEL II (Capital Adequacy)

Institution	Capital Adequacy Ratio	
	Primary Capital	Supplementary Capital
"A" class	6%	10%
"B "and "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. Credit information and black listing
7. 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 2069. 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 banking position and its values. Moreover we have just faced a huge recession in year late 2007. American economy was harassed due to the concentration of risk in Real Estate sector. Thus, Nepal Rastra Bank has been implementing its monetary policies in compliance with the fiscal policies as per the BASSEL II for mitigation of credit risk.

1.5 Statement of the Problem

In a last decade banking and financial sector including co-operatives has been a profitable sector of investment for the business personnel. Expansion of the financial sector has been to a great extent but due to the increased number of the institutions, there has been

an unhealthy competition in collecting deposits and granting credit for the obligors. As well as due the adverse political situation of the country, many Banks have concentrated their in some individual sectors in large portions. Resulting from the initial wrong decision of the financial institutions few months back many organizations suffered from the financial crisis i.e. mainly liquidity crisis. But mis-conduct was found in the time of investigation and Nepal Rastra has too has taken over the management in some organizations.

A few years back the management of Nepal Bangladesh Bank Ltd; Lumbini Bank was taken over by Nepal Rastra Bank due to bankruptcy situation due to irregularity in loans granted by the promoters of these organizations. Likewise, the government has invested huge sum amount of the fund with assistance of World Banks as Financial sector reform program in government Banks i.e. Rastriya Banijya Bank (RBB) and Nepal Bank Ltd.(NBL). At the time of introduction of financial sector reform program these government had about 60% of total loan as bad loan of their total loan. This was due to the wrong decision of the management and granting of loan without assessing credit risk as well as the loan was granted by taking the bribe. Recently too, some of the institutions were found unregulated. For the first time in the Nepalese history Nepal Development Bank Ltd was liquidated and other institutions like Gorkha Development Bank Ltd, Vibor Bikas Bank Ltd, Samjhana Finance, United Bikas Bank Ltd, Capital Merchant Banking and Finance Ltd., Nepal Share Market Finance Ltd. etc were found with unsound financial health and with lack of corporate governance.

The banking sector is facing immense challenge from the loan granted these days. The main concentration of credit was Real Estate sector. Despite a slowdown in real estate and stock market transactions, the nonperforming loan (NPL) ratio has increased marginally in mid-July 2011. The NPL ratio of commercial bank decreased to 2.6 percent in Mid-July 2012 from 3.2 percent in Mid-July 2011. The total amount of NPA in Mid-July 2012 reached to Rs. 16, 325 million from Rs. 16872 million in the Mid-July 2012. The NPL ratios of Nepal Bank Limited and Rastriya Banijya Bank Limited, which are of special concern under Financial Sector Reform Program, stood at 5.83 percent and 7.27 percent respectively in Mid-July 2012. The NPL ratios of these two banks were respectively 2.28 and 11.45 percent in mid-July 2010. To avoid further depletion in the

quality of loan and advances of banks and financial institutions, NRB has raised the ceiling for individual residential home loan upto Rs. 8 million from Rs. 6 million and allowed renewal of such loan up to mid-July 2012 upon the payment of interest dues by the borrowers. Similarly, banks and financial institutions are allowed to fix margin requirement of their own by minimizing inherent risk in such margin-type loan against the collateral of shares.

The growth rate of deposit was also low in 2010/11. Deficit in BOP, increasing consumption tendency and cash surplus of the Government of Nepal (GON) in most of the months are among the factors responsible for lower growth in deposit mobilization compared to the previous year. The deposit mobilization of “A”, ”B” and “C” class BFIs increased by 18.2 percent (Rs. 149.92 billion) in eleven months of FY 2011/12. In the corresponding period of the previous year, such deposit had increased by only 8.9 percent (Rs. 64.63 billion). The deposit mobilization by class 'A', class 'B' and class 'C' banks and financial institutions increased by 8.2 percent (Rs. 59.62 billion) to Rs. 788.72 billion in the ten months of 2010/11 while current and saving deposits together declined by Rs. 10.48 billion. The saving deposit was diverted to fixed deposit on account of increased interest rates on fixed deposit. Considering the inadequacy of credit flow to productive sector due to over concentration of credit to unproductive sector and liquidity shortfall, NRB had introduced a refinance facility to bank and financial institutions to provide credit to specified productive sectors through the mid-term review of monetary policy for the fiscal year 2009/10. Bank and financial institutions used Rs. 5.38 billion under this facility in 2010/11 (Monetary Policy 2011/12).

Along with the introduction of NRB Directives, 2068, NRB has clearly defined the overall credit risk mitigation measures. The growing numbers of financial institutions has created the challenge to the regulatory authority for regulation. Credit risk is not itself credit created; it is a subsequent result of lack of corporate governance and change in political scenario of the country. When the management does not follow the instructions of the regulatory authority these types of problems are created. Along with the credit risk, operational risk has been a major challenge to the commercial Banks.

Nepal Rastra Bank has implemented BASSEL II from 2007 in Nepal with parallel way has become an immense challenge to the Nepalese commercial Banks. As per NRB Unified Directive 2069 the capital adequacy ratio is 6% on Primary capital (Core Capital) and 10% on Total Capital (Primary+Supplementary). Nepal has been highly rated i.e. ECA 7(Export Credit Rating Agencies) as the country risk of the nation is high due the political instability. Nepalese Banks should provide up to 200% risk weight for their assets.

This study thus focuses, on the problems faced by commercial banks in Nepal along with credit risk and corporate governance. The study is mainly focused on finding answers to the following research questionnaires:

- How is the Capital adequacy framework adopted and maintained by the sample banks?
- Do the sample banks have diversification of their assets in the different sector of the economy as prescribed and described by the regulatory authority and their role in credit risk management i.e. sector wise lending?
- What is the status of the assets of the sample banks of the study period i.e. non-performing loan of the banks, loan loss provision of the banks, total loans and advances?
- What are the different securities of the loans and advances that are granted for i.e. security wise lending of the sample banks?
- What is the product wise concentration of loans and advances in the sample Banks?
- What is the Liquidity position of the sample banks and role of liquidity risk in credit in credit risk management?
- How are corporate governance in the sample banks and their role in credit risk management?

1.6 Objectives of the Study

The researcher mainly focused the study on finding the major risk, situation of corporate governance, role of regulatory body in credit risk management, governance in the commercial banks. Due to the political instability, negative business environment, load shedding, liquidity crisis, high interest rates, lack of corporate governance etc the

borrowing by the obligor has not been increasing significantly. As well as the due to the threshold in real estate sector and margin lending by NRB, these sectors are in crisis. The lending of the commercial banks in this sector is in major risk these days. 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.

Credit risk management in the sample banks is the major focus of the study. With the sample banks the researcher is aimed at drawing the conclusion of credit safety, credit granting, credit risk management, internal risk rating and internal regulation, corporate governance in most of the commercial banks in Nepal. The main objective of the study is to:

- Analyze the diversification of the loan and advances in different sectors of the economy as described and prescribed by the regulatory authority.
- Find the assets quality of the sample banks i.e. non-performing loans (substandard, doubtful and bad category) and performing loan (pass category).
- Analyze the capital adequacy framework and capital maintained by the sample banks to total loans and advances.
- Find the position of security wise lending in the sample banks.
- Assess the liquidity position of the bank i.e. credit to deposit ratio (C/D ratio) and the role of liquidity risk in credit risk management and corporate governance
- Analyze the situation of corporate governance in the sample banks.

1.7 Significance of the Study

Banks are just the intermediaries who transform the fund from one unit to another with some profit. The actual owners of the money are the public depositor or the institutional depositor (public deposit in Institutions i.e. the money is of public). So if the lending is done in risk it spoils the economic level of the general public. Credit risk arises along with the operational risk of the institution i.e. if the manpower is not trained, system is not in compliance the fund that is granted as loan is in danger. Thus credit risk management is a very serious issue for the institution. Failure of the banking system leads

to the failure of economic system of the country. Through the sample banks the researcher has tried to show the areas that are affected by the concentration of risk in a single sector. This study includes the areas of credit risk management in compliance with the NRB guidelines i.e. Unified Directives, 2069. With this study different stakeholders shall be largely facilitated for the effects and challenges of credit risk.

This research shall be significant but not limited to the different stake holders of the economy for different measures as mentioned below:-

- To the Banks and Financial Institutions governed by NRB and other non-licensed institutions i.e. co-operatives for taking necessary measures to mitigated the credit risk. This research is focused for establishing benchmark in compliance with the NRB Unified Directives, 2069 to take proper decisions in credit risk management for top officials and management of the Banks.
- To the regulator Authority i.e. Nepal Rastra Bank to take control measures for reducing risk concentration in a single sector. This research shall provide a brief overview of the problems faced by the Nepalese commercial Banks with the help of sample banks.
- To the government for introducing the suitable fiscal policy for the healthy growth of economic sector along with the banking sector. This study shall provide brief insight problems of Nepalese financial economy. Government can formulate policies, rules to utilize the liquidity that is excess in financial institutions with political stability.
- To Shareholders, Public/Consumers, depositors taking proper decision for investment and safeguarding of their money. This research aims to provide the suggestion to the general public for evaluating their financials before taking risk of their money.
- To Executive management, Audit committee and internal auditors and External Auditors to develop proper mechanism to control and monitor the organization in compliance with the benchmark set by the regulatory authority. The Audit committee shouldn't provide room to play for management for taking any wrong action. They should be vigilant.

- To the researchers, student to study the problems faced by the Banking sector in Nepal. The researcher can find the meaning of credit risk, measures to control the credit risk, solution to the credit risk management and they even can use this research as their text material as supplementary.

1.8 Limitations of the Study

This research is conducted by the single effort of the researcher. There may be the personal limitations of the researcher. But during the course of research the researcher has to heavily rely on the secondary data, internet, emails, journals, articles, publications and resource persons. Thus some of the limitations the researcher discovered during the course of study are as listed below:-

- The study is based on secondary data collected from the annual reports of the sample banks and primary data collected through the mailed questionnaire from the employees in the sample banks. Therefore, the limitations of those data are also the inherent limitations of the study.
- Since the study takes only two commercial banks from among 32 banks which do not represent the total commercial banks operating in the country. Therefore, the conclusion of the study is limited only to the banks understudy.
- The study is done from the financials during the year 2062/63 to 2068/69. Thus the study between this period may not show the whole financial condition of the sample Banks. However, the accuracy of results and conclusions highly depends on the reliability of these facts and the time and situation of data collection.
- The evaluation is made through the analysis of financial statement published and presented by the banks. Therefore generalization of the whole banking industry cannot be made.
- The research methodology doesn't cover all scope of the bank. So, conclusion drawn hereunder may not reflect overall picture of the sample Banks. Ratio analysis cannot take into account any non-financial factors. Thus judging the Banks without considering the strength of the economy, the size of the market, the reliability and experience of the workforce, the long-term plans of the may not reflect the original

scenario. Financial information can be “massaged” in several ways to make the figures used for ratios more attractive.

- An Institution may have some good and some bad ratios, making it difficult to tell if it's a good or weak institution. For research purpose, the six-year data are used in analyzing the financial and statistical tools, which may mislead the research work, as it is not sufficient to make projections for future regarding the performance of the bank.

1.9 Organization of the Study

The whole study is divided into five different chapters. They are:

Chapter I is the introduction chapter. It includes general background of the study, the profile of the study, statement of the problems, objectives of the study, significance of the study, and limitations of the study and chapter plan of the study.

Chapter II deals with review of literatures, which includes conceptual/ theoretical review and review of related studies.

Chapter III is research methodology which includes research design, population and sample, source of data, data collection techniques and data analysis tools.

Chapter IV deals with the various analysis and interpretations of data like analysis of deposits, loan and advances etc and profile of Machhapuchre Bank Ltd and Kumari Bank Ltd, financial and statistical analysis and analysis of primary data. It also shows major finding of the study.

Chapter V includes summary and conclusion of the study. It also deals with recommendations suggested.

The list of biography and annexes are given at the last for references.

CHAPTER - II

REVIEW OF LITERATURE

This chapter is focused on the brief review of studies done regarding the theories of capital credit risk management. As this research is concerned with credit risk management in Nepalese Commercial banks with the analysis of Machhapuchre Bank Ltd. (MBL) and Kumari Bank Ltd (KBL), literature related to these institutions has been reviewed. Based on this review, a theoretical framework for the study has been drawn, and research gaps have been identified.

2.1 Meaning of Credit

Credit is the trust which allows one party to provide resources to another party where that second party does not reimburse the first party immediately, but instead arranges either to repay or return those resources at a later date. The resources provided may be financial, or they may consist of goods or services. Credit encompasses any form of deferred payment credit is extended by a creditor, also known as a lender, to a debtor, also known as a borrower. Credit, in commerce and finance, term used to denote transactions involving the transfer of money or other property on promise of repayment, usually at a fixed future date. The transferor thereby becomes a creditor, and the transfer, a debtor; hence credit and debt are simply terms describing the same operation viewed from opposite standpoints.

2.1.1 Meaning of Risk

The Oxford English Dictionary cites risk as the possibility of loss, injury, or other adverse or unwelcome circumstance; a chance or situation involving such a possibility. The ISO 31000 (2009) /ISO Guide 73 defines risk as the 'effect of uncertainty on objectives'. In this definition, uncertainties include events (which may or not happen) and uncertainties caused by a lack of information or ambiguity. It also includes both negative and positive impacts on objectives.

Financial risk in a banking organization is possibility that the outcome of an action or event could bring up adverse impacts. Such outcomes could either result in a direct loss of earnings / capital or may result in imposition of constraints on bank's ability to meet

its business objectives. Such constraints pose a risk as these could hinder a bank's ability to conduct its ongoing business or to take benefit of opportunities to enhance its business. Risks are usually defined by the adverse impact on profitability of several distinct sources of uncertainty. While the types and degree of risks an organization may be exposed to depend upon a number of factors such as its size, complexity business activities, volume etc, it is believed that generally the banks face Credit, Market, Liquidity, Operational, Compliance / legal /regulatory and reputation risks (Holton, 2004).

2.1.2 Meaning of Risk Management

Risk Management is a discipline at the core of every financial institution and encompasses all the activities that affect its risk profile. It involves identification, measurement, monitoring and controlling risks to ensure that

- i. The individuals who take or manage risks clearly understand it.
- ii. The organization's Risk exposure is within the limits established by Board of Directors.
- iii. Risk taking Decisions are in line with the business strategy and objectives set by BOD.
- iv. The expected payoffs compensate for the risks taken
- v. Risk taking decisions are explicit and clear.
- vi. Sufficient capital as a buffer is available to take risk

The acceptance and management of financial risk is inherent to the business of banking and banks' roles as financial intermediaries. Risk management as commonly perceived does not mean minimizing risk; rather the goal of risk management is to optimize risk-reward trade -off. Notwithstanding the fact that banks are in the business of taking risk, it should be recognized that an institution need not engage in business in a manner that unnecessarily imposes risk upon it: nor it should absorb risk that can be transferred to other rather it should accept those risks that are uniquely part of the array of bank's services.

The risk management level can be studied as:-

- **Strategic Level:** It encompasses risk management functions performed by senior management and BOD.
- **Macro Level:** It encompasses risk management within a business area or across business lines. Generally the risk management activities performed by middle management or units devoted to risk reviews fall into this category.
- **Micro Level:** It involves ‘On-the-line’ risk management where risks are actually created. This is the risk management activities performed by individuals who take risk on organization’s behalf such as front office and loan origination functions. The risk management in those areas is confined to following operational procedures and guidelines set by management.

Commercial banks are the foundation of the payment system in many economies by playing an intermediary role between savers and borrowers. They further enhance the financial system by ensuring that financial institutions are stable and are able to effectively facilitate financial transactions. The main challenges to commercial banks in their operations are the disbursement of loans and advances. There is need for commercial banks to adopt appropriate credit appraisal techniques to minimize the possibility of loan defaults since defaults on loan repayments leads to adverse effects such as the depositors losing their money, lose of confidence in the banking system, and financial instability.

2.1.3 Types of Risk Faced by Commercial Banks

During Operations Financial Institutions faces different types of risk. The risk may be security risk, survival risk, cultural risk or other general phenomenal risks, but these risks are not financial. Financial risk arises basically due to credit Risk, operational risk, market risk, credit Concentration Risk, liquidity Risk and other Risk (Basel 2007). Basel Committee 2007 has mainly listed the above mentioned risk as the major risk that challenges the organizations for the operation. Credit risk plays even more significance among these risks. Credit risk may lead organization into insolvency or liquidation. The detailed summary of the risk that the banks are exposed to are listed below:-

1. Credit Risk

Credit risk arises from the potential that an obligor is either unwilling to perform on an obligation or its ability to perform such obligation is impaired resulting in economic loss to the bank. Credit risk can be further sub-categorized on the basis of reasons of default. Credit risk not necessarily occurs in isolation. The same source that endangers credit risk for the institution may also expose it to other risk. For instance a bad portfolio may attract liquidity problem. Credit risk is the major risk that banks are exposed to during the normal course of lending and credit underwriting.

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. 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. Banks 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. Since exposure to credit risk continues to be the leading source of problems in banks world-wide, banks and their supervisors should be able to draw useful lessons from past experiences. Banks should now have a keen awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred. The Basel Committee is issuing this document in order to encourage banking supervisors globally to promote sound practices for managing credit risk. Although the principles contained in this paper are most clearly applicable to the business of lending, they should be applied to all activities where credit risk is present.

2. Market Risk

It is the risk that the value of on and off-balance sheet positions of a financial institution will be adversely affected by movements in market rates or prices such as interest rates, foreign exchange rates, equity prices, credit spreads and/or commodity prices resulting in a loss to earnings and capital. Conversely it may be implicit such as interest rate risk due to mismatch of loans and deposits. Besides, market risk may also arise from activities

categorized as off-balance sheet item. Therefore market risk is potential for loss resulting from adverse movement in market risk factors such as interest rates, forex rates, and equity and commodity prices.

a) Interest Rate Risk

Interest rate risk arises when there is a mismatch between positions, which are subject to interest rate adjustment within a specified period. The bank's lending, funding and investment activities give rise to interest rate risk. The immediate impact of variation in interest rate is on bank's net interest income, while a long term impact is on bank's net worth since the economic value of bank's assets, liabilities and off-balance sheet exposures are affected.

b) Foreign Exchange Risk

It is the current or prospective risk to earnings and capital arising from adverse movements in currency exchange rates. It refers to the impact of adverse movement in currency exchange rates on the value of open foreign currency.. The banks are also exposed to interest rate risk, which arises from the maturity mismatching of foreign currency positions.

c) Equity Price Risk

It is risk to earnings or capital that results from adverse changes in the value of equity related portfolios of a financial institution. Price risk associated with equities could be systematic or unsystematic. The former refers to sensitivity of portfolio's value to changes in overall level of equity prices, while the later is associated with price volatility that is determined by firm specific characteristics.

3. Liquidity Risk

Liquidity risk is the potential for loss to an institution arising from either its inability to meet its obligations or to fund increases in assets as they fall due without incurring unacceptable cost or losses. Liquidity risk is considered a major risk for banks. It arises when the cushion provided by the liquid assets are not sufficient enough to meet its obligation. In such a situation banks often meet their liquidity requirements from market. However conditions of funding through market depend upon liquidity in the market and borrowing institution's liquidity. Liquidity risk may not be seen in isolation, because

financial risk are not mutually exclusive and liquidity risk often triggered by consequence of these other financial risks such as credit risk, market risk etc.

4. Credit Concentration Risk

Risk concentrations are arguably the single most important cause of major problems in banks. A risk concentration is any single exposure or group of exposures with the potential to produce losses large enough (relative to a bank's capital, total assets, or overall risk level) to threaten a bank's health or ability to maintain its core operations.

Lending being the primary activity of most banks, credit risk concentrations are often the most material risk concentrations within a bank. However, risk concentrations can arise in a bank's assets, liabilities, or off-balance sheet items, through the execution or processing of transactions (either product or service), or through a combination of exposures across these broad categories. Credit risk concentrations are based on common or correlated risk factors, which, in times of stress, have an adverse effect on the creditworthiness of each of the individual counterparties making up the concentration. Such credit concentrations are not addressed in the minimum capital requirements for credit risk. Thus, Banks should have in place effective internal policies, systems and controls to identify, measure, monitor, and control their credit risk concentrations. Banks should explicitly consider the extent of their credit risk concentrations in their assessment of capital adequacy under review process. These policies should cover the different forms of credit risk concentrations to which a bank may be exposed to. Such concentrations include but are not limited to:

- Significant exposures to an individual counterparty or group of related counterparty. Banks might also establish an aggregate limit for the management and control of all of its large exposures as a group;
- Credit exposures to counterparties in the same economic sector or geographic region;
- Credit exposures to counterparties whose financial performance is dependent on the same activity or commodity; and
- Indirect credit exposures arising from a bank's CRM activities (e.g. exposure to a similar type of collateral or credit protection provided by single counterparty or same collateral in cases of multiple banking).

A bank's framework for managing credit risk concentrations should be clearly documented and should include a definition of the credit risk concentrations relevant to the bank and how these concentrations and their corresponding limits are calculated. Limits should be defined in relation to a bank's capital, total assets or, where adequate measures exist, its overall risk level. A bank's management should conduct periodic stress tests of its major credit risk concentrations and review the results of those tests to identify and respond to potential changes in market conditions that could adversely impact the bank's performance.

5. Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and system or from external events. Operational risk is associated with human error, system failures and inadequate procedures and controls. It is the risk of loss arising from the potential that inadequate information system; technology failures, breaches in internal controls, fraud, unforeseen catastrophes, or other operational problems may result in unexpected losses or reputation problems. Operational risk exists in all products and business activities.

Operational risk event types that have the potential to result in substantial losses includes Internal fraud, External fraud, employment practices and workplace safety, clients, products and business practices, business disruption and system failures, damage to physical assets, and finally execution, delivery and process management. The objective of operational risk management is the same as for credit, market and liquidity risks that is to find out the extent of the financial institution's operational risk exposure; to understand what drives it, to allocate capital against it and identify trends internally and externally that would help predicting it. The management of specific operational risks is not a new practice; it has always been important for banks to try to prevent fraud, maintain the integrity of internal controls, and reduce errors in transactions processing, and so on. However, what is relatively new is the view of operational risk management as a comprehensive practice comparable to the management of credit and market risks in principles. Failure to understand and manage operational risk, which is present in virtually all banking transactions and activities, may greatly increase the likelihood that some risks will go unrecognized and uncontrolled.

6. Other Risk

Although the 'other' risks, such as reputational and strategic risk, are not easily measurable, banks are expected to take these into consideration as well while deciding on the level of capital.

2.1.4 Credit Risk Management

As the name implies, credit risk management is predicted on the existence of risk and uncertainty to leverage the earnings from lending to a borrower. Credit risk arises wherever a lender is exposed to loss from a borrower, counterparty, or an obligor who fails to honor their debt obligation as they agreed and contracted. Borrower demand credits that will be used to reinvest in their business for which they expect to earn return. At the same time, lenders or financial intermediaries supply credit to earn a return when these companies borrow. This process for extending credit has a multiplier effect on the money supply, so this is why credit is a powerful driver of our economy.

Extending credit would therefore be impractical today, if not impossible, without the events that have been brought on by deregulation, technology, and disintermediation in the financial services industry, all of which have actually changed the psychology of extending business and corporate credit. The potential systematic impact on other financial entities when one financial institution holds a significant aggregate exposure for a borrower, obligor, or counterparty is to be learned.

Likewise, when exposures reach imprudent lending limits because of high credit concentrations, the losses may become too large relative to the institutions' capital and overall risk levels and the risk of credit defaulters can also occur from exposures based on the concentrations of correlated risk factors that are related to specific risk events.

Hence the credit risk management involves; risk assessment of a single obligor and then moving on the risk measurement of an entire portfolio, operational practices and structural process for implementing and creating a sound credit environment, credit selection process that is used to evaluate new business and describe how transaction risk exposure becomes incorporated into portfolio selection risk, techniques used in fundamental credit analysis, qualifying and integrating a transaction into the credit

portfolio with the applications of credit risk management, credit rating system that have come to play a pivotal role in managing credit risk.

2.1.5 Credit Risk Governance

Governance is the act of governing. It relates to decisions that define expectations, grant power, or verify performance. It consists of either a separate process or part of management or leadership processes. These processes and systems are typically administered by a government. The World Bank (1991) defines governance as: the manner in which power is exercised in the management of a country's economic and social resources for development. In the case of a business or of a non-profit organization, governance relates to consistent management, cohesive policies, guidance, processes and decision-rights for a given area of responsibility. Corporate organizations often use the word governance to the laws and customs (rules) applying to that direction and the manner in which boards or their like direct a corporation.

Credit risk governance is similar to credit risk management. Credit risk governance is most often used by the regulatory body i.e. Central Bank. Governing body views the credit risk in controlling and monitoring aspect. The regulatory authority closely monitors the activities of the financial institutions in terms of the management policies, guidelines adopted by the licensed organizations. Governing body supervises the credit risk, market risk, operational risk mitigation measures adopted by the institutions. Thus credit risk governance is the monitoring and controlling part of the governing body in terms of credit risk management.

Table 2.1
Flow Chart of the Loan Procedure

Step 1: Loan application from the prospective clients
Step 2: Verifying the loan application and collection of required documents/ information
Step 3: Conducting personal interview with the client.
Step 4: Obtaining credit information about prospective client
Step 5: Conducting site visit.
Step 6: Preparing credit appraisal report and getting duly signed by line of lending authorities
Step 7: Issuance of offer letter with terms and conditions
Step 8: Obtaining duly signed offer letter from the prospective borrower
Step 9: Forwarding Credit Facility Report with signed offer letter to CACD for implementation

2.2 Review of Related Literature

2.2.1 Review of Basel II (2007) Related to Credit Risk

Basel II is a new international framework for determining how much capital banks should be required to hold, taking account of the risks that they take. As with the original Basel capital framework, Basel II was developed by the Basel Committee on Banking Supervision. Basel II is made up of three Pillars:-

- **Pillar 1** involves the calculation of minimum capital requirements to cover credit risk, market risk and operational risk.
- **Pillar 2** covers capital for other risks and overall capital adequacy, and
- **Pillar 3** covers disclosure.

A) Pillar I: Minimum Capital Requirement

The main goal of this pillar is to provide improved risk sensitivity in the manner that capital requirements are calculated including three main risk components: credit risk, market risk and operational risk. To calculate these components it is necessary to use advanced methodologies which make use of advanced data collection and sophisticated risk management techniques. Basel II capital requirement requires banks to take all three

kinds of risks into account while managing their credit risk. The overall regulatory requirement depends on the overall assessment of bank's different risks, mainly; market risk, credit risk and operational risk.

B) Pillar II: Supervisory Review Process

Second pillar deals with the regulatory responses to minimum capital requirement (first pillar). Moreover, it provides a concrete framework to cover all other risks that a bank may face. Some of these risks are name risk, legal risk and liquidity risk which are known as residual risks in the accord.

C) Pillar III: Market Discipline

The third pillar deals with making information available for the customers and other mentioned organization by the banks to create disclosed market. This is designed to create a fair environment for competition among the banks in the market and to protect the customers. Moreover, the supervisory committee puts eyes on the scope of application, composition of capital, adequacy of capital, risk exposures and assessment.

In Nepal, with a view of adopting the international best practices, Nepal Rastra Bank (NRB) has already expressed its intention to adopt the Basel II framework, albeit in a simplified form. In line with the international development and thorough discussion with the stakeholders, evaluation and assessment of impact studies at various phases. This framework provides the guidelines for the implementation of Basel II framework in Nepal. Reminiscent of the International convergence of capital measurements and capital standards, this framework also builds around three mutually reinforcing pillars, viz. minimum capital requirements, supervisory review process and disclosure requirements. All banks within the scope of this framework should adopt the prescribed approaches by Mid July 2008 (Fiscal Year 2065/066). In order to ensure a smooth transition to new approach prescribed by this framework, a parallel run for the whole year from Mid July 2007 (Fiscal Year 2064/065) was conducted.

2.2.2 Review of Nepal Rastra Bank Unified Directive 2069 related to Credit Risk

Nepal Rastra Bank is the central regulatory authority of Banks and Financial institutions in Nepal. Nepal Rastra Bank has published Unified Directive 2069 as a guidelines to be followed by all financial institutions in Nepal i.e. "A", "B", "C", and D class institutions

as classified by Banks and Financial institutions act (BAFIA) 2063. Unified directive contains 22 directives but we shall discuss only the directives related to credit risk as follows:-

2.2.2.1 Directive No. 1-Provisions Relating to Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is the proportion of capital fund or shareholders equity in the total risk weighted asset of a bank. In other words, it is the capital portion which is used to finance the assets. The total risk weighted assets includes both on and off balance sheet items, which has been rated with certain percentage of risk. The assets are weighted from 0% to 200% risk weight as per NRB directive 2068 in parallel with Basel II.

The following Directives with regard to the capital adequacy ratio to be maintained by a licensed institution have been issued having exercised the powers conferred by Section 79 of the Nepal Rastra Bank Act, 2002.

1. The Capital Adequacy to be maintained

Based on its risk-weight assets, a licensed institution shall have to maintain the capital fund as defined in the Unified Directives 2069. A “A” Class institution is obliged to maintain 6% of its primary Capital and 10% of Supplementary capital and in aggregate it must exceed ceiling of 10%. “B” Class and “C” Class institution are also required to maintain capital fund as prescribed.

Classification of Capital Fund

Qualifying capital consists of Tier 1 (core) capital and Tier 2 (supplementary) capital elements, net of required deductions from capital. Thus, for the purpose of calculation of regulatory capital, banks are required to classify their capital into two parts as follows;

a. Core or Primary Capital (Tier 1)

The key element of capital on which the main emphasis should be placed is the Tier 1 (core) capital, which comprises of equity capital and disclosed reserves. This key element of capital is the basis on which most market judgments of capital adequacy are made; and it has a crucial bearing on profit margins and a bank's ability to compete. The BCBS has therefore concluded that capital, for supervisory purposes, should be defined in two tiers in a way, which will have the effect of requiring at least 50% of a bank's capital base to

consist of a core element comprised of equity capital and published reserves from post-tax retained earnings. In order to rank as Tier 1, capital must be fully paid up, have no fixed servicing or dividend costs attached to it and be freely available to absorb losses ahead of general creditors. Capital also needs to have a very high degree of permanence if it is to be treated as Tier 1.

b. Supplementary Capital (Tier 2)

The Supplementary (Tier 2) Capital includes reserves which, though unpublished, have been passed through the profit and loss account and all other capital instruments eligible and acceptable for capital purposes. Elements of the Tier 2 capital will be reckoned as capital funds up to a maximum of 100 percent of Tier 1 capital arrived at, after making adjustments. In case, where the Tier 1 capital of a bank is negative, the Tier 2 capital for regulatory purposes shall be considered as zero and hence the capital fund, in such cases, shall be equal to the core capital.

2. Risk Measurement and Risk Weight

In order to be consistent with the Basel-II framework, the credit risk for the regulatory capital purpose NRB has directed the Banks and Financial Institutions to compute the risk weighted exposure by segregating the exposure in the following 11 categories:-

I) Claims on Government and Central Bank

Under this risk weight all claims on Government of Nepal and Nepal Rastra Bank shall be risk weighed at 0 % and Claims on foreign government and their central banks shall be risk-weighted on the basis of the consensus country risk scores i.e. ECA Score 0-1- 0%, 2 - 20%, 3 - 50%, 4-6 -1 00% and 7- 150% risk weight.

II) Claims on Other Official Entities

Under this category Claims on the Bank for International Settlements, the international Monetary Fund, the European Central Bank and the European Community will receive a 0% risk weight and other Multilateral Development Banks as defined by NRB directive will be eligible for a 0% risk weight. The standard risk weight for claims on other Multilateral Development Banks will be 100%. Claims on public sector entities (PSEs) 4 will be risk-weighted as per the ECA country risk scores i.e. ECA risk score 0-1- 0%, 2- 50%, 3-6- 100% and 7- 150% risk weight.

III. Claims on Banks

All claims, irrespective of currency, excluding investment in equity shares and other instruments eligible for capital funds, on domestic banks/financial institutions that fulfill Capital Adequacy Requirements will be risk weighed at 20% while for the rest, it will be 100%. Claims on a foreign bank excluding investment in equity shares and other instruments eligible for capital funds shall be risk weighed as per the ECA Country risk score subject to the floor of 20%.

IV. Claims on Corporate and Securities Firms

The risk weight for claims on domestic corporate, including claims on insurance companies and securities firm will be 100%. The domestic corporate includes all firms and companies incorporated in Nepal as per prevailing Acts and regulations. The claims on foreign corporate shall be risk weighed as per the ECA Country risk score subject to the floor of 20% .

V. Claims on Regulatory Retail Portfolio

Claims that qualify all criteria listed below may be considered as regulatory retail portfolio and risk weighed at 75%, except for past due loans. Such claims however, have to be in strict compliance with the Product paper developed by the bank and approved by their respective board of directors. Banks which have claims that fulfill all criterion except for granularity may risk weigh those claims at 100%.

VI. Claims Secured by Residential Properties

Lending to individuals meant for acquiring or developing residential property which are fully secured by mortgages on residential property, that is or will be occupied by the borrower or that is rented will be risk-weighted at 60%. The claims in order to be eligible for this category have to be in strict compliance with this product paper. Where the loan is not fully secured, such claims have to risk weighed at 150% and where claims secured by residential properties are or have been in past due at any point of time during the last two years, they shall be risk-weighted at 100%, net of specific provisions.

VII. Claims Secured by Commercial Real Estate

Claims secured by mortgages on commercial real estate, except past due, shall be risk weighed at 100%. Commercial real estate hereby refers to mortgage of Office buildings,

retail space, multi-purpose commercial premises, multi-family residential buildings, multitenanted commercial premises, industrial or warehouse space, hotels, land acquisition, development and construction etc.

VIII. Past Due Claims

Any loan, except for claim secured by residential property, which is or has been past due at any point of time during the last two years, will be risk-weighted at 150% net of specific provision.

IX. High Risk Claims

Venture capital and private equity investments shall be provided 150% risk weight Exposures on Personal loan in excess of the threshold of regulatory retail portfolio and lending against securities (bonds and shares) shall attract a risk weight of 150%. Similarly, exposures on credit card shall also warrant a risk weight of 150%. Investments in the equity and other capital instruments of institutions, which are not listed in the stock exchange and have not been deducted from Tier 1 capital, shall be risk weighed at 150% net of provisions. Investments in the equity and other capital instruments of institutions, which are listed in the stock exchange and have not been deducted from Tier 1 capital, shall be risk weighed at 100% net of provisions. The claims which are not fully secured or are only backed up by personal guarantee shall attract 150% risk weight. Where loan cannot be segregated/or identified as regulatory retail portfolio or qualifying residential mortgage loan or under other categories, it shall be risk weighed at 150%.

X. Other Assets

Interest receivable/claim on government securities will be risk-weighted at 0%. Investments in equity or regulatory capital instruments issued by securities firms will be risk-weighted at 100%. Cash in transit and other cash items in the process of collection will be risk-weighted at 20%. For this purpose, cash items shall include Cheque, Draft, and Travellers Cheques. Fictitious assets that have not been deducted from Tier 1 capital shall be risk weighed at 100%. All Other assets will be risk-weighted at 100% net of specific provision.

XI. Off Balance Sheet Items

- i. Off-balance sheet items under the simplified standardized approach will be converted into equivalent risk weight exposure using risk weight as follows:

Table 2.2
Off Balance Sheet Exposure

Off Balance Sheet Exposure	Risk Weight
Any commitments those are unconditionally cancelable at any time by the bank without prior notice, or that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness (for example bills under collection)	0%
Forward exchange contracts.	10%
Short Term Trade-related contingencies	20%
Undertaking to provide a commitment on an off-balance sheet items	20%
Unsettled10 securities and foreign exchange transactions between bank to bank and between bank and customer	20%
Long Term Trade-related contingencies	50%
Performance-related contingencies	50%
Long term irrevocable Credit Commitments	50%
Short term irrevocable Credit Commitments	20%
Repurchase agreements, securities lending, securities borrowing, reverse repurchase agreements and equivalent transactions	100%
Direct credit substitutes	100%
Unpaid portion of partly paid shares and securities	100%
Other Contingent Liabilities	100%

2.2.2.2 Directive No. 2-Provisions Relating to Classification of Loans/Advances and Loan Losses

Having exercised the powers conferred by Section 79 of the Nepal Rastra Bank Act, 2002, the following Directives have been issued with regard to classification of credit/advances and provisions to be made for its possible loss by the institutions obtaining licenses from this Bank to carry out financial transactions.

1. Classification of Loans/Advances

Entire loans and advances extended by a licensed institution have to be classified as follows based on expiry of the deadline of repayment of the principal and interest of such loans/advances:-

- a. **Pass:** Loans/advances which have not overdue and which are overdue by a period up to three months.
- b. **Sub-standard:** Loans/advances which are overdue by a period from three months to a maximum period of six months.
- c. **Doubtful:** Loans/advances which are overdue by a period from six-months to a maximum period of one year.
- d. **Loss/Bad:** Loans/advances which are overdue by a period of more than one year. The loans which are in pass class and which have been rescheduled/restructured are called as "the performing loan", and the sub-standard, doubtful and loss categories are called "non-performing loans".

2. Additional Provisions Relating to Pass Loans

- I. Loan against gold and silver, fixed deposit receipts, securities of Nepal Government, bonds of Nepal Rastra Bank may be classified under the Pass category. But provided that the cases of the loans/advances against the fixed receipts or Government of Nepal securities or Nepal Rastra Bank bond as the additional collateral, such loans and advances shall also have to be classified in accordance with the directive referred to into Point No. 1 above.
- II. The working capital loan having the deadline of up to one year for repayment may be included in the pass loan class. In case the interest to be received from the loans of working capital nature is not regular, such loans have to be classified on the basis of the duration of interest to be due.

3. Additional Provisions Relating to Loss Loans

In the below mentioned conditions the loans/advances should be classified under the Loss/Bad category:-

- If the market price of the collateral cannot secure the loans;
- If the debtor is bankrupt or has been declared to be bankrupt;

- If the debtor disappears or is not identified;
- If the Non-funded facilities are converted into the funded loan and the Loan is not recovered within 90 days of their conversion.
- If the Loan is found to be misused by a supervisor in the course of inspection or by an auditor in the course of auditing; If the loan could not be recovered within six months of the date of auction process or a case is pending at a court under the recovery process;
- If the Loan is provided to a debtor who has been enlisted in the black-list of Credit Information Bureau Ltd;
- If the Project/business is not in a condition to be operated or project or business is not in operation;
- If the credit card loan is not written off within 90 days from the date of expiry of the deadline; and
- If the deadline of a trust-receipt loan expires.

4. Additional Provisions Relating to Term-Loan

In the case of Term Loan having maturity more than 1 year the loan shall be classified in accordance with the overdue period as classified above.

5. Provisions Relating to Rescheduling and Restructuring of Loans

In case of rescheduling and restructuring of Loans, the Banks and Financial Institution can restructure and reschedule the loan subject to payment of 25% interest accrued till date and by making the provisioning of 12.5% and approval from Board or higher authority.

In addition to this NRB has made issued other following provisions regarding the classifications of Loans/advances and loan loss provisioning:-

- Additional Provisions Relating to Gold/Silver Loan
- Principal and Interest not allowed to be recovered crossing the overdraft limit:
- Provisions Relating to Grace Period
- Conditions for Adjustment in loan loss provision
- Loss Provisions and Auction of Non-banking assets
- Provisions Relating to Credit Sale/Purchase/Repurchase and Takeover

- Prohibition on advancing loan and accepting deposit based on financial guarantee

6. Provision to be maintained for Loan Loss

For the loans and bills purchase classified according to these Directives, the following loan loss provision shall be maintained based on the remaining amount of principal:

Loan Classification	Minimum Provision for Loan Loss
Pass	1 percent
Sub-standard	25 percent
Doubtful	50 percent
Loss loan/the loan extended	100 percent

2.2.2.3 Directive No. 3 Provisions Relating to Single Borrower (Obligor) and Limitation of the Sectoral Credit and Facilities

Having exercised the powers conferred by Section 79 of the Nepal Rastra Bank Act, 2002, the following Directives have been issued with regard to advancing loans to the single person, firm, company or a group of customers having mutual relationship and with regard to loans to be extended only in one area of economy.

A. Fixation of Limit on Credit and Facilities

Licensed Institution may extend to a single borrower or group of related borrowers the amount of fund-based loans and advances up to 25 percent of its Core capital fund and non fund-based off-balance sheet facilities like letters of credit, guarantees, acceptances, commitments up to 50 percent of its Core capital fund. However in the below mentioned areas the same regulation is not applied:-

- The institution may extend the facilities up to 30% in maximum for the Loans being provided to export sector, small and medium industries, pharmaceutical industries, agricultural sector, tourism, cement industries, iron industries and other production-oriented industries.
- Investment in a hydropower project, transmission line and cable car projects and other national prioritized sector the institutions may advance to 50% of the core capital both for the fund-based loan and non fund-based facilities.

- No credit limit is applied against the Loans and advances provided by fully securing it by Fixed deposit receipt, government securities and government bonds, guarantee provided by multilateral banks, International Monetary fund.
- No Credit Limit is applied for Loan/advances and facilities provided to the following entities of Nepal Government.
 - a. Nepal Oil Corporation
 - b. Nepal Food Corporation

B. Relating to Sectoral Credit

Nepal Rastra Bank has provided the clear guidelines and limit for granting the Loan into different sectors. Credit Concentration risk is one of the major challenges of the Banks so NRB has fixed the below mentioned limitations related to the sector wise lending:-

I. Provisions relating to Housing Land and Real Estate Loans

As per NRB Unified Directive No. 3/068 Clause 11, Sub-Clause 4 for FY 2068/69, following major provisions have been made for real estate sector:

Table 2.3
Real Estate Lending

S.No.	Particular	Threshold Limit	
		2068 Ashadh End	2070 Ashadh End
1	Residential Real Estate Loan (except personal Home Loan up to NPR 10.00	up to 30% of total loan	up to 25% of total loan
2	Business Complex and Residential Apartment Construction Loan		
3	Income Generating Commercial Complex		
4	Other Real Estate Loan (Including Land Purchase and Plotting Loan)	up to 15% of total loan	up to 10% of total loan
	Total Real Estate Loan	up to 30% of total loan	up to 25% of total loan

- a. The lending against land/building and real estate securities is restricted to 60 percent of fair market value of the properties. In case of residential real estate, lending is allowed up to 2/3 of the fair market value of the property.
- b. Licensed institution shall not be allowed to restructure/renew the loan provided for real estate purpose/product by exceeding the tenure wise limits prescribed

while providing the loan. However, provided that without prejudice to the letter and spirit of these Directives and remaining other things the same, in case the borrower availing real estate loan pays the entire accrued interests, the facility can be renewed till Ashad end, 2070.

- c. In case the real estate loans provided after issuance of these Directives (on 2066/09/02) are not brought under the limit fixed for the 2068 Ashadh end and 2069 Ashadh end, it shall be deemed to be the violation of these Directives. In such case, risk weightage of 150% shall be provided on the real estate/residential housing loan exceeding the limit.

II. Provisions for lending in agriculture and Energy sector

Licensed “A” class institution must lend 10% of its total loan and advances in Agriculture and Hydropower sector by Asad End 2071 i.e. by increasing annually 2% from Asad End 2068.

2.2.2.4 Directive No. -6 Provisions Relating to Good Corporate Governance

Corporate Governance has been a contemporary issue today in financial sector of Nepal. Many Risks has been created due to the lack of corporate Governance. Violence of Corporate governance has created the present major problems in Nepalese Banking sector. Credit risk is also a part of lack of corporate governance. NRB thus has been strict in this issue. Nepal Rastra Bank has laid different provision for good governance in Financial sector as mentioned below:-

A. Provision Relating to Code of Conduct and Good Governance

Since the licensed banks and financial institutions have roles in maintaining good governance, each of them shall have to formulate code of conduct in their respective institutions according to spirits of the Good Governance Act and to enforce it. The major provisions of corporate governance relating to credit risks are:-

- Director, Chief Executive, Auditor, Board Secretary of Bank and financial institution or persons directly involved in management and accounting activities of bank and financial institution or their family members or by organization/entity owned/controlled by them during the tenure of holding such position or up to one year from the date of retirement are not allowed to purchase/sell of securities of the

concerned bank and financial institution and its subsidiaries, to pledge or accept or give in gift securities of the concerned bank and financial institution and its subsidiaries.

- Where the loan has been extended against pledged of shares prior to issue of this circular, such pledge shall be released by the mid-July, 2009 or maturity date, whichever is earlier by complying all necessary procedures. Otherwise, it shall be as follows:-
 - a. The concerned bank or financial institution shall give a public notice to the concerned person or entity to repay the loan within 35 days.
 - b. Upon service of notice according to (a) above, the concerned bank or financial institution shall recover the loan amount from the concerned person or entity within the stipulated time period.
 - c. Where compliance according to (b) is defiant, loan shall be recovered by selling such pledged securities through Stock Exchange within next 7 days.
 - d. If the loan is not recovered according to clause (c), 100 percent provision shall be against such exposures.

Other major provisions relating to corporate governance are as listed below:-

- Directors of the Licensed Institution to Observe Minimum Acceptable Standard of Code of Conduct
- Directors not to be Involved in Activities against the Interest of the Licensed Institution
- Prohibition for part-time working
- Prohibition to become Director of more than one licensed institution
- Prohibition to hold Trusteeships
- Prohibition to misuse the position
- Records and Reports to be maintained Complete and Accurate
- Maintenance of Confidentiality
- Fair and Equal Treatment
- Written Information to be provided
- Report to be submitted

- Duties and Responsibilities of Board of Directors
- Appointment of Chief Executive
- Employees shall have to maintain the minimum acceptable standard of code of-conduct
- Employees not to engage in the activities against the interest of the licensed institution
- Arrangement regarding eligibility of employees to become Director
- Prohibition to misuse of information
- Prohibition to Extend Credit to the Directors, Shareholders, Employees and Firms Related to Them

2.2.2.5 Directive No. 11 Provisions Relating to Consortium Financing

Nepal Rastra Banks has made provision for financing the Loan and advances on the consortium basis. Consortium means forming a group of the institutions and lending on the pro-rata basis as decided at the time of entering into the consortium. The firm/company enjoying credit facility under consortium financing has to carry out banking transaction only with the lead bank and participant banks. This provision is equally applicable in case of loose consortium as well. Provided that this cause shall not be deemed to have hindered to get the new member to enter after formation of the consortium grants with the consent of the group. Loose consortium means the credit facilities provided/to be provided by two or more banks and financial institutions to a project without forming a consortium group but maintaining security on a pari pasu basis.

2.2.2.6 Directive No. 12 Provisions Relating to Credit Information and Blacklisting

Banks and Financial Institutions must obtain the Credit Information report of the Borrower prior providing the Loan of above 1 million from Credit Information Centre (CIC). As well as the banks should report the details of Borrower within fifteen days of the date of completion of the trimester of every fiscal year until the loan is repaid. The Banks and Financial Institutions are obliged to obtain the credit information prior to extension or renewal, restructuring or rescheduling of loans of rupees 1 Million or more. Once the situation referred to in these Directives prevails, the concerned institution may recommend the Credit Information Bureau Ltd. To blacklist the debtors who have availed

the credit, advances and facilities of whatsoever amount from that licensed institution but have not repaid that amount. The Licensed institutions cannot grant Loan to the blacklisted borrowers/obligors, shareholders, personal guarantors. In case any bank or financial institution extends a credit facility to any blacklisted individual, firm, company or corporate body, concerned bank or financial institution shall, under Section 99 (1) of the Nepal Rastra Bank Act, 2002, be fined the amount equal to the amount of the credit extended and has to maintain 100 percent loan loss provision against the loan granted to blacklisted customers.

2.2.2.7 Directive No. 17 Provisions Relating to Lending to Deprived Sector

Nepal Rastra bank has directed the commercial banks, development banks and finance companies to lend 3.5 percent, 3.0 percent and 2.5 percent of their total loans to the deprived sector respectively. The respective ratios were 3 percent, 2.5 percent and 2 percent earlier. Such ratio will be increased at an annual rate of 0.5 percentage point during the next three years in order to increase the contribution of financial institutions in the income and employment generation activities of the deprived sector. No change has been made on the existing provision that restricts banks and financial institutions to deposit the amount provided for the purpose of deprived sector lending into other banks and financial institutions to earn interest. The ceiling on loans to deprived sector or micro-credit provided by class 'D' microfinance development banks against group/individual guarantee with or without collateral has been maintained at Rs. 90 thousand and that for micro-enterprise at Rs. 200 thousand as earlier. However, while extending credit up to the specified ceiling of Rs. 200 thousands, the loan amount must not exceed one-third of total credit to be provided to the deprived sector. In addition, the ceiling of deprived sector loan provided by class 'A', 'B' and 'C' banks and financial institutions to group member/individual against group/individual guarantee and classified as a pass loan for last two years has also been maintained at Rs. 90 thousand and that for micro-enterprise has been maintained at Rs. 200 thousand as earlier.

2.2.3 Corporate Governance

Corporate governance consists of the set of processes, customs, policies, laws and institutions affecting the way people direct administer or control a corporation. Corporate

governance also includes the relationships among the many players involved (the stakeholders) and the corporate goals. The principal players include the shareholders, management, and the board of directors. Other stakeholders include employees, suppliers, customers, banks and other lenders, regulators, the environment and the community at large (Eells, 1960).

Corporate governance is a combination of corporate policies and best practices adopted by the corporate bodies to achieve its objectives in relation to their stakeholders. It is also the field of economics, which studies the many issues arising from the separation from ownership and control. The fundamental objective of corporate governance reforms is to enhance transparency and transparency enhances accountability. It is widely recognized that transparency enhances trust among the major players within the governance framework. Various definitions and principles have been introduced to stabilize the corporate governance among corporate entities. The definition presented by some institution is presented below.

- Corporate governance is the system by which companies are directed and controlled.
- Set of relationships between a company's management, its boards, its shareholders and other stake holders.

In brief, corporate governance is a set of process an entity's culture, policies, laws and institutional value that affect the way a corporation is directed, administrated or controlled. It is a combination of corporate policies and best practices adopted by corporate bodies in achieving its objectives in relation to their stakeholders. It aims to protect shareholder's rights, to enhance disclosure and transparency, to facilitate effective functioning of the board and to provide an efficient legal and regulatory enforcement framework. It addresses the principal/agency problem through a mix of company law, stock exchange rules and sub regulatory codes. It arises from high profile corporate scandals, globalization and increased investor activism.

The vast majority of banks lack an enterprise-wide view of risk. Organizational silos, decentralization of resources and decision making, poorly integrated systems, inadequate forecasting and lack of transparent reporting represent the main barriers. In the past

decade however, as a result of regulatory focus through Basel II as well as publicized risk management failure, banks have increasingly applied resources to developing risk management capability. The majority of banks of all sizes have set up a governance structure to span the main risks. The typical structure is based on a distributed risk function. This structure generally consists of; the board of directors; various committees at board and management levels (depending on the scale and sophistication of the bank); a centralized risk management function – usually responsible for policy formulation and oversight; and risk management functions located in each business responsible for the day to day oversight of risks.

2.2.3.1 Significance of Corporate Governance in Banking Sector

Corporate governance is equally significance to all types of corporate institution. Furthermore it is very crucial and essential element for the banking system because bank and financial institutions depends on the Other People's Money. There may be a gap among major stakeholder like owners, depositors and management. Very limited people have a right to access in resources and decision. Due to the lack of transparency and adequate control mechanism, there may be the chance of vested interest and moral hazard problems. It is a universal fact that the higher degree of transparency contributes towards the maximizing shareholders value and ensuring the fairness to rest of the shareholders. Corporate governance also enhances performance of the corporation by motivating manager to maximize returns on investment, raising operational efficiencies and ensuring long- term productive growth.

Following key points help to emphasis the significance of corporate governance especially in the banking sector.

- Banking system stability is important for economic growth,
- Good corporate governance is required in banks to achieve good Corporate in other firms.
- Banks have wider stakeholders-government, regulators and most importantly depositors.
- Promotes market confidence, helps to attract additional capital, and fosters market discipline through good disclosure and transparency.

- Helps ensure that company takes into account the interest of not only of a group of people but also of the communities within which they operate. Those actions in turn help to ensure that FIs are operating for the benefit of society as a whole.
- Good corporate governance practices can strongly contribute to financial market development and financial stability.
- Nepal implemented the Basel II from 2008 July in banking sector and good corporate governance forms important part of Basel II. Therefore for complying the provision under Basel II is very essential for banking sector.

2.2.3.2 Principles of Corporate Governance in Banking Sector

BIS (Bank for International Settlement) OECD (Organization of Economic Co-operation and Development) and other different financial institutions has developed and presented the various guidelines on enhancing corporate governance in banking sector but they do not diverge from each other, OECD focus on the following critical elements of desirable corporate Governance for the banks.

- Board members should be qualified for their positions, have a clear understanding of their role in corporate governance and be able to exercise sound judgment about the affairs of the bank.
- The board of directors should approve and oversee the bank's strategic objectives and corporate values that are communicated throughout the banking organization.
- The board of directors should set and enforce clear lines of responsibility throughout the organization.
- The board should ensure that there is appropriate oversight by senior management consistent with board policy
- The board and senior management should effectively utilize the work conducted by the internal audit function, external auditors, and internal control functions.
- The board should ensure that compensation policies and practices are consistent with the bank's corporate culture, long-term objectives and strategy, and control environment
- The bank should be governed in a transparent manner.

- The board and senior management should understand the bank’s operational structure, including where the bank operates in jurisdictions, or through structures, that impede transparency (“know-your structure”).

2.2.4 Existing Laws and Regulations

Banking system of Nepal is gearing up for different business and economic environment. Nepal Government and central bank are working to develop transparent, competitive and strong financial sector. Till date, there have been several efforts towards building regulatory mechanism for corporate governance. Among those several efforts following are the acts and regulations, which provide necessary guidelines to maintain corporate governance in the bank and financial institutions.

- a) Banks and Financial Institutions Act 2063
- b) Unified Directive (2069) issued by the NRB
- c) Companies Act 2063

2.2.4.1 Major Provision of Banks and Financial Institutions Act 2063 related to Corporate Governance

a. Conflict of Interest and Transparency

- Section 48-Restriction to give loans to promoter, director, executive officer etc
- Restriction on dealing with shares by the directors, Officers of the Bank
- Disclosure requirement for directors regarding conflict in appointment of auditors, shareholding by family members, transactions between bank and family members (s.22)
- Directors not to take personal benefit (s.24)
- Disqualification of auditors and duty of the auditors (s.61 and s.63)
- Remuneration of directors to be as provided in the articles of association (s.21)

b. Competent Key Personnel

- Qualification of directors and chief executive officers (s.18, s.26)
- Requirement to appoint professional director (s.13)

2.2.4.2 Major Provision of Company Act 2063 related to Corporate Governance

I. Conflict of Interest and Transparency

- Requirement to give beneficial interest on the shares (s.47)
- Information required to be given on becoming substantial shareholder (s.50)
- Shareholders having conflict are not qualified to vote in general meetings (s.70)
- Director required to give information about transaction between company and him/her or close relatives (s. 92)
- Approval of general meeting required to enter transaction between company and director/its close relatives (s.93)
- Restriction on power of board to enter certain transaction (s. 105)
- Restriction to give loans to directors and officers (s.101)
- Financial disclosures to the shareholders (s.109)

II. Directors

- Directors are made personally liable for any breach of the Act
- Directors have fiduciary duty to act in the best interest of the company (s.99)
- Directors are specific duty not to exceed their powers (s.103)
- Requirement to appoint independent directors by public companies (s. 86)
- Directors who breach reporting requirement under the Act are disqualified to become director (s.89).

III. Audit

- Listed companies having paid up capital of more than Rs. 3 crores need to have audit committee
- An auditor is disqualified to be appointed for three consecutive years. (111)
- A person working full time, or his/her partners are disqualified to be appointed as auditor (112)

IV. Shareholders' Protection

- Shareholder have right to inspect books of the company
- Shareholders can sue on behalf of the company. (s.140)
- Shareholders can request to appoint investigation officer (s.121)

- Can prevent directors from exceeding their powers. (s.138)

2.2.5 Empirical Findings

Credit risk is the current and prospective risk to earnings or capital arising from an obligor's failure to meet the terms of any contract with the bank or otherwise to perform as agreed. Credit risk is found in all activities in which success depends on counterparty, issuers, or borrower performance. It arises any time bank funds are extended, committed, invested, or otherwise exposed through actual or implied contractual agreements, whether reflected on or off the balance sheet. Thus risk is determined by factor extraneous to the bank such as general unemployment levels, changing socio-economic conditions, debtors' attitudes and political issues.

The most happening topic of risk management in commercial banks has been credit risk management. Many professors, researchers, scholars, Banks and Financial Institution, regulator authority has conducted research for effective credit risk management. Many articles in journals, research papers have been published on this topic. Thus in this research, Researcher has attempted to overview different such related articles, journals, research paper and books published internationally and nationally.

Credit risk according to Basel Committee of Banking Supervision (BCBS) (2001) is the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). Credit events usually include events such as bankruptcy, failure to pay a due obligation, repudiation/moratorium or credit rating change and restructure. Basel Committee on Banking Supervision- BCBS (1999) defined credit risk as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. BCBS (1999) observed that banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transaction. BCBS (1982) stated that lending involves a number of risks. In addition to risk related to the creditworthiness of the borrower, there are others including funding risk, interest rate risk, clearing risk and foreign exchange risk. International lending also involves country risk. BCBS (2006)

observed that historical experience shows that concentration of credit risk in asset portfolios has been one of the major causes of bank distress. This is true both for individual institutions as well as banking systems at large. BCBS (1999) asserts that loans are the largest and most obvious source of credit risk, while others are found on the various activities that the bank involved itself with. Therefore, it is a requirement for every bank worldwide to be aware of the need to identify measure, monitor and control credit risk while also determining how credit risks could be lowered. This means that a bank should hold adequate capital against these risks and that they are adequately compensated for risks incurred. This is stipulated in Basel II, which regulates banks about how much capital they need to put aside to guide against these types of financial and operational risks they face.

The Basel Committee's capital adequacy guidelines aim to encourage global banking supervisor's to promote sound practices for managing credit risk. A comprehensive list of procedures and recommendations by the Basel II framework can be found in Basel II: International Convergence of capital measurements and capital standards: A revised framework, Bank for International settlement. The three major pillar includes minimum capital requirement, supervisory review process and market discipline. Due to the importance of credit risk management approaches, Claessens, Krahen and Lang (2005) that the Basel II proposal is to encourage banks to upgrade these practices and banks with sufficiently sophisticated risk measurement and management systems have more flexibility to use their own internal systems to determine regulatory capital minimum. As well as illustrated by the theoretical model of O'Brien (1983) and recently modified to better reflect current practices , a set of guidelines is released to promote better understanding of credit agreements to assist banking industries to improve their banking services. These guidelines include full disclosure of credit history, independent credit analysis, legal considerations, sharing credit information between agents, and prompt response to the problems. Based on study by Wu and Huang (2007) top management support is most important for risk management and mechanism to be successful. Swarens (1990) suggested that the most pervasive area of risk is an overly aggressive lending practice. It is dangerous practice to extend the lending term beyond the useful life of the corresponding collateral. Besides that giving out the loan to the borrowers who are

already overloaded with debt or possess unfavorable credit history can expose banks to unnecessary defaults and credit risk. In order to reduce these risks, banks need to take into consideration some applicants' particular such as debt income ratio, business history and performance record, credit history, and for individual loan applicants their time on the job or length of time at residence. In the summary, the important elements of managing risk include credit culture, credit criteria, diversification, proper human resource development, past track record of the borrower, setting standards and rewarding successes (Wesley 1993). By taking into consideration all the elements above banks could reduce risk and minimize their bottom line.

Brownbridge (1998) claimed that the single biggest contributor to the bad loans of many of the failed local banks was insider lending. He further observed that the second major factor contributing to bank failure were the high interest rates charged to borrowers operating in the high-risk. The most profound impact of high non-performing loans in banks portfolio is reduction in the bank profitability especially when it comes to disposals.

Kim, Daesik and Santomero (1988), suggest that bank risk taking has pervasive effects on bank profits and safety. They assert that the profitability of a bank depends on its ability to foresee, avoid and monitor risks, possible to cover losses brought about by risk arisen. This has the net effect of increasing the ratio of substandard credits in the bank's credit portfolio and decreasing the bank's profitability. The banks supervisors are well aware of this problem, it is however very difficult to persuade bank managers to follow more prudent credit policies during an economic upturn, especially in a highly competitive environment. They claim that even conservative managers might find market pressure for higher profits very difficult to overcome.

On the Research Article at Risk Management Forum held at the Asian Development Bank Thailand Resident Mission in Bangkok on 26–28 November 2008, the consultant has stated the credit risk management as a major cause of serious banking problems that is directly related to credit standard of the borrowers and counter parties. The main research findings focused on:

- the measurement of credit risk;

- credit controls and risk administration, including monitoring compliance with credit risk limits; and,
- Establishment of regulatory / economic capital required to support credit risk.

They stated that Basel II framework provides for the discrete modeling and measurement of credit risk. The shortcomings in the 1988 Basel Accord have been addressed with an internal ratings based approach (both Foundation and Advanced) allowable under Basel II. As with Market risk, a Standardized approach is also allowable - banks and supervisors can select approaches that are most appropriate for their operations and financial markets infrastructure. Moving beyond the Standardized approach requires heavy investment in data sourcing and data quality, the cost of which is arguably offset by the reduced requirement for capital support. However, banks should not just look at this aspect when determining the approach to be adopted. They should also consider the benefits from enhanced data and information that can be leveraged to serve the business.

Jaodekar and Benjamin (2001) in their article “Credit risk” in The Economic Times has stated that within internal ratings based approach recommended by the Basel committee would form the basis for a sophisticated risk management system for banks. A key element of the Basel committee's proposed new capital accord is the use of a bank's internal credit risk ratings to calculate the minimum regulatory capital it would need to set aside for credit risk called the Internal Ratings Based (IRB) approach. It links capital adequacy to the rating of the assets in a bank's books. The IRB regime is likely to make regulatory capital more consistent with economic capital (the capital required by a bank to cover unexpected losses, as an insurance against insolvency) this is likely to reduce the amount of regulatory capital banks will be required to set against credit risk inherent transactions and portfolios.. There must be enough credit grades in a bank's internal ratings system to achieve a fine distinction of the default risk of the various counterparties. The credit risk of an exposure over a given horizon involves the probability of default and the fraction of the exposure value that is likely to be lost in the event of default or loss given default. While designing the operating framework, banks should include the organizational division of responsibility for rating (relationship manager, credit staff, etc), the nature of reviews to detect errors and inconsistencies, the location of

ultimate authority over rating assignment, the role of models in the rating process and the specificity of rating definitions. Banks must have a mechanism of back testing the rating system and the loss characteristics of their internal ratings. This is essential to evaluate the accuracy and consistency of the rating criteria, accurately price assets and analyze profitability and performance of the portfolio, monitor the structure and migration of the loan portfolio and provide an input to credit risk models and economic capital allocation process. Construction and validation of a robust internal credit risk rating system is just the first step toward sophisticated credit risk management. For an ambitious bank, the IRB approach promoted by Basel will form the platform for risk management measures that are more sophisticated such as risk based performance measurement.

Raghavan (2005) in his article in the *The Economic Times* “Credit Risk as well as Credit Risk Management in Commercial Banks” has stated that Banks are risk averse to lending, owing to lack of proper credit information mechanism, high transaction cost, weak enforcement of collateral, bankruptcy framework, high Non Performing Assets (NPA), directed credit issues, staff accountability concept, etc. Laid back banking approach and related structural problems in the banks needs to be addressed. The explosive growth in the markets for securitized assets and for credit derivatives has offered bank new ways and means in managing as well as transferring credit risk. In many Banks, it is believed that loans are akin to Indian marriages, where divorce is not feasible even when it is clear that the relationship is incompatible. Despite detailed technical analysis that supports a credit decision, it is the credit officer who decides on a proposal based on his own judgment. However, when it comes to rating of a borrower, the system and model in place should be such that whoever in the bank rate the borrower, the result should be same in at least 90% of the cases. Banks need both the information and system to rate the level of risk in a credit proposal. In order to achieve this, credit officers should work as a team and share learning with an institutional commitment to develop capabilities through ongoing and well designed credit training. Bank should lend according to its appetite within the need-based assessment of the credit requirement of the borrower.

Santomero (1996) in his article “Commercial Bank risk management: an analysis of the process”, has stated that credit risk arises from non-performance by a borrower. That may arise from either an inability or an unwillingness to perform in the pre-committed

contracted manner. The credit risk can affect the lender holding the loan contract, as well as other lenders to the creditor. Therefore, the financial condition of the borrower as well as the current value of any underlying collateral is of considerable interest to its bank. The real risk from credit is the deviation of portfolio performance from its expected value. Accordingly, credit risk is diversifiable but difficult to eliminate completely. This is because a portion of the default risk may, in fact, result from the systematic risk outlined above. In addition, the idiosyncratic nature of some portion of these losses remains a problem for creditors in spite of the beneficial effect of diversification on total uncertainty. This is particularly true for banks that lend in local markets and ones that take on highly illiquid assets. In such cases the credit risk is not easily transferred, and accurate estimates of loss are difficult to obtain.

Adhikary, Pant and Dhungana (2007) on their study “Study on Financial Sector Reform in Nepal” 2007 has stated in Nepal until 2001, two third of the Basel Core Principles for Effective Banking Supervision were not implemented in the financial system. At the outset, the governing act of the NRB imposed limitations as it was designed in 1955 for a central bank operating in a government controlled economy, and supervising government-owned banks. The central bank had limited authority for effectively managing monetary policy, improving the financial infrastructure, strengthening and improving financial markets and their supervision, and facilitating the growth of the financial sector. Therefore, NRB was failing to comply fully with Basel Core Principles while the preconditions required by the Basel Committee hardly existed in Nepal. Therefore, at the first stage to strengthen the regulative regime, seven new banking regulations were issued in March-April 2001 to address weaknesses of the banking system. In the meantime, KPMG Barents Group made a comprehensive assessment of NBL and RBB, in June 2000 and found serious shortfalls in all aspects of the governance, management, and operations of these banks. The KPMG report concluded that the banks' loan assets are highly overstated and extremely risky and that, as a consequence, the banks was found technically insolvent. The report estimated the negative net worth of NBL at NRs 6-10 billion (US\$85 to 142 million) and that of RBB at NRs 14-18 billion (US\$200 to 255 million). This was serious as RBB and NBL, the two largest banks, accounted for 41.9% of the commercial banking deposits, 48.3% of the loans and

advances, and 47.9 percent of the total sources and use of the commercial banking system as in mid-July 2001. At the time, the stock of loan losses within these two banks was estimated to be between NRs 25 to 29 billion (US\$368 to US\$426 million). This represented 7.5 to 8.6 percent of Nepal's GDP and between 40-46 percent of Nepal's budget.

Macey and O'Hara (2003) argue for greater formal legal recognition of the fiduciary duty of banks to depositors and clarification of the relationship between that duty and the banks' fiduciary duty to bank shareholders (and others creditors, such as bank bondholders). Essentially, the boards of directors should be made responsible for the fulfillment of the fiduciary duty to depositors and adequate internal controls should be put in place. Supervisors and external auditors then primarily have an oversight role. Levine (2003) tentatively comes down in favor of less regulation and better information and incentives for private agents to exert governance over banks. He concludes that the good corporate governance of banks required building sound legal and bankruptcy systems, which he notes can be lengthy processes. He also finds that evidence tends to support the establishment of independent supervisory authorities with well defined objectives.

Mullineux (2006) concludes that the good corporate governance of banks requires good prudential regulation and attention to conflicts of interest and competition issues, especially given the clear information advantage of banks over their retail customers. It will be facilitated by more disclosure of properly audited and internationally comparable accounts. The incentive to collect and process good quality information should not be diminished by free-rider problems, however. Common principals of prudential regulation, corporate governance and bankruptcy should form the basis of common codes ahead of agreement on more detailed common laws and rules, which will eventually be required in order to achieve a genuinely level global playing field. It should also be noted, however, that as Basel II is progressively adopted by developing and emerging market economies, they will be induced to enhance their corporate governance codes, internal controls, auditing procedures and bankruptcy laws in order to implement its risk-based approach.

2.2.6 Review of Related Unpublished Thesis

Researcher has selected the related thesis for review from Shaker Dev Campus library and T.U Central Library on sampling basis. Some finding and conclusions of the studies done by other researcher have been mentioned hereunder.

Shrestha (2009) in her thesis “Corporate Governance in Financial Institutions of Nepal” has studied present scenario of corporate governance and their effect in credit risk management in financial institutions of Nepal. Lack of transparency is a major source of bad governance in the institution. Management and board members should be responsible for maintaining transparency, accountability, social responsibility which is the components for good corporate governance. Good governance practices should be followed than will reduce the managerial deficiencies, misallocation of resources, credit risk management and negative impact on stakeholders. Thus, financial institutions should follow all the circulars, regulations provided by the regulatory authority i.e. Nepal Rastra Bank. Basel Framework in risk management should be implemented.

Singh (2010) in his thesis “A study of Corporate Governance on listed Banking and Financial Institutions” has highlighted the concerns on credit risk management in the Banks and FIs due to the corporate governance. His study relates that banks have relatively good corporate governance than other corporate institutions in Nepal. Annual General Meeting (AGM) is the effective forum for controlling corporate governance. Regulatory authority control towards risk management and corporate governance should be effective. Competition in the Financial Market can increase the strong corporate governance and credit risk management. Board Members and Management team should be qualified. Nepal Stock Exchange (NEPSE) can provide correction to the institution for effective corporate governance and credit risk management.

Researcher then concluded and recommended that management culture should be committed and responsible and also the organizational and managerial ethics should be established. Awareness in corporate culture should be established. Audit Committee and Risk Management Committee in the Banks and Financial Institutions should be strengthened.

Maharjan (2010) in his thesis “Credit Risk Assessment under Retail and Corporate Financing by Commercial Banks of Nepal”, study of Himalayan Bank Ltd (HBL) and Nepal Investment Bank Ltd (NIBL) has focused study on the risk assessment technique and operandi in the Banks. Both the HBL and NIBL are among the oldest banks of Nepal. However NIBL has been on aggressive marketing in the decade of 2000 since it was changed to NIBL. Researcher has found that Operational risk and credit risk assessment in NIBL was poor compared to HBL. Figures of Balance sheet have been inconsistent.

From Maharjan’s study, Researcher concluded that banks should adopt sound credit collection policy that covers rapid identification of bad loans, immediate contact with borrower and continual follow-up until a loan is recovered. Banks should strictly follow regulations implemented by the regulatory body i.e. NRB. Effective Credit appraisal, Credit risk monitoring policies should be adopted and status of the Borrowers on Credit information on Credit Information Bureau (CIB) should be strictly followed. The marketing strategies should be innovative and the Bank should identify new investment sector that gives healthy profit and are less risky sectors. Bank should establish Research and Development Department (RandD) for developing new products. Researcher focuses on the Investment in Micro Finance that diversify risk in terms of borrower and amount should be encouraged either that is direct or indirect. Hence, corporate Social responsibility should be encouraged which helps to establish a positive image in the mass for trustworthiness of the Bank.

Kasaju (2010) in his thesis “Credit Management in Joint Ventures Banks in Nepal” has highlighted the major issues and competencies in credit management in Joint venture Banks in Nepal with special reference to NABIL Bank Ltd. (NBL) and Himalayan Bank Ltd. (HBL). Kasaju has primarily focused his study towards mobilization of resources, role of treasury department, fund management, liquidity position, role of Cash Reserve ratio (CRR) in credit management and the effect of credit management in managing credit risk.

From his study Researcher mentioned that, NRB Directives should be followed strictly to reduce the credit risk, default risk, market risk, and operational risk. Information of the borrower from CIB shall be important in extending credit. Banks should follow project-oriented approach and avoid more risky are of lending. Banks should adopt sound credit

collection policy, concentrate on decreasing ratio of return on total assets and invest in productive and less risky projects. Banks should focus on customer satisfaction which increases trust worthiness of the institution in the mass people. Banks should develop an innovative approach of bank marketing for its well being, sustainability and new standards should be designed to make the bank management more accountable for credit policy.

Ban (2011) in his thesis “Credit Risk Management” has attempted to study the credit risk associated with Banks in Nepal in line with the NRB Directives and Basel II framework 2007. In this thesis researcher has focused his study on Capital Adequacy framework, sector wise lending, and security wise lending policies adopted by the commercial banks in Nepal.

Researcher writes in his thesis that Credit risk is the most challenging risk that a Bank deals on which requires high qualified human resources to cope. The problems in credit processing include lack of through 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. Market and liquidity sensitiveness exposures also increase the credit risk of the Banks. Credit to Deposit ratio, Capital Adequacy ratio, Concentration on sector wise lending etc are the major indicators for credit risk management. The Banks should follow the threshold determined by the regulatory authority for credit risk mitigation. Banks have been focused on providing any types of loans i.e. working capital Loan, Import and Export Loan etc. against mortgage of properties. Proper business assessment, business viability, project efficiency should be done for providing loan. Securities of Fixed assets do not mean that the loan is fully secured though the property is at prime location of the country. In the present time loans extended in the real estate sector has been a major source of credit risk to the banks. Banks should pressurize the borrowers to sale the assets by reducing the value of the property which helps the banks to recover the loan and get relief of the interest and debt obligation to the borrowers. Banks should lend in real estate sectors in those project that are for ultimate consumers i.e. for consumption purpose.

Basnet (2011) in his thesis “Money Supply, Inflation and Credit risk Management” has showed the relation between Money Supply and Inflation with the credit risk management for the Banks. His major findings and the conclusion of his study stated that money supply creates inflationary pressure in the economy. Monetary and Fiscal Policies have impact on credit risk management. Banks are supposed to act according to the monetary policies issued by the regulatory authority. Higher money supply increases inflation and liquidity. Interest rate gradually decreases and creates investment environment with more investable money. However lower supply creates liquidity crunch and this shrinks the investment opportunities which is directly related to credit risk management.

2.3 Research Gap

Researcher has found many contributions from previous literature in the credit risk management. But Researcher found some shortage in thesis done by previous researchers. Many of the study has been based on NRB directives relating to Loan Classification, Loan loss provision, Capital adequacy, Non Performing Loan etc, but study on the credit risk arising from result of Corporate Governance, Credit concentration risk, Information of the Borrower and credit risk governance has not been found by the researcher. So, the researcher can make further research on credit risk management highlighting the credit concentration risk, credit risk governance and corporate governance in the Nepalese banks. The purpose of this research is to development some expertise in one’s area, to see what new contribution can be made and to receive some ideas, knowledge and suggestions in relation to credit risk management of selected commercial banks (i.e.; Kumari Bank Ltd and Machhapuchre Bank Ltd. Ltd.). Thus, the previous studies cannot be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. Therefore, to fulfill this gap, this research is selected. To complete this research work, many books, journals, articles and various published and unpublished dissertation are followed as guideline to make the research easier and smooth.

CHAPTER - III

RESEARCH METHODOLOGY

This chapter looks into the research design, nature and sources of data, data collection procedure and tools and techniques of analysis. The research methodology used in this study is explained below:

3.1 Research Design

This study is designed to analyze the cause and effect of credit risk, credit risk management procedures adopted by the sample banks as well as by the central regulatory authority. Hence, historical statistics are analyzed and interpretation is made on the basis of available information. It presents a series of guideposts for the researcher to progress in the right direction in order to achieve the goal. Hence, the study is designed in accordance with the given research problems, objectives, research questions and hypothesis testing of the study. The study follows both the descriptive and analytical research design.

3.2 Population and Sampling

The total commercial banks in Nepal shall constitute the population of data and two banks under the study constitute the sample for this study. So among the 32 commercial banks in the banking industry, Machhapuchre Bank Ltd. (14th commercial Bank) and Kumari Bank Ltd. (15th Commercial Bank) are selected randomly as samples for the study. These two banks have been facing major credit risk challenge from the inception. Machhapuchre Bank has been punished by NRB for de-regulation and Kumari Bank has conflict in management and board from the inception and the banks have not been performing well though it is an old bank compared to the new banks in Nepal. Researcher selected these banks because of their similar capital, date of establishment and both facing major credit risk for growth. As well as in Machhapuchre bank, recently a huge obligor loan was considered as Non-performing loan and auction notice was published. So, due to the concentration of risk in a single obligor the bank has to suffer

tremendously. Hence, it has been decided to study taking sample of Machhapuchhre Bank Ltd. and Kumari Bank Ltd. after listening to various credit related issues, their profiles, various news and their financial reports.

3.3 Sources of Data

The study is mainly based on secondary data. Secondary data has been used for the analysis of portfolio of the sample banks for effective credit risk management and corporate governance and primary data has been used to judge the relation of different economic components and risk factor with the credit risk and governance. For secondary data, most of the data has been collected from the published profit and loss accounts, balance sheet, annual reports etc. of the both banks i.e. Kumari Bank Ltd and Machhapuchhre bank Ltd. with the help of internet and informal visits. Different published reports from Nepal Rastra Bank i.e. .Monetary Policy, Interim review, journals etc has been an important source of data. As well as published reports from Nepal Government, Ministry of Finance i.e. economic survey, reports etc, Central Bureau of Statistics of Nepal, other national and international organizations and some useful websites etc too has been a major source of information for secondary data during the research period.

Those data which are collected for the first time for any specific purpose are called the primary data. Primary data gathered by the researcher for the research project at hand collection of primary data is comparatively expensive than the collection of secondary data but they are exactly in the form that the researcher requires. Primary data are collected through questionnaires. For primary data researcher has used the mailed questionnaire method. Researcher has mailed the questionnaires to the staffs of the sample banks on judgmental sampling basis.

3.4 Data collection Procedures

The annual reports of the concerned banks were obtained from their head office and their websites. The main sources of data are annual report of concern financial institute. NRB publication such as Banking and Financial Statistics Economic Reports, Annual Reports of NRB etc has been collected the websites. Besides, a details review materials are

collected from the library of Shanker Dev Campus, Central Banks' Library and Central Library of T.U.

For collecting primary data, judgmental sampling method has been selected by mailed questionnaire. Regarding primary data, in an about 400 staffs each in the both banks 13 staffs from credit department of each banks had been selected randomly to response the questionnaires and all of the selected staffs kindly responded the questionnaires. The response had been collected from the respondent duly filled. According to the opinions received from the sampled employees from each bank, it helps to trace out the determinants of credit risk and the aspects of credit risk management.

3.5 Profile of Sample Banks

3.5.1 Brief Introduction of Machhapuchchhre Bank Ltd. (MBL)

After the restoration of democracy in 1990 A.D., and from the liberalization policy of the government, as the first regional Commercial Bank in Nepal Machhapuchchhre Bank Limited established in 1998 A. D. to render the services to all nations of the country. It has its head office at Pokhara, Nepal. Today it is one of the full fledged commercial bank operating in Nepal; and it ranks in the topmost among the private Commercial banks. 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, Mobile (SMS) Banking, Safe Deposit Locker facilities, Utility Bill payment (Telephone and Mobile), ATM (VISA Debit Cards and Debit card associated with SCT Network) to its valued customers. Besides these, the Bank is providing 365 Days banking and Evening Counter services to the customers through many of its offices. The Bank had been promoted by individuals and companies with local roots but from different walks of life with a vision and dedication to provide

the best financial products and services in the most efficient and professional manner. With the merger of its own kind, in fact the first biggest merger of two independent groups of the existing Machhapuchchhre Bank Ltd. and the then Standard Finance Company with a paid up capital of above one billion rupees promoted by amongst other prominent local businessmen, the highly renowned Non Resident Nepalese, has given a big impetus to the Bank.

With this merger, now with a paid up capital of over 2.47 billion rupees, 52 branch offices one extension counter and 62 ATMs spread all across the country, it is one of the biggest 31 full- fledged national level commercial banks operating in Nepal. It takes pride in having its own buildings for its Corporate Office in Lazimpat, Head Office in Naya Bazar, Pokhara, and Branch offices in Jomsom, Baglung and Damauli. The bank aims to serve the people of both the urban and rural areas.

3.5.2 Brief Introduction of Kumari Bank Ltd. (KBL)

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.

Capital Structure of Kumari Bank Ltd.

Capital as at Asad End 2069	Amount in Rs '000'
Authorised Capital	2,000,000.00
Issued Capital	1,603,800.00
Paid-up Capital	1,603,800.00

It has been providing wide - range of modern banking services through 29 points of representations located in various urban and semi urban part of the country, 20 outside and 9 inside the valley. 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 37 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 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.

Mission of this Bank is to deliver innovative products and services to our customers, by using the innovative products to achieve financial inclusion, and do so by exemplifying good corporate governance, proactive risk management practices, and superior corporate social responsibility.

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

To take these two commercial banks as the sample of the study the researcher has found out the below mentioned reasons:-

- Both the Banks have credit related problem from the inception.
- Both the Banks has not been able to perform smoothly though it has been established near a decade ago.
- Recently Machhapuchre Bank's large obligor has been bankrupted, which caused immense challenge to MBL due to credit risk concentration on a single Bank.
- Both Banks has faced management problem from a long time.
- Poor corporate governance has been a major challenge of credit risk for both Banks

- The negative news of both banks in different newspapers, media and by shareholders, stakeholders and staffs formally and informally time and again.

To find the major problems, challenges due to credit risk for growth of an institution Researcher wish to research on credit risk management with reference to the sample Banks. The study covers the time series data from the fiscal year 2062/63 to 2068/69.

3.6 Data Processing and Method of Data Analysis

The collected data and information are edited, organized, classified and calculated in accordance with the nature of available data and information. Higher attention is given to escape from any error while tabulating and analyzing the data. The collected data have been made in various tabular and graphic forms as per the situation and requirements in order to achieve the desired objectives. Both of qualitative and quantitative methods of reasoning are used to analyze the data. Mainly financial and statistical methods are applied for the purpose of this study. Appropriate statistical tools are also used. Ratio analysis and bar, graphs etc has been used for analysis of secondary data and hypothesis test was used for analysis of primary data. To make the study more specific and reliable, the researcher uses two types of tool for analysis:

- Financial Tools and
- Statistical Tools
- Hypothesis

a) Financial Tools

Ratio analysis has been used as the primary financial tool for analysis of the secondary data collected.

Ratio analysis is a powerful and the most widely used tool of financial analysis. A ratio defined as "The indicated quotient of two mathematical expression" and as the relationship between two or more things. Ratio analysis is a widely used tool of financial analysis. It is defined as the systematic use of ratio to interpret the financial statements so that the strength and weakness of a firm as well as its historical performance and current financial condition can be determined. In financial analysis a ratio is used as an index or yardstick for evaluating the financial position and performance of a firm. Ratio helps to

summarize the large quantities of financial data and to make qualitative judgment about the firm's financial performance.

A large number of ratios can be generated from the components of profit and loss account and balance sheet. They are sound reasons for selecting different kinds of ratios for different types of situations. For this study, ratios are categorized into the following major headings:

- i) Total Loans and Advances to Total Deposit Ratio (C/D) ratio
- ii) Total Loans and Advances to Total Assets Ratio
- iii) Total Capital Fund to Risk Weighted Asset Ratio
- iv) Total Non-Performing(NPL) Loan to Total Loans and advances
- v) Total Loan Loss Provision (LLP) to Total Non-Performing Loan(NPL)
- vi) Total Loan Loss Provision to Total Loans and Advances
- vii) Core Capital to Total Risk Weighted Asset (RWA)
- viii) Supplementary Capital to Total Risk Weighted Asset (RWA)
- ix) Total Loans and Advances to Total Risk Weighted Asset (RWA)

b) Statistical Tools

For analysis and interpretation of the secondary data arithmetic mean, standard deviation, tabular and graphical presentation has been used. For the analysis of the primary data hypothesis test has been conducted. The collected data were processed through the computer program like 'Microsoft Excel'. The statistical tools used are briefly elaborated below:-

i) Arithmetic Mean (\bar{X})

Averages are statistical constants, which enable us to comprehend in a single effort of the whole. It represents the entire data by a single value. It provides the gist and gives the bird's eye view of the huge mass of unwieldy numerical data.

It is calculated as:

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

Where,

$$\bar{X} = \text{Arithmetic mean}$$

N = Number of observations

$\sum x$ = Sum of observations

Arithmetic mean has been used for calculating the average data of the sample banks for drawing the conclusion of the study. Arithmetic mean has been used in all comparative analysis section.

ii) Standard Deviation (S.D.)

The standard deviation is the square root of mean squared deviations from the arithmetic mean and is denoted by S.D. or σ . It is used as absolute measure of dispersion or variability. It measures the total risk. It is calculated as:

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

Where,

σ = Standard deviation

\bar{X} = Arithmetic mean

N = Number of observations

$\sum x$ = Sum of observations

Standard deviation has been used for calculating deviation of different asset of the sample banks throughout the study period.

iii) Coefficient of Variation (CV)

Another useful measure of risk is the coefficient of variation (CV), which is the standard deviation divided by the mean value. It shows the risk per unit. It is used for comparing the variability of two distributions. It is calculated as:

$$CV = \frac{SD}{Mean}$$

Greater the CV, the more variable or conversely less consistent, less uniform, less sustainable and homogenous than the consistent more uniform, more stable and homogenous.

iv) Tabular and Graphical Presentation

Tabular and Graphical presentation of the data are one of the most commonly used statistical technique of data analysis and presentation. Data are shown in table and in Graphs i.e. bar diagram and line chart. In this thesis Bar Diagram and other graphical presentation are done for analysis of collected data.

c) Hypothesis Testing

In this research, Researcher has attempted to relate different parameters of lending in Financial Institutions and credit risk. Researcher has set two hypotheses to test whether there is significant difference between observed frequencies and expected frequencies or not in ranking the major challenging banking risk and major source of credit risks in Nepal.

It consists of decision rules required for drawing probabilistic inferences about the population parameter.

Hypothesis is a quantitative statement about the population parameter. Then testing hypothesis is to test the reliability if the hypothesis (assumption about population parameters) by using sample statistics. In other words, it is an assumption about the population parameter from sample statistic and its validity is tested i.e. by setting the hypothesis for either to be rejected or to be accepted. Hypotheses are of two types:

a. Null Hypothesis

Null Hypothesis is the hypothesis which is tested for possible rejection under the assumption that it is true. In other words the assumptions or presumptions about the population parameter is called null hypothesis and is denoted by H_0 . i.e. Null hypothesis = H_0 .

b. Alternative Hypothesis

Alternative hypothesis is the opposite of Null Hypothesis. If the decision maker rejects null hypothesis on the basis of sample information, Researcher/Researcher should accept another hypothesis which is complementary to null hypothesis and known as alternative hypothesis and denoted by H_1 i.e. Alternative hypothesis = H_1 .

Chi- square test (χ^2 - test)

It is the non-parametric test which does not make any assumption regarding the form of the population. It is also called parametric less tests. This type of test is used to study socio –economic studies. Chi-square test describes the magnitude of observed and theoretical frequency distributions by using following formula:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where,

O = Observed frequency

E = Expected frequency

Degree of Freedom (d. f.)

Degree of freedom is merely the numbers of data which are given as variables in a row or column or frequencies that are put in contingency table and can be calculated independently.

Degree of freedom = (r-1) (c-1)

Where,

R = No. of rows

C = No. of columns

In this research level of significance is assumed as 5%.

In this study, chi –square test (χ^2) has been used to test the magnitude of the differences between observed frequencies and expected frequencies related to preferences of various persons related to banking industry factor for corporate governance and credit risk.

Hypothesis-I

Null Hypothesis (H_0): There is no significant difference in the distributions of observed and expected frequencies regarding ranking of major banking risk in Nepal.

Alternative Hypothesis (H_1): There is significant difference in the distributions of observed and expected frequencies regarding ranking of major banking risk in Nepal.

Hypothesis-II

Null Hypothesis (H_0): There is no significant difference in the distributions of observed and expected frequencies regarding ranking of major source of credit risk in Nepal.

Alternative Hypothesis (H_1): There is significant difference in the distributions of observed and expected frequencies regarding ranking of major source of credit risk in Nepal.

CHAPTER - IV

DATA RESENTATION AND ANALYSIS

This chapter gives the presentation, detail analysis and interpretation of the accumulated data from which concrete result can be obtained. Only secondary data are used for the analysis of different risks of the concerned banks (MBL and KBL). To make the study more effective, precise and easily understandable, this chapter is categorized into three parts – presentation, analysis, and interpretation. In the presentation section, data are tabulated. These tabulated data are then analyzed using different statistical tools. Thus, in this chapter the collected data from either primary or secondary source are presented in systematic method and analyzed. The data analysis done in this chapter helps to give reason for the problem of the study, summary and conclusion of the study. Researcher has focused on error less calculations and interpretations of the data though the error is inevitable. In this chapter different ratios are calculated, charts, figure are presented for the clear glance of the study.

4.1 Comparative Analysis of Credit Risk

Credit risk is simply defined as the potential that a bank borrower or counterparty will fail to meet its obligation in accordance with agreed terms. 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 risks in individual credits or transactions. Banks 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 (Basel 2000).

The key performance indicators of credit performance of MBL and KBL are as follows:

4.1.1 Credit to Deposit Ratio (C/D Ratio)

Credit to deposit ratio (C/D ration) means Total Loans and Advances to Total Deposit ratio i.e. the Banks cannot lend more than they have collected. But in the recent past years due to excessive lending of more than collected deposit and capital, the financial

sector has suffered from the liquidity crisis. Thus Nepal Rastra Bank has made provision of lending loans and advances maximum up to 80% of the collected deposit and Capital including the reserve fund.

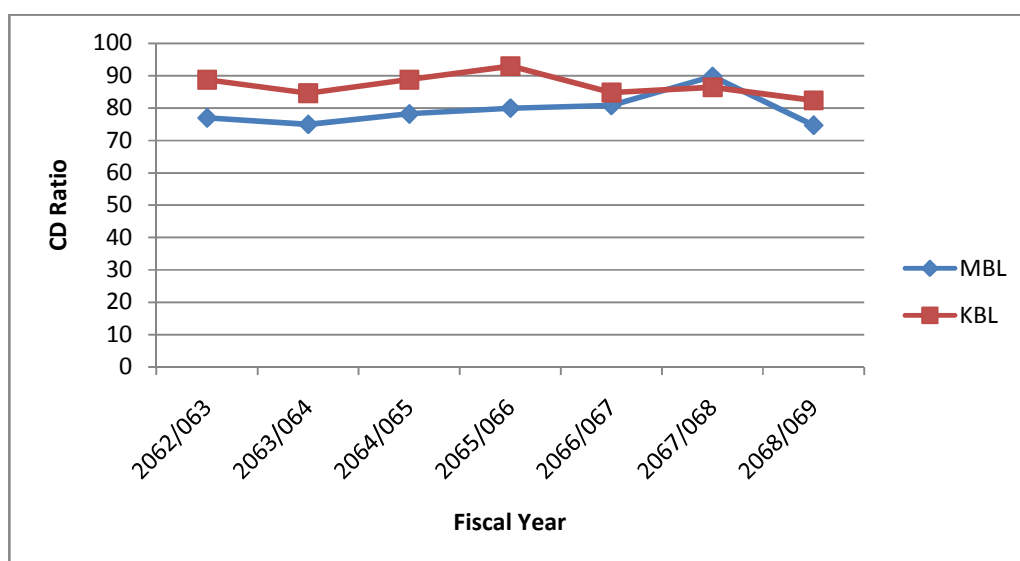
Table 4.1
Credit to Deposit Ratio (CD Ratio)

(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Loans and Advances (C)	Total Deposit (D)	C/D Ratio %	Total Loans and Advances (C)	Total Deposit (D)	C/D Ratio %
2062/063	6,068.91	7,893.30	76.89	6,891.86	7,768.96	88.71
2063/064	7,096.90	9,474.97	74.90	8,930.18	10,560.92	84.56
2064/065	8,674.98	11,101.18	78.14	11,338.73	12,778.86	88.73
2065/066	12,467.19	15,596.25	79.94	14,593.57	15,710.93	92.89
2066/067	14,972.53	18,536.21	80.77	14,766.12	17,432.25	84.71
2067/068	14,731.04	16,411.43	89.76	14,666.31	16,986.28	86.34
2068/069	16,078.00	21,546.40	74.62	18101.34	21,985.20	82.33
Avg. C/D ratio for 7 yrs			79.29			86.90
S.D. for 7 years			5.17			3.51
CV			0.07			0.04

Source: Annual Reports

Figure 4.1
Credit to Deposit Ratio (CD Ratio)



From Table 4.1 and Figure 4.1, we can draw that Kumari Bank Ltd. (KBL) has higher C/D ratio study period MBL had sufficient ratio compared to the KBL. Though Kumari Bank C/D ratio is higher the benchmark i.e. 80%, the capital and reserve used to calculate the C/D ratio covers it within the defined ratio. The average ratio of MBL throughout the study period is 79.29% whereas it is 86.90% of KBL. The standard deviation of MBL is 5.17% and coefficient of variation is 0.07 which is higher in comparison to KBL i.e. standard deviation is 3.15% and coefficient of variation is 0.04. Hence, we can say that MBL has low concentration of liquidity measures in the credit risk compared to KBL.

4.1.2 Total Loans and Advances to Total Assets Ratio

Assets of the Banks and Financial Institution represent total lending, investment, Cash and Bank Balance, Fixed Assets, Non-Banking Assets and other Assets. It defines the concentration of Loans and Advances of its total Assets. The Financial institution shouldn't diversify its assets only in the Loans. Investment in Bonds, Treasury Bills and other instruments may be profitable for the Bank in short term when there is no opportunity in the market for lending in secured sector. As well the Central Bank has made provision of investing a certain portion of its Assets in Government instruments to help for government spending. Researcher has analyzed its portion of lending out of the Assets during the study period of the sample banks and presented below:

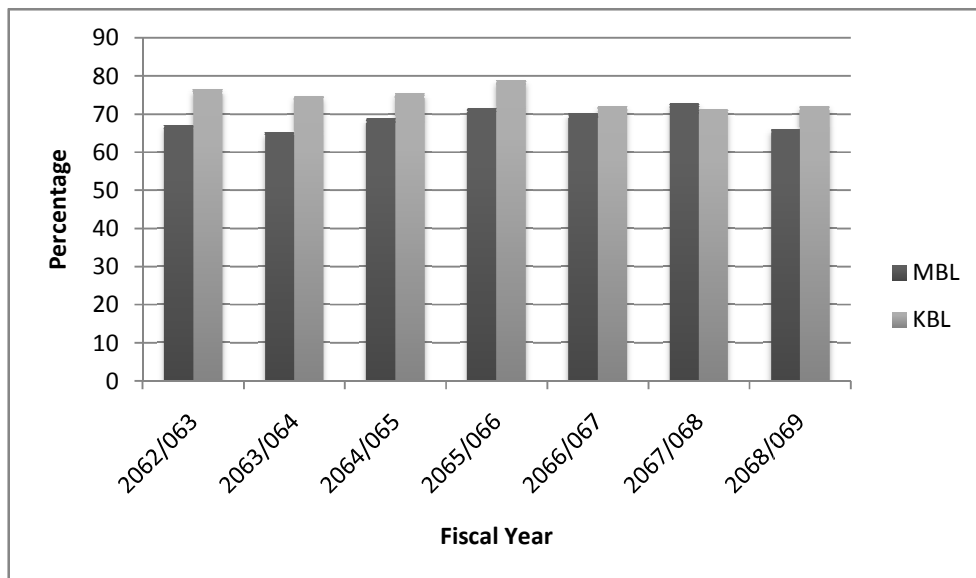
Table 4.2
Total Loans and Advances to Total Assets Ratio

(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Loans and Advances	Total Assets	Ratio%	Total Loans and Advances	Total Assets	Ratio%
2062/063	6,068.91	9,046.27	67.09	6,891.86	9,010.28	76.49
2063/064	7,096.90	10,897.28	65.13	8,930.18	11,961.61	74.66
2064/065	8,674.98	12,608.25	68.80	11,338.73	15,030.08	75.44
2065/066	12,467.19	17,447.57	71.46	14,593.57	18,533.23	78.74
2066/067	14,972.53	21,337.37	70.17	14,766.12	20,523.43	71.95
2067/068	14,731.04	20,225.78	72.83	14,666.31	20,601.26	71.19
2068/069	16,078.00	24,357.25	66.01	18101.34	25,131.40	72.03
Avg. ratio for 7 yrs			68.78			74.36
S.D. for 7 years			2.66			2.57
CV			0.04			0.03

Source: Annual Reports

Figure 4.2
Total Loans and Advances to Total Assets Ratio



The ratio of total Loans and Advances to total Assets of the both sample Banks seem to be consistent so far. From Table 4.2 and Figure 4.2, we can find that, in the year 2065/66 KBL has highest figure of ratio i.e. 78.74% compared to the highest figure of MBL in

year 2067/68 i.e. 72.83%. This ratio represents the liquidity risk of the bank. Liquidity ratio further creates credit risk. In the fiscal year 2068/69 the ratio of MBL and KBL is 66.01% and 72.03% respectively. This ratio defines that the concentration of loans and advances of KBL is higher than MBL. Both the standard deviation of 2.66 % and coefficient of variation, 0.04 of MBL are higher than KBL i.e., standard deviation is 2.57 % and coefficient of variation is 0.03. In the fiscal year 2067/68 Nepalese banking sector has faced a major problem in credit due to the liquidity crisis. Even The Central Bank has to act as the “Lender of the last resort “to rescue the financial institution.

4.1.3 Total Non-Performing (NPL) Loan to Total Loans and Advances

As per Unified Directives, 2069 Loans under the sub-standard, doubtful and loss categories are called “Non-Performing Loans”. Non- Performing Loans has been a measure to evaluate the result of credit risk. If an organization has higher credit risk the organization has higher NPL. During the research, the researcher has attempted to analyze the NPL of the sample Banks and interpret the NPL as a part of credit risk that helps for the conclusion and recommendation in credit risk management. The comparative study of Non-Performing Loans of the sample Banks is done hereunder.

Table 4.3

Total Non-Performing (NPL) Loan to Total Loans and Advances Ratio

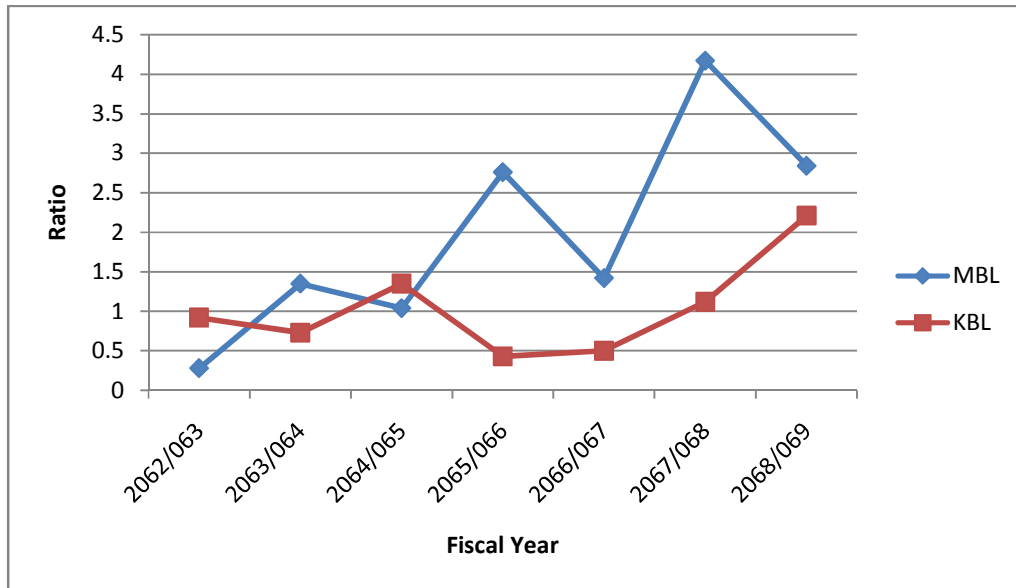
(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Non-Performing Loan (NPL)	Total Loans and Advances	Ratio %	Total Non-Performing Loan (NPL)	Total Loans and Advances	Ratio %
2062/063	16.99	6,068.91	0.28	63.41	6,891.86	0.92
2063/064	95.81	7,096.90	1.35	65.19	8,930.18	0.73
2064/065	90.22	8,674.98	1.04	153.07	11,338.73	1.35
2065/066	344.09	12,467.19	2.76	62.75	14,593.57	0.43
2066/067	212.61	14,972.53	1.42	73.83	14,766.12	0.50
2067/068	614.28	14,731.04	4.17	164.26	14,666.31	1.12
2068/069	455.95	16,078.00	2.84	399.96	18,101.34	2.21
Avg. ratio for 7 yrs			1.98			
S.D. for 7 years			1.23			
CV			0.62			

Source: Annual Reports

Figure 4.3

Total Non-Performing (NPL) Loan to Total Loans and Advances Ratio



In Table 4.3 and graphical presentation in Figure 4.3 of Non- Performing Loan to Total Loans and advances ratio, the researcher has found that the NPL to Loans and Advances Ratio of MBL is higher throughout the study period. Since the inception of study period i.e. F.Y. 2062/63 MBL's NPL to Loans and Advances Ratio has been increasing most of the times compared to that of KBL. MBL's NPL to Loans and Advances Ratio was at the highest in F.Y. 2067/68 i.e. 4.17% whereas KBL's was highest in F.Y. 2068/69 i.e. 2.21%. Standard deviation of MBL and KBL is 1.23 % and 0.57% respectively. Coefficient of variation of MBL is 0.62 and KBL is 0.55. It shows that the loans of MBL are at riskier position than of KBL. The average NPL to Loans and Advances Ratio of MBL and KBL is 1.98% and 1.04% respectively throughout the study period. NPL has great impact in the profitability of the Banks. Since the higher amount has to be kept under provision with higher NPL and the Bank worthiness is decreased when the NPL of Bank is higher. Researcher has discovered that the reason for MBL NPL to be higher is to have more exposure in single obligor.

4.1.4 Total Loan Loss Provision (LLP) to Non-Performing Loan (NPL)

Loan loss provision (LLP) means the total provision made for the of the total loans and advances made by the banks as per Unified Directives, 2069 and Non-Performing Loan

means all the loans other than the pass category. It means if the LLP is higher the NPL contains most of the most under substandard, doubtful and bad category. Higher this ratio, the lower amount of NPL the bank has. Researcher has attempted to analyze the ratio of LLP to NPL as presented below of the study period.

Table 4.4
Total Loan Loss Provision (LLP) to Non-Performing Loan (NPL)

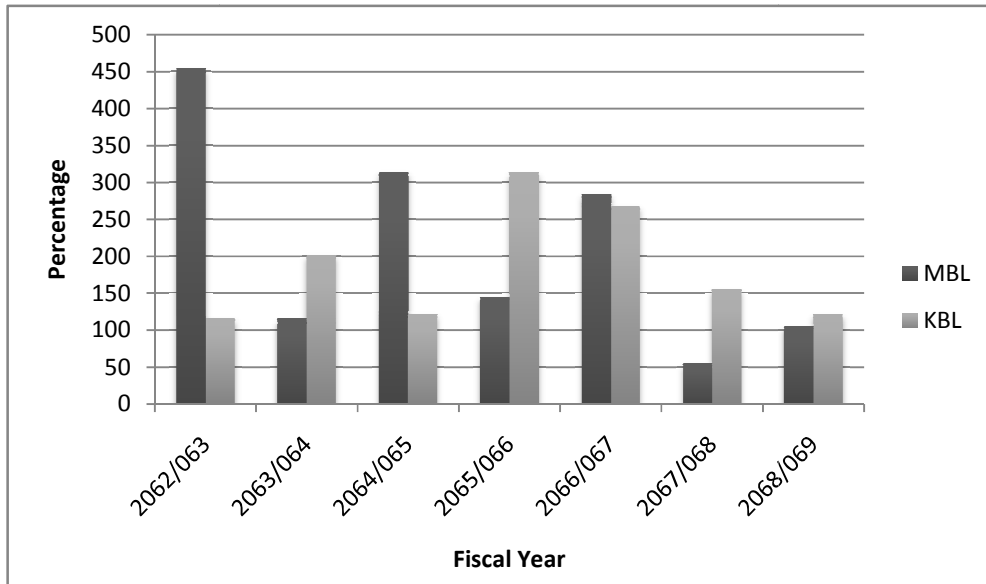
(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Loan Loss Provision (LLP)	Total Non-Performing Loan (NPL)	Ratio %	Total Loan Loss Provision (LLP)	Total Non-Performing Loan (NPL)	Ratio %
2062/063	77.13	16.99	453.97	73.27	63.41	115.55
2063/064	110.19	95.81	115.01	131.19	65.19	201.24
2064/065	283.18	90.22	313.88	186.01	153.07	121.52
2065/066	498.31	344.09	144.82	196.79	62.75	313.61
2066/067	603.41	212.61	283.81	197.77	73.83	267.87
2067/068	335.21	614.28	54.57	254.29	164.26	154.81
2068/069	475.31	455.95	104.25	486.99	399.96	121.76
Avg. ratio for 7 yrs			210.04			185.19
S.D. for 7 years			1.44			0.79
CV			0.69			0.43

Source: Annual Reports

Figure 4.4

Total Loan Loss Provision (LLP) to Non-Performing Loan (NPL)



Among ratio of LLP to NPL of the sample Banks, in the beginning year of the sample period i.e. F.Y. 2062/63, KBL has its ratio 115.55% compared to MBL highest throughout study period as 453.97%. We can say that if the ratio of LLP to NPL is higher, then the major portion of provisioning is of the NPL i.e. specific provisioning. KBL has its highest ratio in F.Y. 2065/66 as 313.61% whereas ratio of MBL has been in an average of 210.04% throughout the study period compared to 185.19% of KBL. The standard deviation of MBL is 1.44 % and KBL is 0.79 %. Coefficient of variation of MBL is also higher than KBL i.e., 0.69 and 0.43 respectively. It shows that MBL's LLP to NPL ratio has been higher compared to KBL and MBL is in riskier position than of KBL. It was 453.97 in F.Y. 2062/63 and it decreased to 57.57% in the year 2067/68 and in the fiscal year 2068/69 it was 104.25% that means in the year 2067/68 and year 2068/69 the loan loss provision made was most out of the NPL.

4.1.5 Total Loan Loss Provision (LLP) to Loans and Advances ratio

Loan Loss provision means the separate amount set aside from the operating profit in case of default of the Loans as defined by NRB Unified Directives, 2069. As we have discussed earlier NRB has made provision of provisioning 1%, 12.5%, 25%, 50% and 100% amount of Loans and advances in case of default as categorized by the directive.

During the study period researcher has studied this ratio of sample Banks to examine the impact of credit risk in the balance sheet of the sample banks. The detail presentation of this ratio is hereunder:

Table 4.5
Total Loan Loss Provision (LLP) to Loans and Advances Ratio

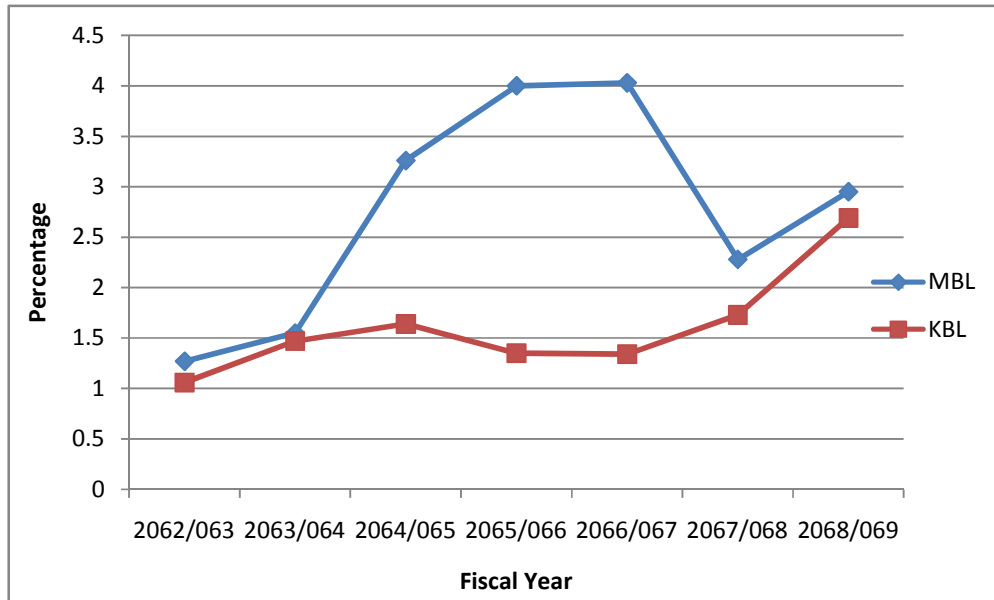
(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Loan Loss Provision (LLP)	Total Loans and Advances	Ratio %	Total Loan Loss Provision (LLP)	Total Loans and Advances	Ratio %
2062/063	77.13	6,068.91	1.27	73.27	6,891.86	1.06
2063/064	110.19	7,096.90	1.55	131.19	8,930.18	1.47
2064/065	283.18	8,674.98	3.26	186.01	11,338.73	1.64
2065/066	498.31	12,467.19	4.00	196.79	14,593.57	1.35
2066/067	603.41	14,972.53	4.03	197.77	14,766.12	1.34
2067/068	335.21	14,731.04	2.28	254.29	14,666.31	1.73
2068/069	475.31	16,078.00	2.95	486.99	18,101.34	2.69
Avg. ratio for 7 yrs			2.76			1.61
S.D. for 7 years			1.11%			0.52%
CV			0.40			0.32

Source: Annual Reports

Figure 4.5

Total Loan Loss Provision (LLP) to Loans and Advances Ratio



From Table 4.5 and Figure 4.5, we can draw the trend of Loan loss provision made throughout the year of study period of sample Banks. In the F.Y. 2062/63 both the banks MBL and KBL had near about equal proportion of provision but then after provision of MBL have been in increasing trend. MBL had its highest amount of provision in F.Y. 2066/67 as Rs. 603.41 Million compared to Rs. 486.99 Million in F.Y. 2068/69 of KBL. Loan loss provision has great impact in balance sheet of the banks and in the recent time the profit of the banks and financial institution is in decreasing trend resulting from higher amount of loan loss provision. In this study MBL has average LLP to its total loans and advances ratio as 2.76% with standard deviation of 1.11% and coefficient of variation of 0.40 compared to average of 1.61% with standard deviation of 0.52% and coefficient of variation of 0.32 of KBL. From this, we can say that KBL has its loan in better position than of MBL.

4.1.6 Total Capital Fund to Risk Weighted Assets Ratio (Capital Adequacy Ratio- Basel II)

Capital Adequacy Ratio (CAR) is the proportion of capital fund or shareholders equity in the total risk weighted asset of a bank. In other words, it is the capital portion which is used to finance the assets. The total risk weighted assets includes both on and off balance

sheet items, which has been rated with certain percentage of risk. The assets are weighted from 0% to 200% risk weight as per NRB Directive, 2069 in parallel with Basel II. It is a major tool to mitigate credit risk. If the banks follow the capital adequacy framework as defined they are minimizing their risk. As per the NRB Directive for the commercial banks, they should have CAR of 10% of Total capital fund and CAR of 6% of Primary Capital fund. We have already discussed the elements of capital fund in the chapter literature review. Previously NRB has set up CAR as 11% of total Capital fund but later on it has revised to 10%. NRB has different provision to penalize the institutions that unable to maintain the required capital fund and the ratio. CAR represents the risk element of Assets that is lent by the bank to total equity portion of the bank to assess the credit risk. Higher the CAR means the bank has enough capital funds to assess the credit risk of asset i.e. Loans and Advances. The higher ratio a bank maintains, the better position a bank has and vice versa. The researcher has analyzed the CAR ratio of the sample banks of the study period to evaluate the credit risk management measures taken by the two banks. throughout the Here the researcher has analyzed the ratio of Primary Capital (Tier 1) and Supplementary capital (Tier 2) to its risk weighted assets for the study period.

Table 4.6
Total Capital Fund to Risk Weighted Asset (RWA) Ratio

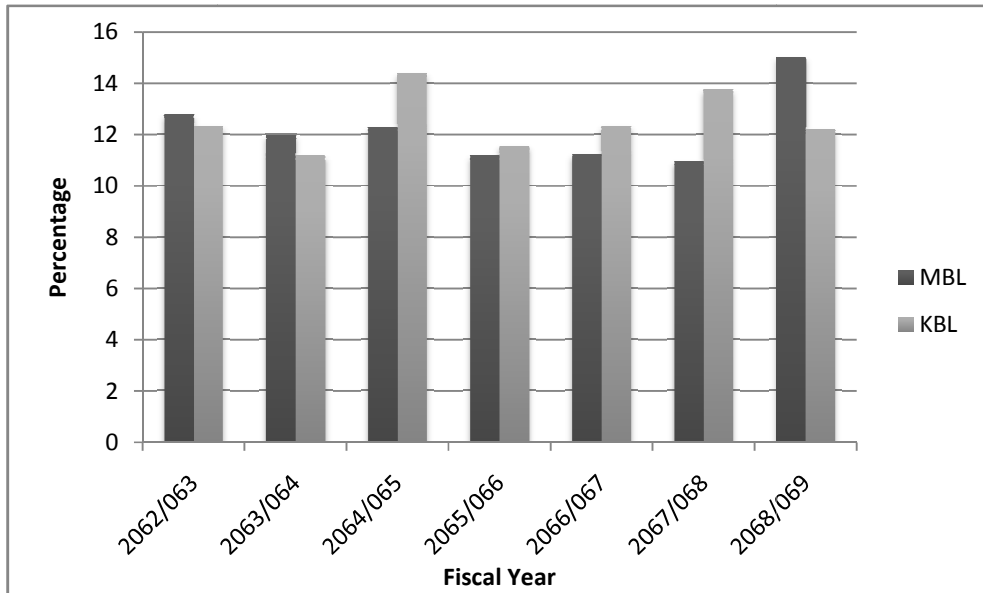
(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Total Capital Fund	Total Risk Weighted Assets	Ratio %	Total Capital Fund	Total Risk Weighted Assets	Ratio %
2062/063	976.07	7,632.00	12.79	940.98	7,625.05	12.34
2063/064	1,101.73	9,200.66	11.97	1,115.21	9,959.91	11.20
2064/065	1,279.80	10,417.06	12.29	1,882.93	13,070.38	14.41
2065/066	1,961.91	17,547.81	11.18	2,050.91	17,743.24	11.56
2066/067	1,979.56	17,600.71	11.25	2,124.63	17,220.69	12.34
2067/068	1,906.32	17,402.63	10.95	2,456.42	17,856.97	13.76
2068/069	2,797.45	18599.02	15.04	2554.09	20936.99	12.20
Avg. ratio for 7 yrs			12.21			
S.D. for 7 years			1.41			
CV			0.12			

Source: Annual Reports

Figure 4.6

Total Capital Fund to Risk Weighted Asset (RWA) Ratio



The CAR ratio of both sample banks seems consistent throughout the study period (Table 4.6 and Figure 4.6). MBL has highest ratio in F.Y. 2068/69 of 15.04% with an average ratio of 12.21%, standard deviation as 1.41% and coefficient of variation of 0.12 whereas KBL has highest ratio in F.Y. 2064/65 of 14.41% with an average ratio of 12.54%, standard deviation as 1.15% and coefficient of variation of 0.09. But in the study KBL seems in better position in terms of capital fund to be maintained. It means KBL can lend higher loans and advances than MBL. Change in the ratio too is not so inconsistent. CAR of MBL is just near about the statutory requirement but KBL has maintained a better position in terms of this ratio. So, we can say that credit risk management in terms of Capital fund is better in KBL than to MBL.

4.1.7 Core Capital (Tier 1) to Risk Weighted Asset (RWA) Ratio

Basel Committee has segregated the capital fund as Core Capital (Tier 1) and Supplementary capital (Tier 2). We have already discussed the ratio of total capital fund to the risk weighted assets. Here we are to analyze the ratio of primary capital to total risk weighted assets. As per the NRB Unified Directives, 2069, the commercial banks have to maintain 6% capital fund of primary capital with RWA. So, as a credit risk mitigation

technique of maintaining capital fund we have below presented and analyzed the ratio of primary capital to RWA of the sample banks of the study period.

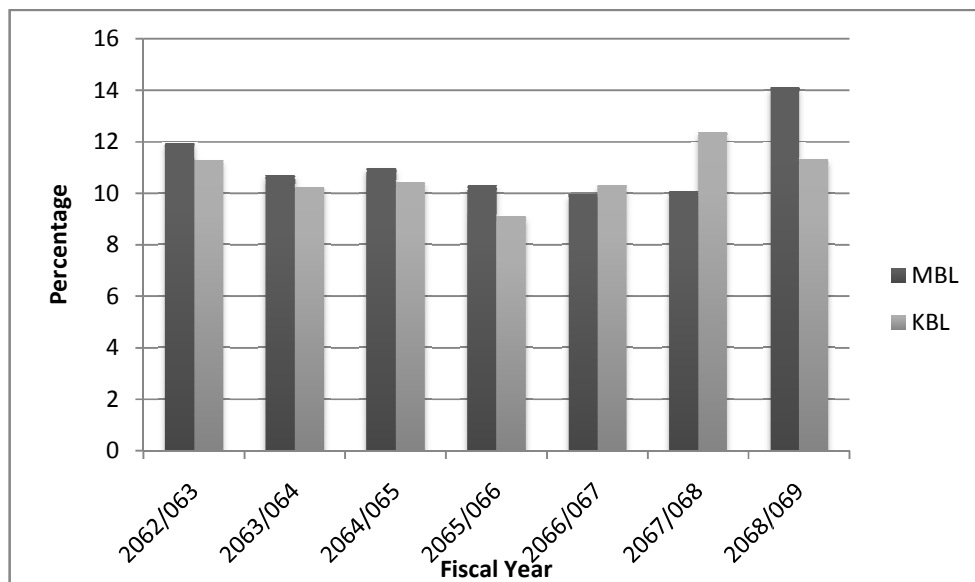
Table 4.7
Core Capital (Tier 1) to Risk Weighted Asset (RWA) Ratio

(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Core Capital (Tier 1)	Total Risk Weighted Assets	Ratio %	Core Capital (Tier 1)	Total Risk Weighted Assets	Ratio %
2062/063	911.54	7,632.00	11.94	858.52	7,625.05	11.26
2063/064	982.58	9,200.66	10.68	1,019.89	9,959.91	10.24
2064/065	1,142.97	10,417.06	10.97	1,359.03	13,070.38	10.40
2065/066	1,806.91	17,547.81	10.30	1,612.80	17,743.24	9.09
2066/067	1,750.35	17,600.71	9.94	1,772.14	17,220.69	10.29
2067/068	1,749.84	17,402.63	10.06	2,204.91	17,856.97	12.35
2068/069	2,624.97	18599.02	14.11	2365.25	20936.99	11.30
Avg. ratio for 7 yrs			11.14			
S.D. for 7 years			1.47			
CV			0.13			

Source: Annual Reports

Figure 4.7
Core Capital (Tier 1) to Risk Weighted Asset (RWA) Ratio



The above presentation in Table 4.7 and Figure 4.7, exhibits the ratio of primary capital to total risk weighted assets. As the statutory requirement of the ratio is 6%, both the banks have ratio above the par at all times in the study period. MBL and KBL have average ratio of 11.14% and 10.70 % respectively in the study time. It means there is no problem in maintaining the capital fund in the means of primary capital for the both banks. MBL has its highest ratio in F.Y. 2068/69 as 14.11% compared to KBL's highest as 12.35% in F.Y. 2067/68. Standard deviation of MBL and KBL is 1.47% and 1.04 % respectively and coefficient of variation of MBL and KBL is 0.13 and 0.10 respectively. That means change in ratio of core capital of MBL is inconsistent than of KBL. Since, the core capital incorporates, equity capital, shares, shares premium, reserve, retained earnings and other free reserves etc. the higher ratio shows that there is better economic health of the institution and the equity capital is sufficient to cover the credit risk.

4.1.8 Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio

The Supplementary (Tier 2) Capital includes reserves which, though unpublished, have been passed through the profit and loss account and all other capital instruments eligible and acceptable for capital purposes. The higher ratio shows the higher amount of reserves and there is no statutory benchmark for this ratio to be maintained. In this ratio major portion of the reserve contains general loan loss provision. The presentation of the ratio is hereunder:

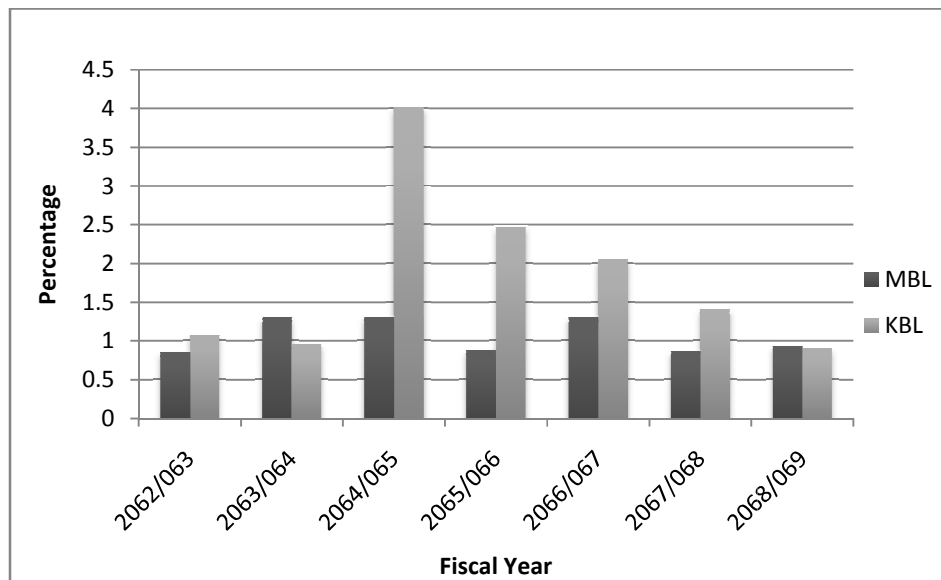
Table 4.8
Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio

(Rs. In Millions)

Fiscal Year	MBL			KBL		
	Supplementary Capital (Tier 2)	Total Risk Weighted Assets	Ratio %	Supplementary Capital (Tier 2)	Total Risk Weighted Assets	Ratio %
2062/063	64.52	7,632.00	0.85	82.46	7,625.05	1.08
2063/064	119.15	9,200.66	1.30	95.31	9,959.91	0.96
2064/065	136.83	10,417.06	1.31	523.89	13,070.38	4.01
2065/066	155.01	17,547.81	0.88	438.11	17,743.24	2.47
2066/067	229.20	17,600.71	1.30	352.49	17,220.69	2.05
2067/068	150.08	17,402.63	0.86	251.52	17,856.97	1.41
2068/069	172.48	18599.02	0.93	188.84	20936.99	0.90
Avg. ratio for 7 yrs			1.06			
S.D. for 7 years			0.23			
CV			0.21			

Source: Annual Reports

Figure 4.8
Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio



The presentation in Table 4.8 and Figure 4.8 exhibits the ratio of supplementary capital (Tier 2) to total risk weighted assets. Since, supplementary capital is summation of redeemable/ cumulative preference shares, subordinated debt, General Loan loss

provision and other provisions, its amount can be higher with increase in these headings. In this comparative analysis MBL has its highest ratio in F.Y. 2064/65 as 1.31% compared to KBL's highest as 4.01% in the same year. MBL's average ratio in the study period is 1.06% with standard deviation of 0.23% and coefficient of variation of 0.21 and KBL's average is 1.84% with standard deviation of 1.12% and coefficient of variation of 0.61. This result exhibits that the Capital fund requirement in this sample banks are mostly fulfilled the Core capital portion and supplementary capital has non-significant proportion in the statutory requirement. In this study KBL has better position compared to MBL and the consistency of the data is high of KBL.

4.1.9 Sector-wise Lending of the Sample Banks

Sector-wise lending means concentration of Banks Loans and advances in different sectors of economy. If the lending has not been diversified, the problem in the individual sector where the loan has been granted can cause problem to the health of the whole institution. So, the concentration risk should be diversified. In the recent years the banking concentration in the Real Estate, Margin lending, Equipments Loans etc were high due to the high profit at that very time. But due to the slowdown in these sectors in the economy the financial institutions are in huge trouble due to the default rate in these sectors. Today, the banking sector has to set huge provision for loan losses apart from the profit and the default of interest is too high.

Thus, Nepal Rastra Bank has provided the clear guidelines and limit for granting the Loan into different sectors. In this study researcher has focused to identify the credit risk arouse due to the credit concentration of sample banks in the different sectors of the economy along with the Real Estate sector in the recent years.

4.1.9.1 Sector wise Lending of Machhapuchre Bank Ltd. (MBL)

Nepal Rastra Bank has categorized different sectors of lending and has instructed the licensed institutions to lend its fund by diversifying the risk in different portfolios of economy. The sector wise lending of MBL during certain period of study is period below:-

Table 4.9
Sector-wise lending of Machhapuchre Bank Ltd. (MBL)

(In Percentage %)

Sectors of Loans	2068/69	2067/68	2066/67	2065/66	Average
Agricultural and Forest	0.44%	0.43%	0.34%	0.33%	0.39%
Fishery	0.01%	-	-	-	0.003%
Mining	0.29%	0.34%	0.33%	0.35%	0.33%
Manufacturing	25.71%	22.29%	20.68%	20.16%	22.21%
Construction	7.82%	8.18%	8.26%	11.13%	8.85%
Electricity, Gas and Water	6.90%	5.70%	4.91%	0.85%	4.59%
Metal Products, Machinery and Electrical Assemblage	0.85%	0.81%	0.83%	0.65%	0.78%
Transport, Communication and Public Utilities	6.20%	4.23%	4.56%	8.88%	5.97%
Wholesale and Retailer	15.55%	17.79%	17.49%	15.78%	16.65%
Finance, Insurance and Real Estate	13.13%	13.17%	9.61%	8.86%	11.19%
Hotel and Restaurant	1.88%	0.67%	0.70%	-	0.81%
Other Services	4.36%	4.23%	3.90%	6.22%	4.68%
Consumption Loans	2.12%	4.08%	2.34%	1.00%	2.38%
Local Government	-	-	-	-	0.00%
Others	14.74%	18.09%	26.05%	25.80%	21.17%
Total	100%	100%	100%	100%	0.39%

Source: NRB Banking and Financial Statistics, 2068/69

Figure 4.9

Sector wise lending of Machhapuchre Bank Ltd. (MBL)

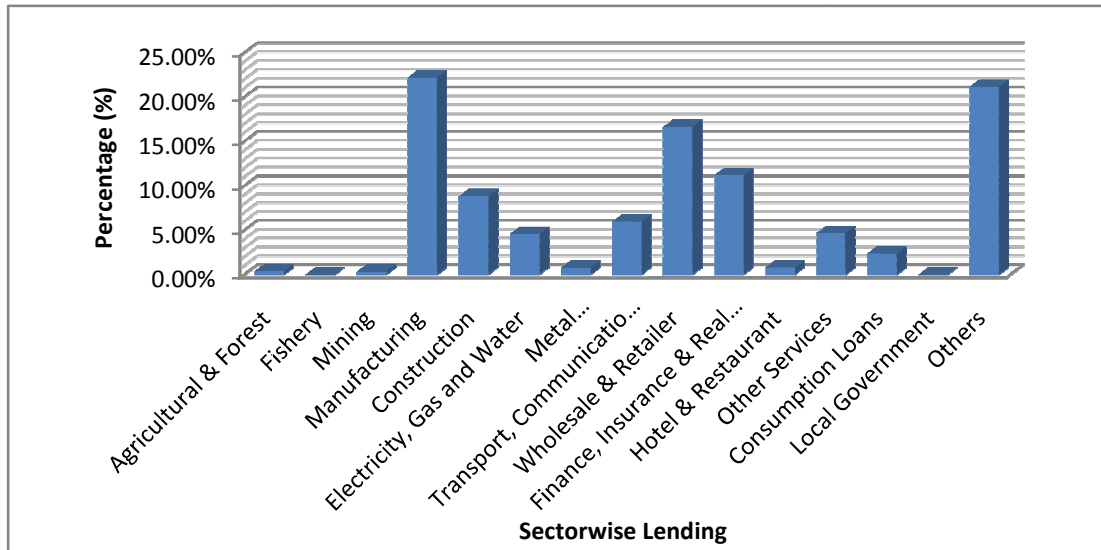


Table 4.9 and Figure 4.9 present the sector-wise exposure of MBL. It helps to analyze the concentration risk of a bank in a sector of economy. In the chart MBL has its highest exposure in manufacturing sector with exposure of 25.71% followed by wholesaler and retailer sector 15.55% and others sector 14.74%. Generally banks put personal loans in the 'Others' heading which means the loan has been provided with more risk because high personal loan cannot be the productive sector of the economy. As well these days Real Estate loans are provided as the personal loans this means MBL has granted Real Estate loans setting it under the Others category. MBL has very low amount of investment in agricultural sector i.e. 0.44%. MBL credit concentration risk under 'others' heading is risky and to be closely monitored because the large amount of loans provided without any disclosure of the sector is suspicious.

4.1.9.2 Sector-wise Lending of Kumari Bank Ltd. (KBL)

Table 4.10
Sector-wise lending of Kumari Bank Ltd. (KBL)

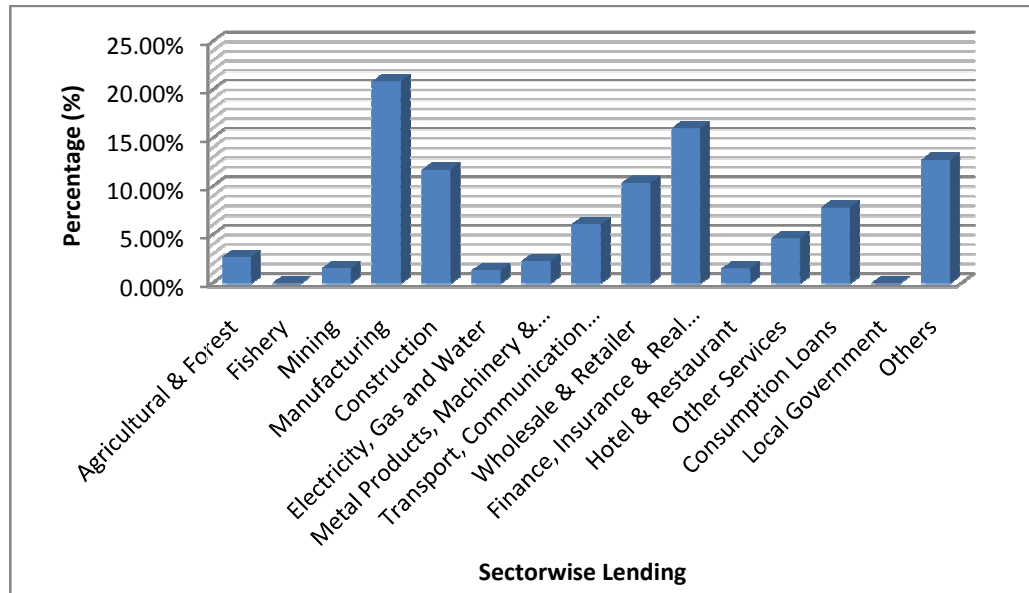
(In Percentage %)

Sectors of Loans	2068/69	2067/68	2066/67	2065/66	Average
Agricultural and Forest	2.02%	2.77%	2.75%	3.30%	2.71%
Fishery	-	-	-	-	0.00%
Mining	0.84%	2.78%	1.86%	0.85%	1.58%
Manufacturing	28.89%	18.33%	17.98%	18.36%	20.89%
Construction	13.07%	12.05%	11.39%	10.52%	11.76%
Electricity, Gas and Water	1.46%	1.06%	1.34%	1.55%	1.35%
Metal Products, Machinery and Electrical Assemblage	3.44%	2.32%	1.99%	1.54%	2.32%
Transport, Communication and Public Utilities	3.80%	4.64%	8.19%	7.85%	6.12%
Wholesale and Retailer	14.85%	10.16%	8.89%	7.70%	10.40%
Finance, Insurance and Real Estate	13.08%	15.17%	17.10%	18.78%	16.03%
Hotel and Restaurant	2.34%	2.10%	1.69%	-	1.53%
Other Services	6.21%	3.72%	3.62%	5.05%	4.65%
Consumption Loans	2.21%	8.36%	10.15%	10.72%	7.86%
Local Government	-	-	-	-	0.00%
Others	7.78%	16.53%	13.04%	13.79%	12.79%
Total	100%	100%	100%	100%	100%

Source: NRB Banking and Financial Statistics, 2068/69

Figure 4.10

Sector wise lending of Kumari Bank Ltd. (KBL)



As presented above in Table 4.10 and Figure 4.10, in F.Y. 2068/69, KBL has its highest exposure in manufacturing sector with 28.89% of total loans and advances followed by 14.85% investment in wholesaler and retailer sector. However, since the section Finance, Insurance and Real Estate has higher weight of Real Estate we can say that KBL has significant loans in Real Estate with 16.03% exposure. The undefined sector 'Others' too possess a significant exposure in KBL with 7.78% of total loans and advances. KBL doesn't have its portfolio in Fishery and Local government and its portfolio is non-significant in sectors like Electricity, Gas and Water, Agriculture Loans etc. Till date Kumari is not at par of lending in agriculture and Hydropower as restricted by NRB but it is in the growing trend. But in an average KBL has a diversified portfolio in sectors of lending.

4.1.9.3 Comparative Study of Sector wise Lending of MBL and KBL

Figure 4.11

Comparative Study of Sector wise Lending of MBL and KBL

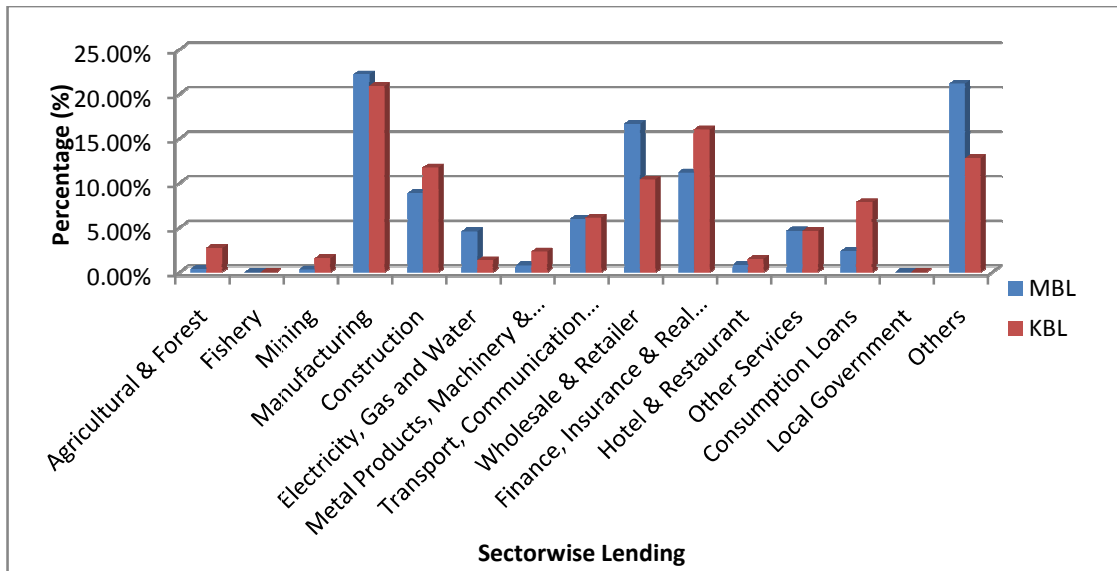


Figure 4.11 shows the comparative analysis of lending in different sectors of economy the sample Banks i.e. MBL and KBL. The chart shows that concentration in a single sector of MBL is high compared to of KBL. In the others sector MBL has 21.17% of its exposure whereas KBL’s exposure is 12.79%. Similarly in the manufacturing sector MBL has portfolio of 22.21% compared to 20.89% of KBL in the same sector. Portfolio of KBL in Finance, Insurance and Real Estate (16.03%) is higher compared of MBL (11.19%), but from this result we can say that MBL has classified its lending in real estate to others sectors which makes the undisclosed sector high enough. Similarly in the sectors like Agriculture, Mining, Construction, Hotels, Consumptions etc. KBL has more exposure than of MBL which sectors are relatively less risky.

Thus we can say that KBL has more diversified portfolio than of MBL. The optimum exposure in a single portfolio is regarded to be 10-20%. So, KBL has not crossed that bar in any sectors whereas MBL has crossed in others heading. MBL has its higher exposure in others, which means the undisclosed sectors. There is chance of such type of loans being used violating the credit norms, standards, which shows the lack of corporate

governance and poor credit assessment policy. So, we can say that in terms of sector wise lending KBL is superior to MBL.

4.1.10 Lending in Real Estate Sector

Real Estate sector is the most happening topic in the banking industry in the whole world. In the late 2008 the recession began from the American economy which did begin with the slowdown of real estate business in America. Banks heavily invested in this sector that was excess than of demand of the market and the buildings, apartments etc. did not get sold and then the recession was started. As of USA, in Nepal till beginning of 2010 real estate business was on hype. But after the policy of NRB to restrict the lending of Banks and Financial Institution on this sector this business started to slowdown and now the assets do not sell any more and the risk of default of this type of Loan has become high. Near about 100 billion rupees is being invested in this sector by the financial institution and if this sector is not taken into account the whole banking industry may be demolished. Due to high concentration of loan and advances of the financial institution in this sector, the credit risk management has been a challenging issue for the whole economic factors.

Thus, the researcher in this study has attempted to analysis the risk, challenges, management measures of the sample banks due to the lending in the Real Estate sector. Since, NRB has not made provision of publishing detail segregation of lending in Real Estate sector prior F.Y. 2066/67 the data were not available, thus the researcher has done data analysis of three fiscal year to study the impact of real estate sector in credit risk management of the sample banks.

4.1.10.1 Lending in Real Estate Sector of Machhapuchre Bank Ltd. (MBL)

Table 4.11

Lending in Real Estate Sector of Machhapuchre Bank Ltd. (MBL)

(Rs. In Millions)

Real Estate Sector	2068/69	% of Total Loans and Advances	2067/68	% of Total Loans and Advances	2066/67	% of Total Loans and Advances
Residential Real Estate (Except Personal Home Loan up to 10 Million)	176.73	1.28%	157.17	1.07%	779.27	5.20%
Business Complex and Residential Apartment Construction	486.08	3.53%	487.03	3.31%	485.21	3.24%
Income Generating Commercial Complex	130.14	0.94%	192.76	1.31%	-	-
Other Real Estate Loan (Land Purchase and Plotting)	1,930.97	14.02%	2,211.02	15.01%	3,038.97	20.30%
Total Real Estate Loan	2,723.92	19.78%	3,047.97	20.69%	4,303.44	28.74%
Total Loans and Advances	13,773.92		14,731.04		14,972.53	

Source: Annual Reports

From Table 4.11, we can see that MBL has 28.74% lending in Real Estate sector in the beginning of restrictive policy adopted by NRB and has been downsized to 19.78% in the interim period of F.Y. 2068/69. Composition of real estate portfolio covers the higher contribution of Land purchase and plotting i.e. 20.30% in F.Y. 2066/67 compared to 14.02% in F.Y. 2068/69. As shown by the data the bank has been able to downsize its lending but since the ceiling of Land Purchase and plotting is 10% to be maintained till Asadh end 2070, it is yet to be achieved.

4.1.10.2 Lending in Real Estate Sector of Kumari Bank Ltd. (KBL)

Table 4.12
Lending in Real Estate Sector of Kumari Bank Ltd. (KBL)

(Rs. In Millions)

Real Estate Sector	2068/69	% of Total Loans and Advances	2067/68	% of Total Loans and Advances	2066/67	% of Total Loans and Advances
Residential Real Estate (Except Personal Home Loan up to 10 Million)	183.96	1.13%	227.54	1.55%	183.65	1.24%
Business Complex and Residential Apartment Construction	522.28	3.22%	557.30	3.80%	507.56	3.44%
Income Generating Commercial Complex	-	-	-	-	-	-
Other Real Estate Loan (Land Purchase and Plotting)	1,958.50	12.08%	2,169.87	14.79%	3,092.45	20.94%
Total Real Estate Loan	2,664.74	16.44%	2,954.71	20.15%	3,783.66	25.62%
Total Loans and Advances	16,211.29		14,666.31		14,765.91	

Source: Annual Reports

From Table 4.12, it shows KBL has been maintaining its real estate lending within the ceiling of Nepal Rastra Bank (NRB) since the restrictive policy in lending in this sector has been adopted. In F.Y. 2066/67 KBL has its highest portfolio in Land Purchase and Plotting as 20.94% and it has been downsized to 12.08% in the interim period of F.Y. 2068/69. But since the ceiling of NRB to be maintained within 2070 Asadh is 10% in the sub-sector Land Purchase and Plotting, KBL is still to downsize it. But the total

composition of portfolio seems to be manageable; however the concentration is only on Land purchase and plotting.

4.1.10.3 Comparative Analysis of Lending in Real Estate Sector of Sample Banks

Since, this study is done to assess credit risk management by comparative study of KBL and MBL, the comparative analysis of real estate lending of both banks is presented below:-

Figure 4.12

Comparative Analysis of Lending in Real Estate Sector of MBL and KBL

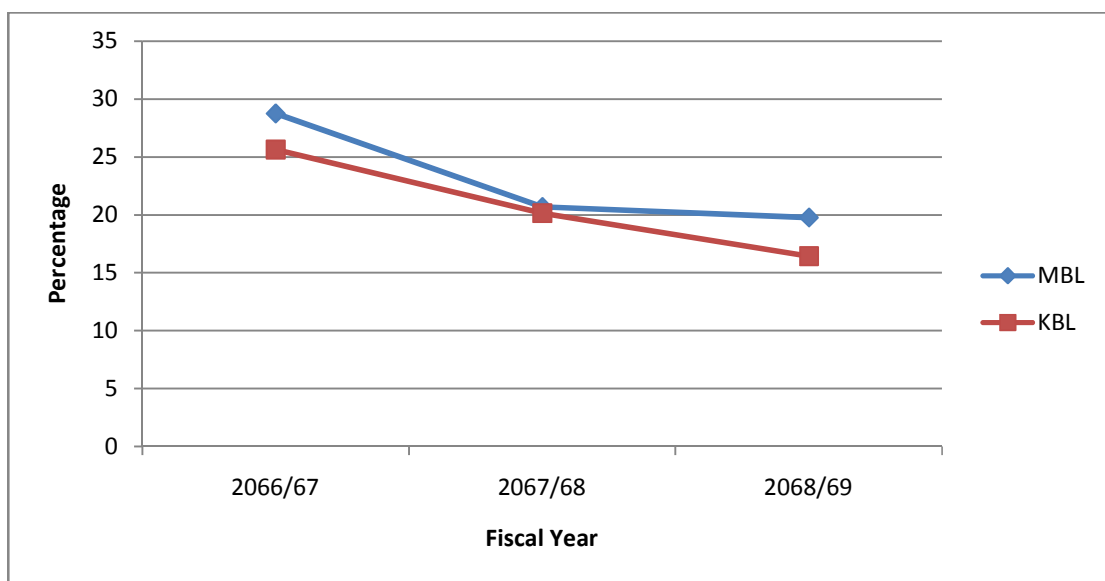


Figure 4.12 exhibits the comparative study of real estate exposure of sample banks in 3 year period. Both the banks KBL and MBL have been downsizing its real estate exposure in this period. But KBL position seems to be comfortable as compared to MBL. MBL started its exposure with 28.74% in F.Y. 2066/67 as compared to 25.62% of KBL in the same year. As of 2069 MBL has been able to downsize to 19.78% of its portfolio whereas KBL has downsized to 16.44% of its exposure.

Though, the data shows the position of the banks to be comfortable in credit risk management due to the real estate lending but the qualitative factor is not considered in this study. In the running days the loan in this sector has been in risk of default. Interest payment, sale of the assets, principal payment of these types of loan couldn't be made.

Financial statements of all the banking and finance sectors show the provision amount in increasing trend and the major source of it is real estate sector.

4.1.11 Product wise Lending of the Sample Banks

Banks have different nature of Loans which they sell to the consumers. The different product of the loans they sell can be Real Estate Loans, Margin Type Loans, Terms Loans, Hire Purchase Loans, and Overdraft etc. Different types of Loans are determined as per the requirement of the market and the focus of the bank in the individual product. Concentration of Banks in the sale of few products may cause risk. Thus the risk must be diversified by varying the nature of products so that the risk can be minimized and the wealth of the institutions can be maximized.

In credit risk management the product management of loan plays a vital role. Long term loans such as terms loans, project financing etc have maturity risk and interest rate risk as well as long terms loans are affected by the economic and political situation of the country. Whereas the short term nature loan such as working capital loan, Import loans etc are very vulnerable. They shift from one institution to another in very short period of time. In this study the researcher has analyzed the product wise lending of the sample banks in the recent years and the comparative study (average of two years) of product type loans and advances of the sample bank in presented below:

Table 4.13
Comparative Analysis of Average Product Wise Loan to Total Loan

(Rs. In Millions)

Product	MBL				
	2068/69	2067/68	2066/67	3 year average	% of Total Loan
Real Estate Loan	2787.16	3,048.42	3,371.97	3,069.18	21.47%
Personal Home Loan	578.32	573.67	786.11	646.03	4.52%
Margin Type Loan	128.67	29.75	54.35	70.92	0.50%
Term Loan	2562.64	2,170.06	2,249.90	2,327.53	16.28%
Working Capital Loan	4751.72	5,513.42	5,675.85	5,313.66	37.17%
Other Loan	2374.97	3,395.72	2,834.86	2,868.52	20.07%
Total Loans and Advances	13183.48	14,731.04	14,973.04	14,295.85	100%

Source: Annual Reports

Table 4.14
Comparative Analysis of Average Product Wise Loan to Total Loan

(Rs. In Millions)

Product	KBL				
	2068/69	2067/68	2066/67	3 year average	% of Total Loan
Real Estate Loan	2569.08	2,924.71	3,600.01	3,031.27	20.10%
Personal Home Loan	1417.78	1,064.96	1,138.56	1,207.10	8.01%
Margin Type Loan	266.06	257.20	369.18	297.48	1.97%
Term Loan	2854.55	2,189.22	2,271.85	2,438.54	16.17%
Working Capital Loan	8592.72	7,424.23	6,859.38	7,625.44	50.57%
Other Loan	133.33	775.99	527.15	478.82333	3.18%
Total Loans and Advances	15833.52	14,636.31	14,766.12	15,078.65	100%

Source: Annual Reports

Figure 4.13
Comparative Analysis of Average Product Wise Loan to Total Loan

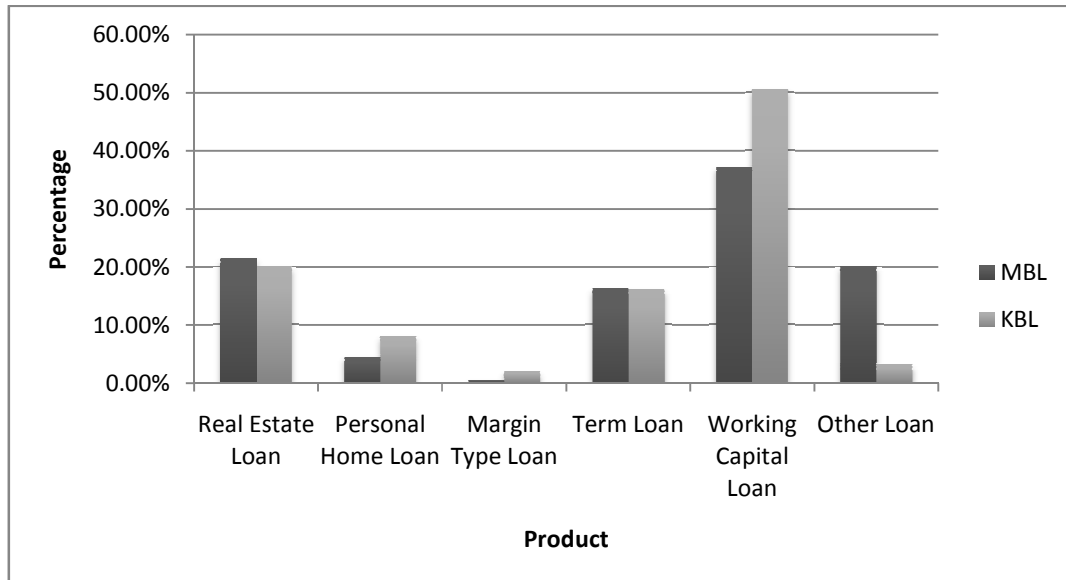


Figure 4.13 and Table 4.13 and 4.14, comparative financing of loans and advances of the 3 year period in individual product of the sample bank is presented. Since, the Nepalese banks were mandatory to publish loans on product wise concentration since F.Y. 2066/67, the data was not available for past period. In the Table 4.13 Figure 4.13 both KBL and MBL has its high amount of financing in Working Capital Loan i.e. 37.17% of MBL and 50.57% of KBL. Both banks have near about equal lending in the real estate sector in these three years i.e. 21.47% of MBL and 20.10% of KBL. MBL has non-significant amount of financing in Margin type Loan i.e. 0.50% compared to 1.97% of KBL. And in the other Loan type (generally banks include small loans mortgage types loans, small personal overdrafts etc.) MBL has significant difference in financing compared to KBL. MBL has 20.07% financing in other loans compared to 3.18% of KBL.

4.1.12 Security-wise Lending of the Banks

Bank finances different types of loans in different sectors of economy via various loan products but the security of the loan is the major factor in financing. As the loan is granted with the money of depositor held in the bank and safeguarding the depositor assets is the most major concern of the banks. If the depositors do not have faith in the

institution, the whole financial system can crash in a very short time. Thus the lending must be secured by creditworthiness assets or guarantees. Nepal Rastra Bank (NRB) has made different provisions in lending against the security for the loans. It has clearly made provisions for punishing the parties involved in manipulating the value of assets for financing the loan including valuator, customer, staffs, regulatory authorities and other parties involved in this action. Security wise lending involves major credit risk management functions. Collateral valuation, security documentation, safeguarding of the assets, Insurance of the assets etc are the major parts of credit risk management in security wise lending of the loan.

In this study researcher has focused to study the securities of the loans granted throughout the study period and interpret them for scientific credit risk management. The detail study of classification of loans and advances according to the security of the loans of sample banks is presented hereunder.

4.1.12.1 Security wise lending of Machhapuchre Bank Ltd. (MBL)

Table 4.15

Security wise lending of Machhapuchre Bank Ltd. (MBL)

(Rs. In Millions)

Securities of Loans	2068/69	2067/68	2066/67	2065/66	2064/65	2063/64	2062/63	Average
Secured	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Movable/Immovable Assets	92.58%	93.09%	94.94%	93.77%	87.91%	88.86%	83.81%	91.78%
Guarantee of Local Licensed Institutions	1.56%	0.23%	1.57%	1.45%	0.64%	5.16%	2.59%	1.60%
Government Guarantee	1.09%	-	-	-	-	-	-	1.51%
Guarantee of Internationally Rated Bank	-	-	-	-	-	-	-	-
Export Documents	-	0.62%	-	-	-	-	-	0.79%
Fixed Deposit Receipts	3.34%	3.07%	0.89%	2.20%	2.70%	3.14%	2.01%	2.47%
Government Bonds	-	0.88%	0.87%	0.40%	-	-	0.04%	0.68%
Counter Guarantee	-	1.70%	-	-	-	-	-	2.16%
Personal Guarantee	0.21%	0.22%	0.79%	0.77%	1.10%	2.52%	-	0.81%
Other Securities	1.21%	0.19%	0.93%	1.42%	7.65%	0.31%	11.55%	2.42%
Unsecured	-	-	-	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Source: Annual Reports

As presented in the above Table 4.15, MBL exposure is highest in the loan against Movable/Immovable Assets i.e., 91.78% average throughout the study period followed by fixed deposit receipt i.e., 2.47%. MBL has not provided loan against unsecured sources and Loan against guarantee of internationally rated agencies and Counter guarantee throughout the study period. But Loans against personal guarantee is significantly high in MBL. MBL has in an average 0.81% of its Loan and advances against Personal guarantee and the highest exposure against this was 2.52% in F.Y. 2063/64. This result shows that MBL does not have diversified business and is still operating in small sector of financial instruments.

4.1.12.2 Security wise lending of Kumari Bank Ltd. (KBL)

Table 4.16
Security Wise Lending of Kumari Bank Ltd. (KBL)

(Rs. In Millions)

Securities of Loans	2068/69	2067/68	2066/67	2065/66	2064/65	2063/64	2062/63	Average
Secured	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Movable/Immovable Assets	93.17%	94.09%	94.57%	90.87%	91.69%	82.36%	79.40%	90.84%
Guarantee of Local Licensed Institutions	-	-	-	-	-	-	1.96%	1.06%
Government Guarantee	0.81%	0.98%	-	-	-	-	-	1.14%
Guarantee of Internationally Rated Bank	-	-	-	-	-	-	-	-
Export Documents	-	-	0.02%	0.01%	-	0.14%	1.47%	0.23%
Fixed Deposit Receipts	1.27%	0.69%	0.36%	0.37%	0.98%	1.18%	1.22%	0.83%
Government Bonds	-	-	0.05%	-	-	-	0.01%	0.03%
Counter Guarantee	-	-	-	-	-	-	-	-
Personal Guarantee	-	-	-	-	-	-	0.26%	0.14%
Other Securities	4.74%	4.24%	5.02%	8.74%	7.33%	16.33%	15.69%	7.70%
Unsecured	-	-	-	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Source: Annual Reports

As presented in Table 4.16 of security wise lending of Kumari Bank Ltd, it has been found that the major security of loans and advances of KBL is Movable/Immovable

Assets i.e. average 7 year lending as 90.84% followed by other securities i.e. 7.70% Of total secured loan. The bank does not have unsecured loan and it has only once provided the loan against personal guarantee i.e. in F.Y. 2062/63 which was 0.26%. In terms of the collateral of the loans and advances of KBL it is found to be less risky. Loans against Government guarantee, guarantee of international rated agencies, counter guarantee is found to be zero and very non-significant loans is granted against security of guarantee of local institution, Export documents, fixed deposit receipt, government bonds and personal guarantee.

From this result we can also say that business of Nepalese banking sector is not diversified till date, collecting deposit and lending the collected fund is only seem to be the major function of the Commercial banks. It has adopted the proper credit risk management technique for security of the loans but the quality of the assets is not considered in this study. We can say that Nepalese banking sector is heavily dependent on fixed collateral financing though the business of any enterprises is sound.

4.2 Corporate Governance in the Sample Banks

In Nepal in the recent years, many banking scandals have occurred due to the poor corporate governance. Poor Corporate governance has been a major source of credit risk. In the recent time, Nepal Development Bank went into liquidation process and then Samjhana Finance Company followed it. And then Gurkha Development Bank Ltd, Nepal Share Market Finance Ltd and Development Bank were declared crisis-ridden. Over the last two years, many instances of bad governance have appeared. Central Bank declared that directors of United Development bank taking loans for themselves and Kunja Bihari Kayal, Executive chairman of Public Development Bank Ltd, Indra Humagain Chief of Infrastructure Development Bank found to be taken loans themselves.

Thus, due to the instances presented in thesis study, the researcher found it very important to study the corporate governance factor that has higher significance for credit risk. Though the corporate governance is the qualitative factor and which cannot be assessed by the available financial data, researcher has attempted to evaluate the corporate governance in the sample banks i.e. MBL and KBL by comprehensive study of available research articles, personal interviews and other available sources.

4.2.1 Corporate Governance in Machhapuchre Bank Ltd. (MBL)

Machhapuchre Bank Ltd (MBL) has been facing major credit risk since its inception and it has not been able to grow compared to other older commercial banks of Nepal. Poor corporate governance has been a source of problem. NRB has instructed the Chairman of MBL to step down from his position as chairman in 2002. The decision was taken after the central bank's Monitoring and supervision Department found out that the Chairman was Managing Director of another company that was blacklisted by the Credit Information Center (CIC). Similarly NRB has many times commented on credit lending process of MBL. As published in the different newspapers, MBL has done lending in different high concentrated portfolios (e.g. Avco International, Cosmic Group etc), where the governance factor was not taken in to the account. Since, Banks are obliged to publish the corporate governance status as required by the Securities Registration and Issuance Regulation 2065 (Related to Sub Rule (2) of Rule 22), the corporate governance status published as per the above obligation by MBL as of Poush End 2068 is stated below:-

In order to increase the standard of corporate governance, following actions has been initiated by the bank:

- a. The Board of Directors is fully accountable and responsible to the share holders of the Banks.
- b. Audit Committee of the Banks has been timely monitoring the corporate governance status and providing the information to the Board of Directors.
- c. The Board of Directors is fully committed to implement the instructions of External auditors and the supervision department of NRB.

4.2.2 Corporate Governance in Kumari Bank Ltd. (KBL)

Kumari Bank Ltd (KBL) has been in limelight due to its management and shareholder conflict for a long time. NRB has many times taken keen interest in the conflict of Kumari Bank Ltd. In the past few years 3 CEO's has been replaced in the bank due to the management conflict. Moreover, the Board members have been found guilty in corporate governance time by time and the loans has been granted without the proper credit risk judgment. KBL has not been able to appoint a CEO since departure of Radesh Pant. Many topmost members of management team have left the bank due to the poor corporate governance. The corporate governance status as required by the Securities

Registration and Issuance Regulation 2065 (Related to Sub Rule (2) of Rule 22), the corporate governance status published as per the above obligation by KBL as of Poush End 2068 is stated below:-

In order to increase the standard of corporate governance, following actions has been initiated by the bank:

- a) The Board of Directors of the bank is the topmost body responsible and accountable to ensure that the bank has embraced superior standard of corporate governance. Further, various sub-committees of the Board including the Audit Committee continuously review the workings of various areas of the Bank and provide direction and support where necessary.
- b) Clear demarcation has been made in the Bank between various conflicting areas of the Bank like Credit, Risk and Operations, with each unit being headed by senior personnel directly accountable to the acting CEO.
- c) Management Committee (MANCO), chaired by the acting CEO and comprising of officers directly reporting to the acting CEO, meets on a weekly basis to assess the performance of the Bank and take key decisions. Similarly, committees like Asset Liability Committee, Operations Committee etc meet at regular intervals to critically review performance and initiate proactive actions.

4.3 Analysis of Primary Data

Researcher has undergone through questionnaire and personal interview for collection and analysis of primary data. Questionnaire was distributed personally in email to the staffs of MBL and KBL. The questionnaires have been filled by 13 employees each from KBL and MBL. The researcher has prepared different 11 sets of questions in the questionnaire and the result drawn from the research is as presented hereunder-

1. Major Risk Proportion in Nepalese Banks

11 of the respondent has defined credit risk as the major challenging banking risk in Nepal followed by market risk by 8 people and liquidity risk by 3 of them.

2. Governance role in risk Management

Regarding the role of the governing body i.e. NRB, 18 of the respondent has agreed for the role of NRB in the present scenario for the long term development of Banks in Nepal. However, 6 respondents are not been satisfied with the restrictive role of NRB in the liberalized economy. They put their view for the free functioning of financial institution in the country.

3. Sector and Security wise lending of Banks

In the concentration risk perspective the respondents were found to be restrictive. All the respondents have put their view for lending in sector not to be more than 30%. Among them 18 respondents has restricted their view within 20% whereas for the security of the loan respondents have put their view for business potential. They do not agree for extending credit only against the fixed assets. They have said that if the business proposal is profitable the security matters come to be secondary.

4. Borrower aspect in Credit Risk Management

For extending credit, the respondents have rated the 5C's aspect of the borrower with equal weight age. They have put views for Character, Collateral, Capital, Condition and Capacity to be equally important. If the banks are not aware for the customer characteristics the loan may be at high risk.

4.3.1 Test of Hypothesis

From the collected primary data, researcher has set the two hypothesis problems to draw result of the primary data.

Hypothesis-I

To test whether there is significant difference between Observed frequencies and Expected frequencies or not in ranking the major challenging banking risk in Nepal.

In 26 random samples of respondents, it contains the following ranking distribution. To test is to draw the ranking of banking risk by the staff of both banks.

Table 4.17

Hypothesis test regarding the ranking of major Banking risk in Nepal

Bank	Credit Risk	Market Risk	Operational Risk	Country Risk	Liquidity Risk	Total
MBL	54	42	37	41	18	192
KBL	53	50	31	40	23	197
Total	107	92	68	81	41	389

Source: Questionnaire survey (See Annex 4 for details)

Null Hypothesis (H₀): There is no significant difference in the distributions of observed and expected frequencies regarding ranking of major banking risk in Nepal.

Alternative Hypothesis (H₁): There is significant difference in the distributions of observed and expected frequencies regarding ranking of major banking risk in Nepal.

Taking level of significance (α):5%

Test Statistic: Under H₀, the χ^2 -statistic is:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where, O = observed frequency

Calculation of expected frequencies (E)

$$\begin{aligned} \text{Expected frequency of } R_1C_1 &= \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}} \\ &= \frac{192 \times 107}{389} = 52.81 \end{aligned}$$

$$\text{Test Statistic} = \chi^2 = \sum \frac{(O-E)^2}{E}$$

$$\chi^2 = 1.11$$

Degree of Freedom (d.f.) = (R-1) (C-1)

$$= 4$$

(See Annex 9 for details)

Hence, χ^2 tabulated at 5% level of significance for 4 d. f. is 9.49

Decision: Since, tabulated value of χ^2 is greater than calculated value of χ^2 (i.e. $9.49 > 1.11$), thus null hypothesis is accepted which means that there is no significant difference between observed and expected frequencies in ranking of major banking risks in Nepal.

Hypothesis-II

To test whether there is significant difference between Observed frequencies and Expected frequencies or not in ranking the major source of credit risk in Nepal.

In 26 random samples of respondents, it contains the following ranking distribution. To test is to draw the ranking of banking risk by the staff of both banks.

Table 4.18

Hypothesis test regarding the ranking of major source of credit risk in Nepal

Bank	Corporate Governance	Credit Policy	Management	Credit Concentration in Real Estate	External Economic Environment	Total
MBL	52	40	45	31	28	196
KBL	53	44	44	28	26	195
Total	105	84	89	59	54	391

Source: Questionnaire survey (See Annex 4 for details)

Null Hypothesis (H_0): There is no significant difference in the distributions of observed and expected frequencies regarding ranking of major source of credit risk in Nepal.

Alternative Hypothesis (H_1): There is no significant difference in the distributions of observed and expected frequencies regarding ranking of major source of credit risk in Nepal.

Taking level of significance (α):5%

Test Statistic: Under H_0 , the χ^2 -statistic is:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where, O = observed frequency

Calculation of expected frequencies (E)

$$\begin{aligned} \text{Expected frequency of } R_1C_1 &= \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}} \\ &= \frac{196 \times 105}{391} = 52.63 \end{aligned}$$

$$\begin{aligned} \text{Test Statistic} = \chi^2 &= \sum \frac{(O-E)^2}{E} \\ \chi^2 &= 0.36 \end{aligned}$$

$$\begin{aligned} \text{Degree of Freedom (d.f.)} &= (R-1) (C-1) \\ &= 4 \end{aligned}$$

(See Annex 10 for details)

Hence, χ^2 tabulated at 5% level of significance for 4 d. f. is 9.49

Decision: Since, tabulated value of χ^2 is greater than calculated value of χ^2 (i.e. 9.49 > 0.36), thus null hypothesis is accepted which means that there is no significant difference between observed and expected frequencies in ranking of major source of credit risk in Nepal.

From the hypothesis test it can be concluded that, the bankers do have uniformity in the major banking risk and the source of credit risk in Nepal. Most of the employees in the both banks have rated credit risk as the major challenging banking risk. The source of credit risk in Nepalese banking industries have been identified as corporate governance and management during the questionnaire survey.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter includes the brief findings, views, conclusion and recommendation for credit risk management and governance for the commercial banks and regulatory authority by the researcher personal judgment with the facts drawn in the research process. The researcher has divided this section into three sections i.e. Summary, Conclusion and recommendation for conclusion of the research on credit risk management and governance.

5.1 Summary

Summary of this research is based on the major findings of the studies. The study has been conducted with the data secondary data published by the sample banks i.e. MBL and KBL in their annual reports, regulatory authority i.e. Nepal Rastra Bank and other published and unpublished sources and primary data with the means of hypothesis test. The finding is based on the result drawn from the data analysis and presentation by the sole discretion of the researcher.

Credit risk management is concerned with the internal procedures, guidelines, standard, norms set by the institutions whereas the governance is related with the controlling and monitoring mechanism and capacity of the regulatory body. The researcher has focused the data presentation and analysis to find the conclusion and recommendation in the same area. Researcher has undergone through the different aspect in total credit process of the commercial banks in Nepal with the help of sample banks i.e. Machhapuchre bank Ltd. (MBL) and Kumari Bank Ltd. (KBL). Credit risk management/governance has been a major challenging part for both the banks and the regulatory body. Researcher has selected the sample banks on judgment sampling method in the view that both banks have been established at the near time, having same level of balance sheet figures and both suffering to grow. Researcher has attempted to study the major banking risk in the Nepalese commercial banks and has provided special concentration in the credit risk management and corporate governance in the sample banks. Moreover this study has too been concerned to study the role of regulatory body in credit risk management.

The literature review has been done on the basis of Basel II norms, regulations made by the regulatory body i.e. Nepal Rastra Bank (NRB), different national and international articles, journals, newspapers and many other published and unpublished sources. Moreover researcher has gone through the comprehensive study of old studies in the related topic i.e. thesis on Tribhuvan university central library. Data Collection has been based on primary and secondary data. Most of the conclusions have been drawn on the basis of data published by the sample banks and regulatory authority. Questionnaires and personal interview has been source of collection of primary data. A statistical tool, financial tools (ratio analysis) and hypothesis testing was used and the tools of research design for the presentation and analysis of data collected from the primary and secondary sources. Researcher has taken the data of six consecutive years for the justice of the study wherever the data was available for whole period.

The researcher has found the major risk in MBL and KBL as the credit risk. The credit risk covers near about to 2/3 position in the total banking risk in the both banks. The credit risk of these banks mainly have aroused due to the non-payment of loan by the borrower, poor credit assessment level and policies, corporate governance and non-liquid security. Due to the liquidity crisis in the recent years both the banks have heavily suffered. Without considering the capital, C/D ratios of the banks have been on the average, i.e., 79.29% for MBL and 86.90% for KBL. Loans and advances of both the banks have increased in the F/Y 2068/69 compared to the previous year. MBL portfolio has increased by 1,373.39 million and KBL portfolio has increased by 2,951.12 million. Non-payment of loan increases the Non-performing loan portfolio in the current years NPL of MBL has decreased significantly i.e. 2.84% from 4.17% in the previous year. KBL has suffered in increase of 1.09% compared to the old year. Increase in Loan loss provision is on increasing trend in the banks and financial institution in these days. MBL and KBL has too been part of it. In the study period MBL has average LLP of 2.76% compared to 1.64% of KBL, but in the present time, MBL has 2.95% provision and KBL has 2.69%. Both the banks do have maintained the capital adequacy ratio in the threshold defined by NRB both in the terms of primary capital and the supplementary capital. KBL has better position in CAR to MBL.

In terms of the sector wise and security wise lending of the sample banks, both the banks have highest portfolio in the manufacturing sector and have extended the credit against security of Movable and immovable properties. Diversification of business has not been seen in the both banks. The real estate lending is within the limit defined by the NRB. However the exposure of MBL is high in this sector. Corporate governance is the major challenge in the both banks. Dispute in the management committee, interest of BODs in the unhealthy credit lending to the borrowers, hidden involvement of the Director's in the firms where the credit has been extended are the most major challenge of corporate governance in the banks and financial institution. Whereas the Board gives undue pressure for the management to increase the profit at any cost, which results for the manipulation of accounts to increase the profit by recovering the interest suspense by providing the loan by the institution itself, playing in the loopholes for provisioning of the accounts etc. Thus corporate governance has been a rising issue in the credit risk management and governance. For this research, the researcher has collected the primary data through the questionnaire. From the study it has been found that the respondent has argued the credit risk management as the most challenging job of the banks in Nepal and corporate governance as the major cause of credit risk. They has supported for the restrictive policies and guidelines issued by the NRB for the growth of the Banks and financial institutions in the long run.

At the part of the governing body, NRB has implemented the Basel II framework for the risk based management. It has directed the banks and financial institution to strictly follow the Unified Directives, 2069. NRB has made the supervision strict, time to time and has adopted punishment to the institution found to be unhealthy. NRB has been publishing different risk measures techniques, policies, directives and circulars for mitigation of the credit risk. NRB has adopted the strict merger and acquisition policy for sustainable growth of the banks. NRB has directed the institutions for mitigating the concentration risk by not extending huge portion of the credit in a single sector. Real Estate sector has been restricted to 25% (including residential real estate and business complex. With the merger of its own kind, in fact the first biggest merger of two independent groups of the existing Machhapuchchhre Bank Ltd. and the then Standard

Finance Company with a paid up capital of above one billion rupees has given a big impetus to the Bank.

5.2 Major Findings

The major findings of the study are mentioned below:-

1. The liquidity position of the both banks MBL and KBL is at the utmost level. They have been maintaining tight position. Due to the liquidity factor both banks have to face major challenge at the time of liquidity crisis. Due to the degradation of image of both the banks in the public the deposit of the banks has been downsized in the recent days. As per the NRB directives the banks are allowed to add capital in the calculation of C/D ratio, thus due to this factor they have been able to maintain their C/D ratio. Though the deposit of the sample banks has been decreased the assets i.e. total loans and an advance is on increasing trend.
2. The Non-performing loan (NPL) of MBL is on increasing trend whereas NPL of KBL is justifiable. NRB has put different restrictive provisions for the institutions whose NPL is higher 5%. They cannot collect deposit, extend branches and has to face many restrictions. MBL non-performing loan is increasing to meet that restriction. It means the credit rating, credit appraisal, credit administration and governance factor of MBL is not at sufficient standard to control the credit risk. But KBL NPL seems to be natural. We can rank KBL superior to MBL in credit management factor.
3. The Loan Loss provision (LLP) of MBL is higher than of KBL. MBL have 2.76% average provision for 7 years whereas KBL has 1.61% provision for the same period. MBL provision is above the par level of loan loss provision for a high performing bank. The loans of MBL are under the risk of loss. This means the credit assessment system of MBL is not at the effective standard or the corporate governance is very much weak in MBL. Whereas KBL's provision is at the average. NRB has set rules for compulsory 1% provision, thus KBL 1.61% is at par level.
4. Capital adequacy ratio is one of the major tools for effective credit risk management/governance. Since the minimum ratio to be maintained by the banks is

10%, the ratios of both bank is above the minimum criteria. But KBL seems is higher comfortable zone than of MBL. MBL just have the ratio above minimum i.e. 12.21% whereas KBL's ratio is 12.54%. Capital adequacy ratio defines the risk weight provided to the loans and advances. Thus we can say that MBL's loan is at riskier position than of KBL. But in the means of Tier 1 Capital, MBL ratio is slightly better than of KBL whereas in the terms of Tier 2 Capital, ratio of KBL is better than of MBL.

5. Concentration risk is the most challenging risk of the banking risks. Since, the optimum ratio of lending in a single sector is regarded to be within the ceiling of 20%, MBL has crossed the ceiling of it. This means if the sector is in risk or problem, there is a chance of the bank being bankrupt. MBL has higher chance of it, whereas KBL has more diversified portfolio than of MBL. MBL has heavily done lending in the undisclosed sector i.e. others. The undisclosed sector cannot show the good health of banks and the banks cannot the monitor either the loan is being used for the defined sector or not. Thus MBL loan is on greater risk than of KBL. Talking about the real estate sector both the banks have decreased its portfolio below 20% as on 2069, but there is the chance of banks diverting the heading of loans of real estate to the others heading to hide the actual lending. Even though the KBL lending in real estate sector (16.44%) is better than of MBL (19.78%).
6. The banks do have different product for lending the depositor's collection in the form of loans and advances. Both the banks have higher exposure of Working capital Loans i.e. 50.57% of KBL and 37.17% of MBL. But in the Other Loan type MBL has 20.07% exposure than of 3.18% of KBL. The other loan includes Gold Loan, Loan against Fixed deposit receipts, SME Loan etc. thus we can say that MBL has good exposure in consumption loans than of KBL. But the exposure in Margin lending is higher of KBL (1.97%) to MBL (0.50%).
7. In terms of Security wise lending both the banks have higher exposure in loan against Movable/Immovable assets. It covers 91.78% of MBL whereas 90.84% of KBL. This shows the non-diversification of business of the both banks. Mainly only the fixed assets are regarded only the means of security for extending the credit in both the banks. Both banks during the study period do not have extended the credit

against the unsecured sources. But MBL has extended credit against personal guarantee up to (average in 7 years) 0.81% whereas in the same period KBL has extended credit to 0.14%. Diversification of assets to Export of goods, counter guarantee, guarantee against international rated agencies etc. are not found in significant volume in the both banks. Thus we can say that both the banks are involved in extending the credit not in terms of business but against fixed assets.

8. Talking about the corporate governance, researcher during his personal interviews with the staffs of both banks in related department has found that the credit too being extended with the personal decision of many BOD members and even from the higher management i.e. without proper credit risk assessment. Corporate governance has too been a major challenge for operational risk. Higher management are found to be directing the lower level staff for disbursement of loans without proper security documentation, insurance coverage, working capital assessment i.e. Drawing power, mortgage of the security etc. Operational risk has been found to be disregarded by the higher officials.
9. From the hypothesis test it can be concluded that, the bankers do have uniformity in the major banking risk and the source of credit risk in Nepal. Most of the employees in the both banks have rated credit risk as the major challenging banking risk. The source of credit risk in Nepalese banking industries have been identified as corporate governance and management during the questionnaire survey.

5.3 Conclusion

This study has been conducted in the topic “Credit risk management and governance, in special reference to MBL and KBL”. From the finding it is concluded that the credit risk management has a very significant impact on the performance, profitability, social responsibility and other different areas of the both banks. In the present time, the credit risk management and governance has become a major challenge of the banks and financial institution. As well as credit risk governance role of the regulatory body has a significant role in the effective credit risk management by the banks. Besides the credit risk, operational risk, liquidity risk, country risk and market risk are other emerging

challenges to the Nepalese banks. As other commercial banks and financial institutions diversification of Loans and advance of MBL is limited to some sectors and this bank need to diversify its assets compared to KBL. MBL concentration is under the undisclosed sector i.e. others. Leaving the leading large banks of Nepal, the functions of the other MBL and KBL are only limited to collecting the deposits and providing the loans and advances. They do not have diversified business. Only the interest income has become the major source of income. They do not have focused for earning fees, commissions, discount, treasury income, foreign exchange income etc, which are not fund based. These banks are not able to diversify their business by developing the innovative loan products, all the products are followers of the any other institutions. Small and Medium Enterprises (SME) have not been a major source of investment of the sample banks. The targeted borrowers are always the large borrowers. The huge concentration in the real estate sector by the most of the banks and financial institutions including the co-operatives has been a burden for the economy and the institutions including the borrowers. Asset quality of MBL is vulnerable. The account does not seem consistent. There is high rise and fall in the Non-performing loan (substandard, doubtful and bad loan) time to time. KBL seem more consistent than MBL. Minimum requirement of the capital adequacy has been maintained by the both banks but it's only minimal. There is possibility of capital fund below the standard if a large borrower is in problem. KBL seems more comfortable in maintaining capital adequacy than of MBL. In the recent time, liquidity crisis too has caused a serious problem for the good health of the organizations. But in terms of liquidity both the banks are in comfortable zone. As other all commercial banks the loans and advances of these banks is secured by the real estate. Hypothecation, government bonds, treasury bills etc. have not been a major source of security for the assets in the both banks. In terms of security wise lending we can conclude that both the banks have been in path of the industry for adopting the real estate as primary collateral for all types of loans and advances. Corporate governance is the major challenge in these institutions. The intention of the promoters, directors of earning the period in the short run and management for showing the high profit in the short run has caused serious problem for the sound health of the banks. This has challenged the corporate governance. Lack of corporate governance has aroused the credit risk. Though

both banks have published commitment for corporate governance time to time, we hear and read different scandals of corporate governance in these banks. The major directors of the KBL have been black listed too.

The credit policy guidelines (CPG) have been developed by these institutions, but the proper implementation of it has not been made yet. CPG has been only properly implemented when extending the credit to the small borrowers, but when it comes to the large corporate borrowers, only the personal judgment of the top management works in extending the credit. Commercial banks too have been manipulating the accounts to show the high profits by not providing the provision for the accounts held under the provision and they have been providing the loan for recovery of interest and installments.

5.4 Recommendations

In this research, researcher has undergone through the comprehensive study of credit risk management and governance. Study has been primarily focused on the present status of risk in Nepalese Banks, role of governing body in risk management, corporate governance for effective credit risk management on the basis of sample banks i.e. Machhapuchre Bank Ltd (MBL) and Kumari Bank Ltd. (KBL). The researcher has analyzed the available data of the sample banks and drawn the hypothesis from the primary data. Based on the detail study on credit risk management and governance, researcher on his individual discretion has drawn following recommendations for credit risk management and governance:-

1. The main thing in extending the credit is the policies, guidelines that have been developed by the banks. Both MBL and KBL should strictly follow the Credit Policies Guidelines (CPG) for effective credit risk management. Operational procedures has very important role to assist the credit process. Management should not intervene in the operational procedures. Operational task like safeguarding of assets, proper documentation, credit rating of the borrower etc. must be strictly followed.
2. Risk cannot be fully eliminated but can be minimized by diversification. Diversification means distributions of assets in different sectors of the economy.

The sample banks should diversify their investment and loans/advances in different areas such as agriculture, manufacturing sector, deprived sector, service sector etc. Optimum portfolio should be maintained. Diversification helps to minimize the concentration risk. The banks should form Research and Development (R & D) department for creation of diversified portfolio. R & D helps to find the new sector of the investment. Lending in the unproductive sectors like real estate should be minimized and the real estate loan must be targeted for the end users i.e. those who purchases the home for their residential or commercial purpose not for re-sale.

3. Small and Medium Enterprises (SME) Loan are the small volume of the loan. They are targeted to the self-employment group. MBL and KBL should diversify their business in the small and ungrouped part of the economy. Default risk in the SME loan is very minimal and the average yield in these types of loan is much higher than of the corporate loans. This helps to increase their profitability and decrease the proportion of the non-performing loans.
4. Credit to deposit ratio (C/D) ratio too has been a major problem of banking industry in these days. This is due to the concentration on source of deposit in the large and institutional depositors. The banks should spread its source of collection of fund in the mass volume of population. They can expand their branches the rural areas of the country from where the low cost fund saving deposit can be attracted. There are many rural parts in the country where the government banks i.e. RBB, NBL and ADBL have only their presence and they have been availing low cost fund from those parts. MBL and KBL by offering small increment in interest rate in those areas can collect a large volume of deposit which will help them for high profitability and a sound C/D ratio at all the times.
5. Both the banks should strengthen their internal management and risk controlling mechanism. Operational procedures must be strictly followed. Credit rating system must be strictly implemented to assess the quality of the borrower. Credit approval process should be made simplified subject to strict compliance of all necessary procedures. Top management should strictly monitor the status of the borrowers time by time for timely payment of the obligations by the borrower. As well as the Board of Directors (BODs) and top management should give undue pressure for the

employees for breaching the credit policy guidelines while extending the credit. The top management must ensure that any of the rules and regulations is not breached while extending the credit.

6. Corporate Governance is the fundamental aspect of credit risk management. If the corporate governance is strengthened the chance of banks to be bankrupted is very much minimal. MBL and KBL should ensure the strict compliance in the corporate governance. The decision making process should be made transparent. This will increase credit worthiness of the bank among the people. This shall help the sample banks to promote their brands among the people. Both the MBL and KBL should ensure to the strict compliance with the directive no. 8 of Unified Directive 2069 for effective corporate governance.
7. It has been found that the banks and financial institutions have been playing in the loopholes of the rules and regulations. The sample banks, MBL and KBL should not play in those areas. If possible the banks should create further safety than prescribed. This is mostly seen in the accounting principles. The banks sometimes decrease loan loss provision from the internal approval which is not the valid task.
8. Now at the part of regulatory authority, Nepal Rastra Bank (NRB) should strengthen its supervision, audit department. NRB should timely monitor all banks and financial institutions for effective functioning of the institutions. Preventive measures should be taken by the central bank than correcting the irregularities of the institutions. NRB should timely warn the institutions for any mal functioning. It is said that the NRB is being directly influenced by the Banker's association and the respective banks for not taking any of the hard decisions in favor of the bank. The NRB should closely monitor this issue.
9. Nepal Rastra Bank (NRB) has been changing its policies time and again. NRB should not change the policies by the influence of the pressure groups. It should promulgate the required rules by studying the ground reality of the country and the economic situation of the country. NRB should clarify the directives and should not allow the institutions to play in the loopholes of the policies. Volatile rules and regulations make the economic environment unstable. Economic activity cannot

grow in the unstable economy. Thus the NRB should formulate the required policies for sustainable growth of the banking and economic sector.

10. Both banks should implement Anti-money Laundering Policy to ensure that it has given high priority to combat money laundering. It should provide adequate measures for taking action against the willful defaulters. It should draft and implement law relating to e-banking, Debit/Credit Card, etc. to facilitate the growth of e-banking.

BIBLIOGRAPHY

- Adhikary D.K., Pant, R. & Dhungana, B.R. (2007). *Study on Financial Sector Reform in Nepal*. Kathmandu: Nepal Rastra Bank.
- Bajracharya, Manandhar, S. & Bhattarai, R. (2005). *Corporate Financial Management (Theory & Practice)*. Kathmandu: Buddha Academic Publishers & Distributors Pvt. Ltd.
- Ban, S. (2011). *Credit Risk Management*. An Unpublished Masters Degree Thesis, Tribhuvan University.
- Banks & Financial Institution Act, 2063.
- Basel Committee on Banking Supervision (2004). *International Convergence of Capital Measurement and Capital Standards, A revised Framework*.
- Basel Committee on Banking Supervision (2004). *International Convergence of Capital Measurement and Capital Standards, A revised Framework*.
- Basel Committee on Banking Supervision (2006). *International Banking and Financial Market Developments, Quarterly review*.
- Basel Committee on Banking Supervision (2007). *International Convergence of Capital Measurement and Capital Standards: A revised framework*.
- Basnet, K. (2011). *Money Supply, Inflation and Credit Risk Management*. An Unpublished Masters Thesis, Submitted to Tribhuvan University.
- Bhandari, D.R. (2003). *Banking and Insurance*. Kathmandu: Aayush Publications.
- Brownbridge, M. (1998). *The Causes of Financial Distress in Local Bank in Africa and Implication of Prudential Policy*. United Nations Conference on Trade and Development (UNCTAD), Geneva, Switzerland.
- Cadbury, S.A. (1992). *The Code of Best Practice*. Report of the Committee on the Financial Aspects of Corporate Governance, United Kingdom (UK) Gee and Co Ltd.
- Claessens, S., Krahen, J & Lang, W.W. (2005). The Basel II reform and Retail Credit Markets. *Journal of Financial Services Research* 28:5-13.

- Clarke, T. (2007). *International Corporate Governance*. London and New York: Routledge.
- Company Act, 2063.
- Cornett, M., Millon, F. & Saunders, A. (2006). *Financial Institutions Management: A Risk Management Approach*. (5th ed.). New Delhi: Tata McGraw Hill.
- Eells, R. (1960). *The Meaning of Modern Business: An Introduction to the Philosophy of Large Corporate Enterprise*. New York: Columbia University Press.
- Farnando, A.C. (2008). *Corporate Governance Principles, Policies and Practices*. Dorling Kindersley (India) Pvt. Ltd.
- Gajurel, D. (2009). Market Structure of Nepalese Banking Industry, Synergy: A *Journal of Management*, Faculty of Management, Tribhuvan University, Kathmandu, Nepal.
- Gupta S.C. (2004). *Fundamentals of Statistics*. (6th ed.). Bombay: Himalayan Publishing House
- Hildreth, R. (2001). *The History of Banks*. (2nd ed.). Canada: Batoche Books Limited.
- Holton, G.A. (2004). Defining Risk. *Financial Analysts Journal*, A Paper exploring the foundations of risk. 60 (6): 19–25.
- ISO31000:2009 Risk Management Standard.
- Jaodekar, P.M. & Benjamin, F., (2001). *Credit Risk*. The Economic Times, India. 29(106):4
- Joshi, P.R. (2002). *Research Methodology*. (2nd ed.). Kathmandu: Buddha Academic Enterprises Pvt. Ltd.
- Kasaju, N. (2010). *Credit Management in Joint Venture Bank in Nepal*. An Unpublished Masters Degree Thesis, Tribhuvan University.
- Kim, D., Santomero, A, & Anthony, M. (1988). Risk in Bank and Capital Regulation, *The Journal of Finance*, Vol. XLIII, American Finance Association.
- King, J.L. (1998). *Defining Operational Risk*. New York: The Collapse of Barings.
- Levine, R. (2003). *The Corporate Governance of Banks*, Global Corporate Governance Forum, Washington DC: World Bank.

- Macey, J.R. & O'Hara, M. (2003). *The Corporate Governance of Banks*. New York: Federal Reserve Bank, Economic Policy Review, Vol. 9 (1): 91-107.
- Maharjan, R. (2010). *Credit Risk Assessment under Retail and Corporate Financing by Commercial Banks in Nepal*. An Unpublished Masters Degree Thesis, Tribhuvan University.
- MOF (2011). *Economic Survey 2011/12*. Kathmandu: Ministry of Finance, Government of Nepal.
- Mullineux, A. (2006). *The Corporate Governance of Banks*. UK: Department of Accounting and Finance, The Birmingham Business School, The University of Birmingham, Birmingham.
- Nepal Rastra Bank (2011). *Banking and Financial Statistics No. 57*. Kathmandu: Nepal Rastra Bank.
- Nepal Rastra Bank (2011). *Monetary Policy 2011/12*. Kathmandu: Nepal Rastra Bank
- Nepal Rastra Bank (2011). *Unified Directives of Nepal Rastra Bank, 2068*. Kathmandu: Nepal Rastra Bank
- Nepal Rastra Bank (2012). *Bank Supervision Report 2008*. Kathmandu: Nepal Rastra Bank.
- Nepal Rastra Bank (2012). *Quarterly Economic Bulletin*. Kathmandu: Nepal Rastra Bank. Vol. 48.
- Nepal Rastra Bank (2012). *Unified Directives of Nepal Rastra Bank, 2069*. Kathmandu: Nepal Rastra Bank
- Niraula, M. (2007). *Corporate Governance in Banks, Financial Institution*. Kathmandu: Nepal Rastra Bank Publication
- O'Brien, T.H. (1983). Guidelines for Agented Credit Revisited: A Necessary Interaction, *The Journal of Commercial Bank lending* 65 (7):7-15.
- Organization for Economic Co-operation and Development (OECD) (2006). *Policy Brief on Corporate Governance of Banks in Asia*. Paris: France
- Oxford English Dictionary

- Panta, R. (2006). *Challenges in Banking: A Nepalese Diaspora*. Kathmandu: Nepal Banker Association
- Raghavan, R.S. (2005). *Credit Risk as well as Credit Risk Management in Commercial Banks*, *The Economic Times, India* Vol 34(83): 4.
- Santomero, A.M. (1996). *Commercial Bank Risk Management: An Analysis of the Process*. Pennsylvania, USA: The Wharton School, University of Pennsylvania.
- Shrestha, M.K & Bhandari, D.B. (2010). *Financial Markets and Institutions*. Kathmandu: Asmita Books Publishers and Distributors.
- Shrestha, P. (2009). *Corporate Governance in Financial Institutions of Nepal*. An Unpublished Masters Degree Thesis, Tribhuvan University.
- Singh, S.K. (2010). *A Study of Corporate Governance on listed Banking and Financial Institutions*. An Unpublished Masters Degree Thesis, Tribhuvan University.
- Sthapit, A.B., Gautam, H., Joshi, P.R. & Dongal, P.M. (2006) *Statistical Methods*. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.
- Swarens, R.B. (1990). Managing Risk in Consumer Banks Portfolio. *The Journal of Commercial Bank Lending*, 72(4): 4-8.
- Thapa, R.B. (2008). *Corporate Governance: Need & Significance in Nepalese Banking System, Challenges of Governance in South Asia*. Kathmandu.
- The Kathmandu Post (March 26, 2012) Vol XX No. 143 P. 8.
- Van Horne, J.C. (1998). *Financial Management and Policy*. New Delhi: Prentice Hall of India Pvt. Ltd.
- Wesley, D.H. (1993). Credit risk Management: Lessons for Success, *The Journal of Commercial Bank Lending*, 75:32-38.
- World Bank (1991). *Managing Development - The Governance Dimension*. USA: Washington D.C.
- Wu, C-H & Huang (2007). The Risk Management and Monitoring Practices of Local and Foreign Banks in Taiwan: An Empirical Study. *International Journal of Management*, 24(1):61-69.

Yadav, R.P., Dhakal, B., Tamang, G., Shrestha, H.K. & Panta, K.R. (2009). *Statistical Methods*. (2nd ed.). Kathmandu: Asmita Books Publishers & Distributors P. Ltd.

Websites:

www.cbs.gov.np (Central Bureau of Statistics, Nepal)

www.economictimes.indiatimes.com (The Economic Times)

www.ekantipur.com (The Kathmandu Post)

www.kumaribank.com (Kumari Bank Ltd.)

www.machbank.com (Machhapuchre Bank Ltd.)

www.mof.gov.np (Ministry of Finance, Nepal)

www.nepalbankers.com (Nepal Bankers Association)

www.nepalstock.com (Nepal Stock Exchange)

www.nrb.org.np (Nepal Rastra Bank)

www.thehimalayantimes.com (The Himalayan Times)

www.wikipedia.org (Wikipedia)

APPENDIX

Annex-1

Capital Fund Requirement

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%

Source: NRB Directive, 2069

Mathematically,

$$\text{Minimum Capital Fund Required} = \frac{\text{Total Capital Fund}}{\text{Total Risk Weighted Exposure}}$$

Annex-2

Elements of Tier 1 Capital (Primary or Core Capital)

1. Paid up Equity Capital
2. Irredeemable Preference Share
3. Share Premium
4. Proposed Bonus Equity Share
5. Statutory General Reserve
6. Retained Earnings available for distribution to shareholders
7. Un-audited current year cumulative profit, after all provisions including staff bonus and taxes
8. Capital Redemption Reserves
9. Capital Adjustment reserves
10. Dividend Equalization Reserves
11. Any other type of reserves notified by NRB from time to time for inclusion in Tier 1 capital

Source: NRB Directive, 2069

Annex-3

Elements of Tire 2 (Supplementary) Capital

1. Cumulative and/or redeemable preference shares with maturity of five years and above
2. Subordinated term debt fully paid up with a maturity of more than 5 years
3. Hybrid capital instruments
4. General loan loss provision limited to a maximum of 1.25% of total Risk Weighted Exposures
5. Exchange equalization reserves created by banks
6. Investment adjustment reserves
7. Revaluation reserves
8. Any other type of reserves notified by NRB from time to time for inclusion in Tier 2 capital

Source: NRB Directive, 2069

Annex- 4

Responses of the Questionnaires

1. Do you agree Banking is the high risk business?

	Strongly Agree	Agree	Disagree	Strongly Disagree
MBL	4	8	1	0
KBL	2	8	3	0

2. What is the situation of Nepalese Banking industry in these days?

	Growing	Static	Problematic	Worse
MBL	2	4	7	0
KBL	1	4	7	1

3. Which is the major challenging Banking risk in Nepal?

	Credit Risk	Market Risk	Operational Risk	Country Risk	Liquidity Risk
MBL	6	4	2	0	1
KBL	5	4	0	2	2

4. How do you rank the following risk as a major challenge of Nepalese Banking sector? (Rank 5 for the highest priority and 1 for the lowest)

Ranking by MBL employees

Rank	Credit Risk	Market Risk	Operational Risk	Country Risk	Liquidity Risk	Total
1	0	1	1	4	7	13
2	1	4	3	3	3	14
3	3	4	6	0	0	13
4	2	4	3	4	0	13
5	7	1	0	3	1	12
(Rank X Frequency)	54	42	37	41	18	192

Ranking by KBL employees

Rank	Credit Risk	Market Risk	Operational Risk	Country Risk	Liquidity Risk	Total
1	0	1	4	1	7	13
2	0	0	3	5	4	12
3	6	3	3	0	1	13
4	5	5	3	1	0	14
5	3	4	0	5	1	13
(Rank X Frequency)	53	50	31	40	23	197

5. Which do you think is a major source of Credit risk in Nepalese Banking Sector?

	Corporate Governance	Credit policy	Management	Credit Concentration in Real Estate	External Economic Environment
MBL	5	1	4	3	0
KBL	4	2	3	3	1

6. How do you rank the following aspect for credit risk management? (Rank 5 for the highest priority and 1 for the lowest)

Ranking by MBL employees

Rank	Corporate Governance	Credit policy	Management	Credit Concentration in Real Estate	External Economic Environment	Total
1	1	2	0	4	5	12
2	2	2	1	5	4	14
3	0	3	7	1	2	13
4	3	5	3	1	1	13
5	7	1	2	2	1	13
(Rank X Frequency)	52	40	45	31	28	196

Ranking by KBL employees

Rank	Corporate Governance	Credit policy	Management	Credit Concentration in Real Estate	External Economic Environment	Total
1	0	2	1	3	8	14
2	3	0	3	4	2	12
3	3	3	4	3	0	13
4	2	2	5	2	1	12
5	6	5	1	0	2	14
(Rank X Frequency)	53	44	44	28	26	195

7. To be concentrated in lending in a single sector is more risky than a diversified portfolio for the banks. What to you think?

	Strongly Agree	Agree	Disagree	Strongly Disagree
MBL	8	5	0	0
KBL	12	1	0	0

8. What is the optimum proportion of lending in a single sector by the bank?

	0-10%	10-20%	20-30%	30-40%	40% and more
MBL	4	4	5	0	0
KBL	3	7	2	1	0

9. Do you agree NRB restrictive directives/policies issued in the recent days can develop a sustainable banking industry in the long run?

	Strongly Agree	Agree	Disagree	Strongly Disagree
MBL	1	10	2	0
KBL	1	8	4	0

10. Do you agree only Fixed Assets (Mainly Land and Building) is only the major security for providing loan.

	Strongly Agree	Agree	Disagree	Strongly Disagree
MBL	1	2	9	1
KBL	2	4	6	1

11. Which do you think is the most important aspect of customer while extending the credit?

	Character	Collateral	Capital	Condition	Capacity
MBL	4	1	2	1	5
KBL	4	3	1	2	3

KUMARI BANK LIMITED
PRINCIPAL INDICATORS
(For Previous 6 years)

Schedule 4.31

Particulars	Indicators	F/Y	F/Y	F/Y	F/Y	F/Y	F/Y	F/Y
		2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
1. Net Profit/Gross Income	%	14.20%	16.26%	15.52%	19.61%	16.18%	16.54%	15.32%
2. Earnings Per Share	Rs.	9.74	17.58	16.59	22.70	16.35	22.04	24.24
3. Market Value Per Share	Rs.	-	369.00	443	830	1,005	700	468
4. Price Earning Ratio	Ratio	-	20.99	26.71	36.56	61.47	31.76	19.31
5. Dividend (including Bonus) on Share Capital	%	-	-	21.05%	21.05%	10.53%	10.58%	12.00%
6. Cash Dividend on Share Capital	%	-	-	1.05%	1.05%	0.53%	0.55%	12.00%
7. Interest Income/Loans & Advances	%	8.39%	8.33%	5.89%	7.63%	7.61%	8.34%	11.53%
8. Employee Expenses/Total Operating Expenses	%	11.48%	11.96%	12.32%	17.22%	15.66%	10.37%	9.24%
9. Interest Expenses on Total Deposit and Borrowings	%	3.41%	4.48%	4.20%	3.69%	3.87%	5.10%	6.51%
10. Exchange Fluctuation Gain/Gross Income	%	4.20%	2.77%	3.95%	2.34%	3.87%	3.73%	1.84%
11. Staff Bonus/Total Employee Expenses	%	26.88%	34.24%	24.59%	25.08%	22.32%	24.04%	31.93%
12. Net Profit/Loans & Advances	%	1.32%	1.55%	1.48%	1.88%	1.52%	1.77%	2.12%
13. Net Profit/Total Assets	%	0.89%	1.13%	1.15%	1.43%	1.16%	1.41%	1.59%
14. Total Credit/Deposit	%	76.91%	90.62%	90.20%	85.84%	90.20%	94.17%	79.45%
15. Total Operating Expenses/Total Assets	%	4.53%	4.76%	5.39%	4.83%	4.90%	6.03%	7.55%
16. Adequacy of Capital Fund on Risk Weightage Assets								
a. Core Capital	%	12.50%	10.20%	11.28%	10.26%	10.40%	9.08%	10.29%
b. Supplementary Capital	%	0.91%	1.01%	1.08%	0.96%	4.01%	2.47%	2.05%
c. Total Capital Fund	%	13.41%	11.21%	12.36%	11.22%	14.41%	11.56%	12.34%
17. Liquidity (CRR)	Ratio	11.02%	3.44%	2.71%	3.65%	1.91%	7.13%	8.02%
18. Non Performing Loans/Total Loans	%	0.76%	0.95%	0.92%	0.73%	1.32%	0.44%	0.50%
19. Weighted Average Interest Rate Spread	%	3.82%	3.85%	4.58%	4.67%	4.30%	4.17%	3.28%
20. Book Net Worth Per Share	Rs.	114	141	149	137	128	137	136.73
21. Total Shares	Number	5,000,000	5,000,000	6,250,000	7,500,000	10,700,000	11,860,992	13,060,159
22. Total Employees	Number	115	143	177	212	256	260	364
23. Others		-	-	-	-	-	-	-



प्रमुख सूचकाङ्क

कठिना विगत ५ वर्षको परिसूचकहरू

अनुसूची ४.३१

विवरण	सूचकाङ्क	आ. ब. २०६२/२०६३	आ. ब. २०६३/२०६४	आ. ब. २०६४/२०६५	आ. ब. २०६५/२०६६	आ. ब. २०६६/२०६७
१. खुद नाफा/कूल आम्दानी प्रतिशत	प्रतिशत	२०.८०	८.६६	८.१५	९.४३	३.७४
२. प्रति शेयर आम्दानी	रु	१८.७४	९.०२	१०.३५	८.३३	४.९६
३. प्रति शेयर बजार मूल्य	रु	३२०.००	६२०.००	१,२८५.००	४२०.००	२८२.००
४. मूल्य आम्दानी अनुपात (PE Ratio)	अनुपात	१७.०८	६८.७४	१२४.९९	५०.४१	५६.९०
५. शेयर पूँजीमा नगद लाभांश (बोनस सहित)	प्रतिशत	१५.७९	-	२१.०५	-	१०.००
६. शेयर पूँजीमा नगद लाभांश मुक्तानी	प्रतिशत	०.७९	-	१.०५	-	-
७. व्याज आम्दानी/कर्जा तथा सापट	प्रतिशत	८.८०	९.४९	८.८९	०.०८	०.११
८. कर्मचारी खर्च/कूल सञ्चालन खर्च	प्रतिशत	१०.३९	९.७७	११.८३	०.११	०.१०
९. कूल निक्षेप तथा सापटीमा व्याज खर्च	प्रतिशत	३.६०	४.१०	३.६५	३.७२	६.१३
१०. सटही घटबढ आम्दानी/कूल आम्दानी	प्रतिशत	५.२९	(०.२२)	५.०३	५.००	२.३१
११. कर्मचारी बोनस/कूल कर्मचारी खर्च	प्रतिशत	३०.७०	२०.९८	२२.२९	१९.३७	६.८२
१२. खुद नाफा/कर्जा सापट	प्रतिशत	२.१८	१.०१	०.९५	०.९५	०.४९
१३. खुद नाफा/कूल सम्पत्ति	अनुपात	१.४८	०.६९	०.६८	०.७०	०.३५
१४. कूल कर्जा/निक्षेप	प्रतिशत	७७.८७	७७.२५	८०.७४	८३.२५	८०.७८
१५. कूल सञ्चालन खर्च/कूल सम्पत्ति	प्रतिशत	४.६१	५.१६	४.८३	४.८८	७.३५
१६. जोखिम भारत सम्पत्तिमा पूँजीकोषको पर्याप्तता						
(क) प्राथमिक पूँजी कोष	प्रतिशत	११.९४	१०.६८	१०.९७	१०.९६	९.९४
(ख) पूरक पूँजी कोष	प्रतिशत	०.८५	१.३०	१.३१	०.८८	१३०.२२
(ग) कूल पूँजी कोष	प्रतिशत	१२.७९	११.९७	१२.२९	११.०४	११.२५
१७. तरलता (CRR)	अनुपात	५.१८	८.२९	८.०५	१२.३३	५.८९
१८. निष्क्य कर्जा/कूल कर्जा	प्रतिशत	०.२८	१.१६	१.०४	२.३३	२.३२
१९. व्याज दर अन्तर (Weighted Average Interest Rate Spread)	प्रतिशत	३.४०	३.३८	३.९६	३.६०	३.४०
२०. बुक नेटवर्थ	रु	९३१,०९१,३५७	१,०००,२६४,६३५	१,१६३,३४६,९५८	१,७००,१९८,०९६	१,७७३,५१०,८९५
२१. कूल शेयर	संख्या	७,१५०,०००	८,२१६,५१३	८,२१६,५१३	१४,७९२,६९६	१,६२७,१६५,५६०
२२. कूल कर्मचारी	संख्या	१९६	२३४	३१३	४३९	४९२
२३. प्रति कर्मचारी उत्पादकत्व	रु हजारमा	६८३.६६	३१६.६१	२७१.६२	-	१४९.०१
२४. प्रति शेयर कितानी मूल्य	रु	१३०.२२	१२१.७४	१४१.५९	११४.९३	१.०९
२५. तरल सम्पत्ती/निक्षेप	प्रतिशत	२५.२९	२८.०८	२२.८९	२२.६८	२६.४७

KUMARI BANK LTD
5 YEARS BALANCE SHEET

Rs. In Million

Capital and Liabilities	2009/10	2008/09	2007/08	2006/07	2005/06
1. Share Capital	1,306.02	1,304.94	1,070.00	750.00	625.00
2. Reserve and Funds	479.74	320.02	294.89	275.63	238.85
3. Debenture and Bonds	400.00	400.00	400.00	-	-
4. Borrowing Outstandings	429.74	293.42	100.00	212.97	251.40
5. Deposit Liabilities	17,432.25	15,710.39	12,774.28	10,557.42	7,768.96
6. Bills Payable	42.31	70.09	65.30	16.55	11.92
7. Proposed Dividend Payable	156.82	6.53	-	-	6.58
8. Income Tax Liability	-	0.23	(9.65)	11.01	0.30
9. Other Liability	275.59	432.89	331.79	94.73	107.27
Total Capital and Liabilities	20,522.46	18,538.51	15,026.60	11,918.31	9,010.27

Assets	2009/10	2008/09	2007/08	2006/07	2005/06
1. Cash Balance	574.07	549.11	565.64	190.75	135.79
2. Balance with Nepal Rastra Bank	1,664.00	1,120.76	244.58	384.84	210.55
3. Balance with Banks/Financial Institutions	485.77	106.43	123.62	96.52	43.28
4. Money at Call and Short Notice	120.00	30.00	55.36	372.22	145.00
5. Investments	2,296.87	1,510.83	2,138.80	1,678.42	1,394.95
6. Loans and Advances	14,765.91	14,593.35	11,335.09	8,929.01	6,891.86
7. Fixed Assets	285.64	247.83	222.00	189.32	91.93
8. Non Banking Assets	-	-	3.14	2.39	3.59
9. Other Assets	330.22	380.26	338.37	74.83	93.32
Total Capital and Liabilities	20,522.47	18,538.56	15,026.60	11,918.31	9,010.27

MACHHAPUCHCHHRE BANK LTD
5 YEARS BALANCE SHEET

Capital and Liabilities	2009/10	2008/09	2007/08	2006/07	2005/06
1. Share Capital	1,627.20	1,479.27	901.34	821.65	715.00
2. Reserve and Funds	146.31	220.93	262.01	178.61	216.09
3. Debenture and Bonds	-	-	-	-	-
4. Borrowing Outstandings	150.00	-	88.51	228.50	131.68
5. Deposit Liabilities	18,535.92	15,596.79	11,102.24	9,475.45	7,893.30
6. Bills Payable	15.40	24.44	10.31	21.48	11.37
7. Proposed Dividend Payable	-	-	8.65	4.31	5.64
8. Income Tax Liability	-	11.76	3.04	7.37	10.46
9. Other Liability	203.96	157.58	122.45	70.23	86.29
Total Capital and Liabilities	20,678.79	17,490.78	12,498.55	10,807.61	9,069.83

Assets	2009/10	2008/09	2007/08	2006/07	2005/06
1. Cash Balance	1,049.33	743.20	560.32	385.94	280.42
2. Balance with Nepal Rastra Bank	1,094.66	1,755.98	893.30	785.69	489.09
3. Balance with Banks/Financial Institutions	315.73	267.47	134.95	112.45	44.41
4. Money at Call and Short Notice	661.56	-	70.00	694.00	718.47
5. Investments	2,096.79	1,246.16	1,443.55	1,278.47	1,190.83
6. Loans and Advances	14,289.79	12,516.01	8,642.32	7,129.89	6,068.43
7. Fixed Assets	732.29	664.16	535.89	259.53	104.94
8. Non Banking Assets	-	4.50	-	3.39	12.53
9. Other Assets	438.63	293.30	218.22	158.25	160.70
Total Capital and Liabilities	20,678.79	17,490.78	12,498.55	10,807.61	9,069.83

total loan loss provision to npl

Ratio	
MBL	KBL
453.97	115.55
115.01	201.24
313.88	121.52
144.82	313.61
283.81	267.87
54.57	154.81
104.25	121.76

AVERAGE	210.04	185.19
S.D	143.98	78.99
CV	0.69	0.43

Total Loan Loss Provision (LLP) to Loans and

Ratio	
MBL	KBL
1.27	1.06
1.55	1.47
3.26	1.64
4	1.35
4.03	1.34
2.28	1.73
2.95	2.69

AV	2.76	1.61
SD	1.11	0.52
CV	0.40	0.32

Total Capital Fund to Risk Weighted Asset (RWA) Ratio

Ratio	
MBL	KBL
12.79	12.34
11.97	11.2
12.29	14.41
11.18	11.56
11.25	12.34
10.95	13.76
15.04	12.2

AVERAGE	12.21	12.54
S.D	1.41	1.15
CV	0.12	0.09

Core Capital (Tier 1)

Ratio
MBL
11.94
10.68
10.97
10.3
9.94
10.06
14.11

AV	11.14
SD	1.47
CV	0.13

Supplementary Capital (Tier 2) to Risk Weighted Asset (RWA) Ratio

Ratio	
MBL	KBL
0.85	1.08
1.3	0.96
1.31	4.01
0.88	2.47
1.3	2.05
0.86	1.41
0.93	0.9

AVERAGE	1.06	1.84
S.D	0.23	1.12
CV	0.21	0.61

Credit to Deposit Ratio (CD Ratio)**Total Loans and Advances to**

MBL	KBL
76.89	88.71
74.9	84.56
78.14	88.73
79.94	92.89
80.77	84.71
89.76	86.34
74.62	82.33

AVERAGE	79.29	86.90
S.D	5.17	3.51
CV	0.07	0.04

MBL	KBL
67.09	76.49
65.13	74.66
68.8	75.44
71.46	78.74
70.17	71.95
72.83	71.19
66.01	72.03

AVERAGE	68.78	74.36
S.D	2.66	2.57
CV	0.04	0.03

Total Non-Performing (NPL) Loan to Total Loans and Advances Ratio

MBL	KBL
0.28	0.92
1.35	0.73
1.04	1.35
2.76	0.43
1.42	0.5
4.17	1.12
2.84	2.21

AVERAGE	1.98	1.04
S.D	1.23	0.57
CV	0.62	0.55

Advances Ratio

1) to Risk Weighted Asset (RWA) Ratio

tio

KBL

11.26
10.24
10.4
9.09
10.29
12.35
11.3

10.70

1.04

0.10

Total Assets Ratio