"Capital Adequacy of Commercial Banks: The Nepalese Evidence (With reference to Nepal Bank Ltd., Rastriya Banijya Bank Ltd. and NABIL Bank Ltd.)"

A THESIS

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ABBREVIATIONS

A. D.	:	Anno Domini
A/C	:	Account
AIG	:	Accord Implementation Group
ATM	:	Automated teller Machine
BAFIA	:	Bank and Financial Institutions Act
BIS	:	Bank for International Settlement
BS	:	Bank Supervision
CAELS	:	Capital Adequacy, asset quality, earnings, liquidity and sensitivity
CAMELS	:	Capital Adequacy, Asset Quality, Management Aspects, Earnings, Liquidity and Sensitivity
CAR	:	Capital Adequacy Ratio
FIs	:	Financial Institutions
FY	:	Fiscal Year
G10	:	Group of Ten
G7	:	Group of Seven
GDP	:	Gross Domestic Product
Govt.	:	Government
IMF	:	International Monetary Fund
Jan.	:	January
NABIL	:	Nepal Arab Bank Limited
NBBL	:	Nepal Bangladesh Bank Limited
NBL	:	Nepal Bank Limited
NEPSE	:	Nepal Stock Exchange
NGBL	:	Nepal Grindlays Bank Limited
NGO	:	Non Government Organization
NIBL	:	Nepal Investment Bank Limited
NIC	:	Nepal Industrial and Commercial Bank Limited
NPA	:	Non Performing Assets
NRB	:	Nepal Rastra Bank
NSBI	:	Nepal SBI Bank Limited
Oct.	:	October
P/L	:	Profit and Loss

PCA	:	Prompt Corrective Action
QIS 5	:	Fifth Quantitative Impact Study
RBB	:	Rastriya Banijya Bank Limited
SCBL	:	Standard Chartered Bank Nepal Limited
Tier1	:	Core capital
Tier2	:	Supplementary Capital
TRWA	:	Total Risk Weighted Assets
TRWE	:	Total Risk Weighted Exposures
UK	:	United Kingdom
USA	:	United States of America

CHAPTER - I
INTRODUCTION

1.1 Background of the Study

The Nepalese Financial Sector is composed of Banking sector and non-banking sector. Banking sector comprises Nepal Rastra Bank (NRB) and Commercial Banks. The non-banking sector includes Development Banks, Finance Companies, Micro-credit Development Banks, Co-operative Financial Institutions, Non-governmental Organizations (NGOs) performing limited banking activities and other financial institutions such as Insurance Companies, Employee's Provident Fund, Citizen Investment Trust, Postal Saving Offices and Nepal Stock Exchange. Nepal has special characteristics of bank dominated financial sector. As the domestic capital and stock markets are in the initial stage of development, the banking sector largely dominates the entire financial sector. Within a period of two and half decades the Nepalese financial system has growth significantly both in terms of business volume and the size of assets and market. The period saw a number of financial institutions coming into existence with varied nature of operations and offering a wide range of financial service. At the beginning of the 1980s when the financial sector was not liberalized, there were only two commercial banks. During 1980s there were only few banks. After the liberalization in the 1990s, financial sector has made a progress both in term of the number of banks and financial institutions and their branches. As on Mid August 2009, the number of commercial banks is 26 based on the applications for established of new banks as well as for the up-gradation of other financial institution, the number is likely to grow in the near future as well.

The history of modern financial system in Nepal was begun in B.S.1994 with the establishment of Nepal Bank Ltd. as the first commercial Bank of Nepal. The bank was established to render services to the people and for the economic progress of the country. Prior to the establishment of Nepal Rastra Bank, it plays the role of Central banks also. The establishment of Nepal Rastra Bank, the central bank of Nepal in 2013 B.S under the Nepal Rastra Bank Act-2012 was a significant dimension in the development of the banking sector. The second Commercial Bank, the Rastriya Banijya Bank was established in the public sector in 1966 with the equity participation of HMG/ N and the NRB under the Rastriya Banijya Bank Act-1967. These banks are the pioneers of the Nepalese banking industry. They have the largest network and they have

their operations even in remote areas of the country. Rastriya Banijya Bank is fully owned by the Government while the Government has controlling stake in Nepal Bank Limited. As the financial market was barred for private investors till the mid 1980s, these two banks were the only players in the banking industry. The economic liberalization policy adopted in the mid 1980s brought about a surge in the banking industry. A large number of banks were established and the number continues to grow even today.

During the last two and half decades the Nepalese Financial System has grown significantly. Within this period the Nepalese financial sector has grown significantly both in terms of business volume as well as size of assets and markets. Nepal has a reasonably diversified financial sector, as evidenced by the number and variety of institution that play an active role in this sector, relative to Nepal's small and underdeveloped economic base.

Nepal Rastra Bank (NRB), the central bank of Nepal, established in April 26, 1956, under the NRB Act 2012 is the sole authority for licensing and supervising banks and financial institutions in Nepal. The act has empowered Nepal Rastra Bank to grant license to banks and financial institutions as well as to monitor, inspect and supervise them. The Act also empowers NRB to undertaken resolution measures in order to protect the interest of depositors. NRB has the authority even to revoke licenses in case of violation of prudential norms and relevant laws and regulations. NRB's regulatory and supervisory regime is limited to the Commercial banks, Development banks, Finance companies, Micro-credit development banks, saving and credit cooperatives and Non-government organizations licensed by Nepal Rastra Bank. The following table depicts the types and numbers of financial institutions licensed by NRB by mid- Jan 2009. Consequently, by the end of mid –Jan2009, altogether 235 banks and non- bank financial institutions licensed by NRB are in operation. Out of them, 26 are “A” class commercial banks, 63“B” class development banks, 77 “C” class finance companies, 15 “D” class micro-credit development banks, 16 saving and credit co-operatives and 45 NGOs as shown in table below:

Table: 1.1

Number of Licensed Financial Institutions

S.N.	Type of Financial Institutions	Class	Number
1	Commercial Banks	A	26
2	Development Banks	B	63
3	Finance Companies	C	77
4	Micro Credit Development Banks	D	15
5	Saving and Credit Co-operatives	Non-classified	16
6	Non-Government Organizations	Non-classified	45
Total			242

(Source: http://bfr.nrb.org.np/list_banks_n_non_banks_htm Mid July, 2009)

The business of bank supervision in the past was focused on validating bank's transactions, particularly the value of loan portfolios, which have been historically the principal source of problems for banks. In the process, supervisors would go through the balance sheet, assuring themselves that a bank's assets and liabilities were essentially as stated and that its reserves and net worth were real. Traditional forms of supervision are important regulatory tools but have some severe limitations. In particular, they are labor intensive and narrow in focus, as they look at many transactions to assess the condition of individual financial institutions at a point in time. They were focused on detecting minor mistakes rather than overall financial soundness and risk management aspect of the banks. Traditional supervision provides a snapshot of an institution's condition at a point of time. It is transaction oriented and usually more labor intensive than risk based supervision, thereby straining the scarce resources of most regulators.

Throughout the world, central challenge to bank regulators and supervisors was the stability of the financial system. Supervisory authorities all over the world are gradually moving towards adopting risk- based supervision. There is now a growing stress to adopt a more risk focused comprehensive approach, which is likely to contribute positively in the supervisory function. Through scrutiny of systems and procedures prevailing in supervised bank is an integral part of on-site inspection, there is scope for more focus on the risk profile of the banks. Supervisory bodies in the world are seeking more focused, responsive and tailored approach to supervision.

NRB issued Unified Directives to be complied by all financial institutions of the country. The Directives consist of 16 volumes. The NRB Directive no. 1 states about the Capital Adequacy Norms for financial institutions indicating the requirements of maintaining the Capital Fund to the prescribed ratios. The directives are said to be based on the internationally accepted norms of Basel Committee. The Basel Committee on banking supervision is a committee of banking supervisory authorities which was established by the central bank governors of the group of ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland and the United Kingdom and the United States. It usually meets at the Bank for International Settlements in Basel, Switzerland, where its permanent secretariat is located. Nepal Rastra Bank (NRB) is committed to adopt the best supervisory methods and practices and has been constantly endeavoring to enhance the sophistications and efficiency levels of its supervisory processes. In line with this philosophy, NRB has been continually updating the rules, regulations as well as the supervisory practices to deliver effective supervision.

1.2 Focus of the Study

The study is based on the Capital Funds of the commercial banks which are supposed to be adequate as the NRB Directive no. 1 which is related with Capital Adequacy Norms for commercial banks. The norms basically emphasize on the basic requirement of the Capital Fund that a commercial bank should possess. The fundamental objective of the norm is to safeguard the interest of the depositors. As per the norm, Capital Fund has been divided into two categories i.e. Core Capital Fund and Supplementary Capital Fund. At present, there are total 26 commercial banks in Nepal and this study is related to capital funds of Nepal Bank Limited, Rastriya Banijya Bank and NABIL Bank Limited. And the thesis report is mainly focused on accordance of the Capital Adequacy Norms of Nepal Rastra Bank (NRB) followed by these banks. The current supervisory process adopted by the Bank Supervision Department (BSD) is applied uniformly to all supervised institutions i.e., commercial banks. The current approach is largely on site inspection supplemented by off-site monitoring and the supervisory follow-up and action commences with the detailed findings of annual financial inspection. The process is based on CAMELS/CAELS approach where capital adequacy, asset quality, management aspects, earnings, liquidity and sensitivity to market

risk are assessed keeping in view the legal requirements of Acts and directives. The on-site inspections are conducted, to a large extent with references to the audited balance sheet dates and cut-off dates of financial years. The off-site surveillance plays a supplementary role. While in several external jurisdictions, the supervisory process extensively leverages on the work done by others, such as the internal and external auditors, the use made of these resources in Nepal is rather limited. This is gradually changing with the introduction of Long Form Audit Report.

NRB would be developing an overall plan for moving towards risk based supervisions (RBS) as outlined in monetary policy. The RBS will be a regime in which NRB's resources will be directed towards the areas of greater risk to its supervisory objectives. Risk-based supervision saves regulatory resources and helps to promote a more safe and sound financial system. It saves resources because it focuses regulatory resources on areas of highest risk and usually requires substantially less transaction testing. By getting institutions to manage risks as opposed to correcting symptoms of problems, as is often the case with traditional supervision, supervisors should focus their actions on correcting causes of problem and thereby requiring improvements in management practices and management systems.

The risk-based supervision will not be transaction based. It will be systems based inspection by the regular/supervisor. In this approach, the regulator and supervisor will go into details of the systems and procedures for managing and controlling risks. Risk-based supervision is an enhancement of top-down supervision. In the top-down approach, Problems are identified and defined, and the root causes for the problems are addressed. It focuses examination resources on an overall financial analysis of the financial institution under review, and it document and tests policies, procedures, systems, and management practices. When problems are disclosed, corrective actions are directed toward correcting the causes of the problems, not just the symptoms. If problems are identified that, in the opinion of the supervisor, significantly impact the safety and soundness of the institution, then bottom-up examination techniques may be necessary to quantify the problems in order to assess the adequacy of capital and liquidity. The Core Principles for effective banking supervision, promulgated by the Basel committee on Banking Supervisions, set out the minimum standards that are considered necessary for effective supervision. Core Principles have been used by

countries as a benchmark for assessing the quality of their supervisory system and for identifying future work to be done to achieve a baseline level of sound supervisory practices. Experience has shown that self-assessments of countries' compliance with the Core Principles have proven helpful for the authorities, in particular in identifying regulatory and supervisory shortcomings and settings priorities for addressing them.

Several of the principles embrace risk-based supervision and encapsulate the concepts developed over the past twenty years. However, because the core principles is a brief document and covers a variety of topics, it cannot fully explain the key differences between risk-based supervision and traditional regulatory practices or provide a systematic explanation of all the basic elements that would enable a regulatory agency to implement risk-based supervision. Although supervisory practices and processes are always evolving and improving over time, it is helpful to subject supervisory arrangements to scrutiny against internationally accepted benchmarks, and to consider where improvements can be made. To be effective, any such assessment must be undertaken. It is too easy for supervisors to assert critically that existing arrangements represent best practices when closer analysis would reveal otherwise. Realizing the importance of the core principles, NRB with technical support from IMF has completed a self assessment which was finalized after various rounds of discussions. The assessment highlighted area which needs improvement and in order to correct those deficiencies an action plan has been prepared. Nepal Rastra bank has already taken initiatives to address those deficiencies in accordance with the action plan.

1.3 A Brief Glimpse of the Banks under Study

1.3.1 Nepal Bank Limited *(Source: www.nepalbank.com.np)*

Nepal Bank Limited, The first bank of Nepal was established in November 15, 1937A.D. *(Kartik, 30, 1994)*. It was formed under the principle of Joint venture (Joint venture between govt. & general public). NBL's authorized capital was Rs. 10 million & issued capital Rs. 2.5 million of which paid up capital was Rs. 842 thousands with 10 shareholders. The bank has been providing banking services through its branch offices in the different geographical locations of the country.

Vision Statement

"To remain the leading financial institution of the country"

Mission Statement

Nepal Bank Limited seeks to provide an environment within which the bank can bring unique financial value and services to all customers. It will be a sound institution where depositors continue to have faith in the security of their funds and receive reasonable returns; borrowers are assured of appropriate credit facilities at reasonable prices; other service-seekers receive prompt and attentive service at reasonable cost; employees are paid adequate compensation with professional career growth opportunities and stockholders receive satisfactory return for their investment.

Values Statement

Nepal Bank Limited believes that his banking should be based on:

- Respect, services and safety for the customers we serve
- Respect, reward and opportunity for the people with whom we work
- Respect, cooperation and support for the economic community of Nepal

Objectives

Nepal Bank Limited has the following objectives:

- Continue to maintain leading share of banking sector with a significant presence in all major geographical areas in the country.
- Provide competitive and customer oriented banking services to all customers through competent and professional staff.
- Reclaim leadership within the national financial community.

1.3.2 Rastriya Banijya Bank *(Source: www.rbb.com.np)*

Rastriya Banijya Bank (RBB) is the fully government owned, and is the largest commercial bank in Nepal. RBB was established on January 23, 1966 (2022 Magha 10 BS) under the RBB Act. RBB provides various banking services to a wide range of customers including banks, insurance companies, industrial trading houses, airlines, hotels, and many other sectors.

RBB has Nepal's most extensive banking networks with over 118 branches. Through its branch network, RBB has been contributing to Nepal's economic development by providing banking services throughout the country.

RBB has many correspondent arrangements with major international banks all over the world that facilitate trade finance, bank originated personal funds transfers and inter-bank funds transfer via SWIFT. In a bid to promote remittance business, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks.

In addition RBB runs various programs i.e. banking with the poor, Micro Credit project for Women etc. to enhance the living standard of people as per the govt. directives. As well, RBB actively delivers various government programs to people living in remote parts of the country; these programs are intended to raise living standards

1.3.3 NABIL Bank Limited *(Source: www.nabilbank.com)*

NABIL Bank limited, the first foreign venture bank of Nepal, started operations in July 1984. NABIL was incorporated with the objectives of extending international standard modern banking services to various sectors of the society. Pursuing its objective, NABIL provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondents' banks across the globe.

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

Operations of the bank including day to day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state of art, world-renowned software from Infosys Technologies System, Bangalore, India, Internet banking system and Tele-banking system.

1.4 Statement of the Problem

The capital adequacy of a bank is determined by analyzing and appraising its capital position in relation to such factors as character of its management, character of its ownership, quality of operating procedure and capacity to provide the broadest service to the public. Over the years, regulatory authority and banking experts have devised several instruments and ratios so as to determine the safe and efficient conditions of a bank. They related capital to a key magnitude in the balance sheet of commercial banks. Regulators have become increasingly concerned that some banks do not hold enough capital and have increased capital requirements. If banks hold more capital, they can more easily absorb potential losses and are more likely to survive. Banks with higher capital ratios are therefore assigned a higher capital adequacy rating. However, a bank with a relatively high level of capital may fail if other components of its balance sheet are not properly managed.

The main reasons of failure of few joint venture banks in Nepal may be due to the manipulation of real data in balance sheet and neglecting the rules according to the NRB directive. The directives, if not properly addressed, may have potentials to destroy the financial system of the nation, as they are the only tools of the NRB to supervise and monitor the financial institutions. Implementation part of directives is more important than the directives themselves.

Since last 6 months, economy melt down of financial institution of world has been significantly increased. The world famous businessman Lehman brothers had become an insolvent and the US government and like UK, Norway, Germany and many countries have declared to give million dollar aid to recovery the banking crisis. In Nepal, the symptom has not come from the today financial crisis but in 2006 the problem of Nepal Bangladesh Bank limited had taught about minimum requirement of capital adequacy in financial institution.

Today's, the problem of Nepal Development Bank Limited taught once again how can secure depositor's deposit and stakeholder. Therefore, the main problem of the world's financial institutions is when the financial institute goes to unable to return the depositor fund, crisis raise in the economy not only the financial institutions because the

deposits of depositors lend to the manufacturing and service sectors both. NRB has decided to adopt capital adequacy framework based on Basel II document released by Basel Committee on Banking Supervision with a view of adopting the international best practices,. The complexity and sophistication of the Nepalese financial market didn't warrant advanced approaches like the IRB approach or the Standardized Approach.

Hence, Nepal Rastra Bank adopted the simplified standardized approach for credit risk, Basic Indicator Approach for Operational Risk and Net Open Exchange Model for the Market Risk. 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.

The first pillar aligns minimum capital requirements more closely with banks' actual underlying risks. In concept, the first pillar is similar to the existing capital framework, in that, it provides a measure of capital relative to risk. The second pillar- supervisory review process- allows supervisors to evaluate a bank's assessment of its own risks and determine whether that assessment seems reasonable. It is not enough for a bank or its supervisors to rely on the calculation of minimum capital under the first pillar. Supervisors should provide an extra set of eyes to verify that the bank understands its risk profile and is sufficiently capitalized against its risks. The third pillar- market discipline- ensures that the market provides yet another set of eyes. The third pillar is intended to strengthen incentives for prudent risk management. Greater transparency in banks' financial reporting should show marketplace participants to better reward well-managed banks and penalize poorly managed ones.

The coming year shall see a parallel run on the capital adequacy of the banks under both Basel I and Basel II. Banks are required to compute their capital adequacy requirements, based on this framework, on a quarterly basis. The so arrived result should be reported to their respective board of directives as well as to the Nepal Rastra Bank in the prescribed formats. Any shortfall in the capital adequacy requirement in accordance with this framework shall not constitute a default during this review period. However, the failure to submit the returns stipulated in this framework shall constitute non-compliance. The Accord Implementation Group (AIG) constituted to support the Basel

II implementation is continuously monitoring and providing support to this process. This group also recommends necessary changes to the framework based on the ground of the need and justification of such changes.

Here, the study will be focused on the following problems related to the subject matter:

1. How is the Capital Adequacy examined in NBL, RBB, and NABIL Bank?
2. What is overall financial conditions of these banks?
3. What are the factors affecting financial efficiency?
4. What further suggestions and recommendations can be made on the selected organizations?

1.5 Objectives of the Study

The main objective of this study is to find out how much capital adequacy is required in commercial banks as well as financial institutions to keep safe and sound financial system in economy. The main objectives of the study are as follows:

1. To examine the Capital Adequacy of NBL, RBB and NABIL.
2. To examine the efficiency and weakness (drawbacks) of capital adequacy ratio.
3. To analyze the implementation status of the directives given by NRB.
4. To evaluate capital adequacy of the commercial banks (Nepal Bank Limited, Rastriya Banijya Bank and NABIL Bank Limited).
5. Do these banks have adequate capital fund to safeguard the money of depositors?

1.6 Limitations of the Study

The study is limited of the capital fund and capital adequacy norms for commercial banks. It is not possible to take all commercial banks as sample therefore the study tries to make comparative analysis of the three banks only: Rastriya Banijya Bank, Nepal Bank Limited, and NABIL Bank Limited. Thus the result drawn from this study may or may not be applicable to other commercial banks of Nepal.

Balance sheets, profit and loss A/C and other financial statements are considered as basic source of data. Thus, the study is mainly based on the secondary data collected from various sources. However, some primary data has also been derived from the analysis of questionnaire prepared for the research study.

For the literature review, various newspapers, journals, unpublished thesis works nevertheless the internet have been referred. However, the literature review has been limited to few articles and research works due to unavailability of sufficient such matters even after very hard quest. Only the directives related to capital adequacy, loan classification and provisioning are selected for the study. The findings of this study are based on interviews and secondary data received from NRB and respected banks.

This study has following limitations:

- All details records for the study have been received as primary and secondary data relating only to respected banks.
- This study has limited scope, as only three commercial banks namely: Nepal Bank Limited, Rastriya Banijya Bank and NABIL Bank Limited, are taken for study.
- The study areas are mainly focused on regulatory system on capital adequacy of Nepal. Thus the study area will be very specific.
- The accuracy of the calculation is fully depended on the accuracy of data provided by the concerned organizations.

Though the study will be completed within very limited time in order to be considered in a predetermined academic period it will try its best to provide valid results as per its objectives and will try its best to make it useful for other who want to study on the same issue.

1.7 Organization of the Study

This study has been organized to five chapters as follows:

Chapter – I: Introduction

This chapter is organized as background, focus of the study, a brief glimpse of the banks under study, statement of the problem, objectives of the study, limitations of the study and organization of the study.

Chapter – II: Review of Literature

This chapter deals with the conceptual framework, Review of NRB Capital Adequacy Norms for Commercial Banks, Review of International Policies and Review of various

related books, journals, other publications and also unpublished master level dissertations.

Chapter- III: Research Methodology

In this chapter, several tools and techniques are employed for analysis. This chapter includes research design, sources and nature of data, data collection instruments, statistical tools that are used for the study. Its main scheme is to describe about the methods and procedures of the study.

Chapter – IV: Data Presentation and Analysis

This chapter is the heart of the study in which all the relevant collected data are analyzed and interpreted. This chapter consists of organizing, tabulating and assessing financial and statistical tools.

Chapter – V: Summary, Conclusions and Recommendations

This chapter contains summary and conclusion in accordance of analysis and interpretation of data. After that all necessary recommendations for the concerned authorities and institutions is made Bibliography and annexes used in the study has been attached end of the thesis.

CHAPTER - II
REVIEW OF LITERATURE

This chapter has focused on the review of literature relating to capital adequacy and its impact on commercial banks. This study is very much based on past knowledge which is the key to present knowledge. This chapter helps as adequate feedback to broaden the information and to base the inputs of study.

The Chapter Plan has been arranged as follows:

- Conceptual Framework
- Review of NRB Capital Adequacy Norms for Commercial Banks
- Review of NRB Directives
- Review of International Studies
- Review of Journals and Articles
- Review of related Thesis

2.1 Conceptual Frame Work

Banks are essential financial institutions. They are the principal source of credit that provides short term working capital finance. They contribute to the economy in different manner. They collect money from savers and invest in lucrative sectors. They make profit by paying less for savings than what they charge to the borrowers. Therefore, banks could play a key role in reducing poverty through income distribution and by producing income opportunities. Safe and sound banking system is of crucial importance for the financial stability and sustainable development. Nepal has a special characteristic of bank dominated financial sector. As the domestic capital and stock markets are in the initial stage of development, the banking sector largely dominates the entire financial sector.

The first conventional bank in Nepal was the Nepal Bank Limited, established in 1937 A.D. followed by Rastriya Banijya Bank in 1966 A.D. These two banks are the pioneers of the Nepalese banking industry. They have the largest network and they have their operations even in remote areas of the country. Rastriya Banijya Bank is fully owned by the Government while the Government has controlling stake in Nepal Bank Limited. As the financial market was barred for private investors till the mid 1980s, these two banks

were the only players in the banking industry. The economic liberalization policy adopted in the mid 1980s brought about a surge in the banking industry. A large number of banks were established and the number continues to grow even today.

2.1.1 Meaning of Commercial Banks

"Commercial bank is an organization chartered either by the Comptroller of the Currency and known as` a national bank or chartered by the state in which it will conduct the business of banking. A commercial bank generally specializes in demand deposits and commercial loans" *(Rosenburg; 1982: 4).*

"Commercial bank is a bank that concentrates on cash deposit and transfer services to the general public, often to be found on the High Street. It may be joint-venture bank or a private bank" *(Clark; 1999; 6).*

"Bank is an institution that deals in money and substitutes and provides other financial services. Banks accept deposits and make loans and derive a profit from the difference in the interest rates paid and charged, respectively. Some banks also have the power to create money. Commercial bank is a bank with the power to make loans that, at least in part, eventually become new demand deposits. Because a commercial bank is required to hold only a fraction of its deposits as reserves, it can use some of the money on deposit to extend loans. When a borrower receives a loan, his checking account is credited with the amount of the loan; total demand deposits are thus increased until the loan is repaid. As a group, then, commercial banks are able to expand or contract the money supply by creating new demand deposits" *(Encyclopedia Britannica, 2002).*

"Banking, the business of providing financial services to consumers and businesses"; The basic services a bank provides are checking accounts, which can be used like money to make payments and purchase goods and services; savings accounts and time deposits that can be used to save money for future use; loans that consumers and businesses can use to purchase goods and services; and basic cash management services such as check cashing and foreign currency exchange. Commercial banks specialize in loans to commercial and industrial businesses. Commercial banks are owned by private investors, called stockholders, or by companies called bank holding companies" *(Microsoft Encarta Reference Library, 2003).*

The main objective of a commercial bank is to earn profit by collecting the fund scattered around the general public, and mobilizing it. So, the main functions of commercial banks happen to be collecting deposits from general public and lending loans to various economic sectors that require financing. Commercial banks make profit by charging a bit higher interest rate in loans than they pay to depositors. So the main source of income of commercial banks is interest income.

Table: 2.1
List of Licensed Commercial Banks in Nepal (Mid July 2009)

S.N	Commercial Bank	Operation Date (A.D.)	Head office
1	Nepal Bank Limited (NBL)	1937/11/15	Kathmandu
2	Rastriya Banijya Bank (RBB)	1966/01/23	Kathmandu
3	NABIL Bank Limited (NABIL)	1984/07/16	Kathmandu
4	Nepal Investment Bank Limited (NIBL)	1986/02/27	Kathmandu
5	Standard Chartered Bank Limited (SCBN)	1987/01/30	Kathmandu
6	Himalayan Bank Limited (HBL)	1993/01/18	Kathmandu
7	Nepal SBI Bank Limited (NSBI)	1993/07/07	Kathmandu
8	Nepal Bangladesh Bank (NBBL)	1993/06/05	Kathmandu
9	Everest Bank Limited (EBL)	1994/10/18	Kathmandu
10	Bank of Kathmandu Limited (BOK)	1995/03/12	Kathmandu
11	Nepal Credit and Commercial Bank Ltd (NCCBL)	1996/10/14	Siddharthanagar
12	Lumbini Bank Limited (LBL)	1998/07/17	Narayangadh
13	Nepal Industrial & Commercial Bank Ltd (NIC)	1998/07/21	Biratnagar
14	Machhapuchhere Bank Limited (MPBL)	2001/02/03	Pokhara
15	Kumari Bank Limited (KBL)	2001/04/03	Kathmandu
16	Laxmi Bank Limited (LXBL)	2002/04/03	Birgunj
17	Siddhartha Bank Limited (SBL)	2002/12/24	Kathmandu
18	Agriculture Development Bank	2006/03/16	Kathmandu
19	Global Bank Limited	2007/01/02	Birgunj
20	Citizens Bank International Ltd	2007/06/21	Kathmandu
21	Prime Commercial Bank Ltd	2007/09/24	Kathmandu
22	Sun Rise Bank Ltd	2007/10/12	Kathmandu
23	Bank of Asia Nepal Ltd	2007/10/12	Kathmandu
24	Development Credit Bank Ltd	2001/01/23	Kathmandu
25	NMB Bank Ltd	1996/11/26	Kathmandu
26	Kist Merchant Banking & Finance Ltd	2003/02/21	Kamalpokhari, Ktm.

(Source: http://bfr.nrb.org.np/list_banks_n_non_banks_htm. Mid- July 2009)

2.1.2 Present Scenario of Commercial Banks in Nepal

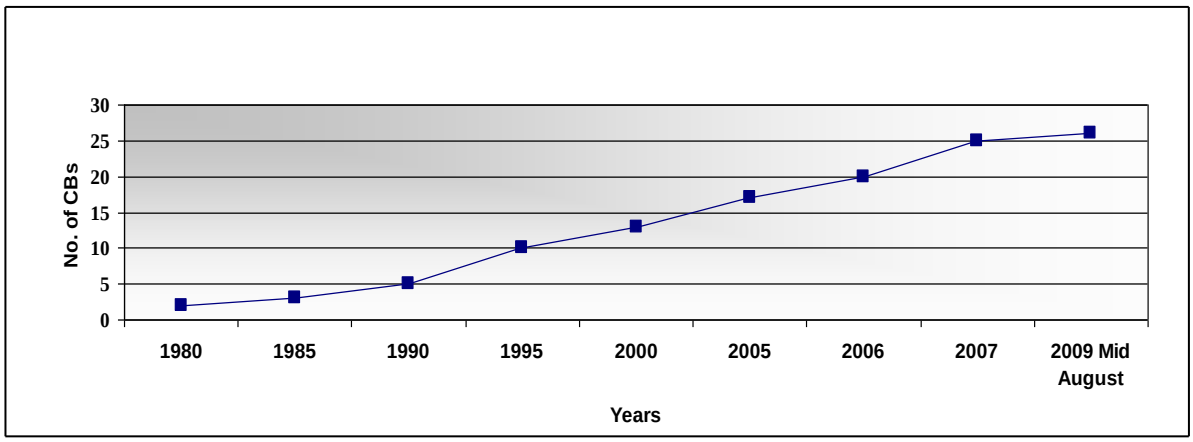
The banking industry is continuously evolving with introduction of new service delivery channels, new products and adoption of sophisticated technologies. The advancement in

the information technology and the conductive global environment has fastened the pace of evolution of this industry too. With the adoption of sophisticated technologies, the dimension of banking and financial services has widened a lot. As such, the banks are now equipped with new and innovative service delivery channels offering a number of products on the fore. The banks now have more opportunities, but these are undoubtedly attached with plenty of risks. In light of the rapidly changing scenario, the conventional supervisory tools, techniques and methodology that may have been adequate over a decade ago are unable to meet the supervisory objectives for today's larger, more complex banks.

As on Mid August 2009, the number of commercial banks is 26 based on the applications for establishment of new banks as well as for the up-gradation of other financial institution, the number is likely to grow in the near future as well.

Figure: 2.1

Number of Commercial Banks



2.1.3 Bank and Supervision

The major function of bank is to act as financial intermediaries. They act as a repository for the savings of those who spend less than their income, and as a source of borrowed Funds for those whose spending exceeds their income. In playing this role, banks facilitate real resource transfer amongst different groups of people, in accordance with their different needs and preference.

Banks also play an important role in making savings available to those with productive investment opportunities. Similarly, banks are an important source of liquidity for an economy. This is inherent in the payments services provided by the banking system, insofar as deposits held for transactions' purposes must be available for transfer on

demand. A unique feature of banks is that they have a low ratio of own' (shareholders') funds to borrowed funds (deposits). This inherent imbalance between 'own' funds and borrowed funds in a bank's overall funding mix presents some potential problems. Because bank's shareholders have only a small amount of their own funds at stake, there is an underlying incentive for banks to tend towards risk taking activities with the fund of depositors and outsiders. In fact, shareholders' losses are limited to the amount of their (relatively small) investment and banks' depositors bear any remaining loss. In short, banks shareholders, in the absence of supervisory requirements and constraints, would potentially have access to large profit opportunities, but with limited downside risk to themselves.

Bank failures can disrupt the flow of credit to local communities, interface with the operation of the payments system and reduce the money supply. These effects can be long- lasting. The past has shown that although the cost of supervision is high, the cot of poor supervision is even higher. The cost of bank failure to the society as a whole is higher than the private costs (the loss to the shareholders), which is compelling reason for supervising banks. Official supervisors have a great role in this regard mostly because banks' depositors are generally not well placed to monitor portfolio behavior of banks not to enforce compliance with the terms of the national covenant depositors have with their bank. Banking supervision is basically concerned with constraining the risks which banks can take in using other peoples' money; money which they have borrowed on the basis of representation that it will be repaid in full together with interest at the rate of contracted. These reasons call for an independent supervisory body to conduct a direct assessment of the overall condition of the banking institutions with regular review of banks' financial position, systems and controls, risk management practices and the compliance with the relevant regulatory requirements. Nepal Rastra Bank is the supervisory body of all the licensed institutions that carry baking transactions.

2.1.4 Current Issues in Banking Supervision

In the past, the business of bank supervision was focused on validating bank's transactions, particularly the value of loan portfolios, which have been historically the principal source of problems for banks. In the process, supervisors would go through the balance sheet, assuring themselves that a bank's assets and liabilities were essentially as stated and that its reserves and net worth were real. Traditional forms of supervision are important regulatory tools but have some severe limitations. In particular, they are labor

intensive and narrow in focus, as they look at many times. They were focused on detecting minor mistakes rather than overall financial soundness and risk management aspects of the banks. Traditional supervision provides a snapshot of an institution's condition at a point in time. It is transaction oriented and usually more labor intensive than risk-based supervision, thereby straining the scarce resources of most regulators.

Stability of the financial system has become the central challenge to bank regulators and supervisors throughout the world. Supervisory authorities all over the world are gradually moving towards adopting risk-based supervision. There is now a growing stress to adopt a more risk focused comprehensive approach, which is likely to contribute positively in the supervisory function. Through scrutiny of systems and procedures prevailing in supervised bank is an integral part of on-site inspection, there is scope for more focus on the risk profile of the banks. Supervisory bodies in the world are seeking more focused, responsive and tailored approach to supervision. Nepal Rastra Bank is committed to adopt the best Supervisory methods and practices and has been constantly endeavoring to enhance the sophistication and efficiency levels of its supervisory processes. In line with this philosophy, NRB has been continually updating the rules, regulations as well as the supervisory practices to deliver effective supervision.

A) Basel Core Principles

The core Principles for Effective Banking Supervision, promulgated by the Basel Committee on Banking Supervision, set out the minimum standards that are considered necessary for effective supervision. Core Principles have been used by countries as a benchmark for assessing the quality of their supervisory systems and identifying future works to be done to achieve a baseline of sound supervisory practices. Experience has shown that self-assessment of countries' compliance with the Core Principles have proven helpful for the authorities, in particular in identifying regulatory and supervisory shortcomings and setting priorities for addressing them. Several of the principles embrace risk-based supervision and encapsulate the concepts developed over the past twenty years. However, because the Core Principles is a brief document and covers a variety of topics, it cannot fully explain the key differences between risk-based supervision and traditional regulatory practices or provide a systematic explanation of

all the basic elements that would enable a regulatory agency to implement risk-based supervision.

Although supervisory practices and processes are always evolving and improving over time, it is helpful to subject supervisory arrangements to scrutiny against internationally accepted benchmarks, and to consider where improvements can be made. To be effective, any such assessment must be undertaken. It is too easy for supervisors to assert critically that existing arrangements represent best practice when closer analysis would reveal otherwise.

Realizing the importance of the core principles, NRB with technical support from IMF has completed a self assessment which has finalized after various rounds of discussions. The assessment highlighted area which needs improvement and in other to correct those deficiencies an action plan has been prepared. Nepal Rastra Bank has already taken initiatives to address those deficiencies in accordance with the action plan.

B) Basel II, Concept and its Implication in Nepal

With a view of adopting the international best practices, NRB has decided to adopt capital adequacy framework based on Basel II document released by Basel Committee on Banking Supervision. The complexity and sophistication of the Nepalese financial market didn't warrant advanced approaches like the IRB Approach or the Standardized Approach. Hence, Nepal Rastra Bank adopted the simplified standardized Approach for credit risk, Basic Indicator Approach for Operational Risk and Net Open Exchange Model for the Market Risk. 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.

The first pillar aligns minimum capital requirements more closely with banks' actual underlying risks. In concept, the first pillar is similar to the existing capital framework, in that, it provides a measure of capital relative to risk. The second pillar –supervisory review process- allows supervisors to evaluate a bank's assessment of its own risks and determine whether that assessment seems reasonable. It is not enough for a bank or its supervisors to rely on the calculation of minimum capital under the first pillar.

Supervisors should provide extra set of eyes to verify that the bank understands its risk profile and is sufficiently capitalized against its risks. The third pillar-market discipline-ensures that the market provides yet another set of eyes. The third pillar is intended to strengthen incentives for prudent risk management. Greater transparency in banks' financial reporting should allow marketplace participants to better reward well-managed banks and penalize poorly managed ones.

The coming year shall be a parallel run on the capital adequacy of the banks under both Basel I and Basel II. Banks are required to compute their capital adequacy requirements, based on these frameworks, on a quarterly basis. The so arrived result should be reported their respective board of directors as well as the Nepal Rastra Bank in the prescribed formats. Any shortfall in the capital adequacy requirement in accordance with this framework shall not constitute a default during this rewire period. However, the failure to submit the returns stipulated in this framework shall constitute non-compliance.

The Accord Implementation Group (AIG) constituted to support the Basel II implementation is continuously monitoring and providing support to this process. This group also recommends necessary changes to the framework base on the ground of the need and justification of such changes.

C. Prompt Corrective Action (PCA)

Basel core principle no. 23 (Corrective and remedial powers of supervisions) states supervisors must have at their disposal an adequate range of supervisory tools to bring about timely corrective actions, if the example, a bank is not complying with laws, regulations or supervisory decisions, or is engaged in unsafe or unsound practices, or when the interest of depositors are otherwise threatened. These tools include the ability to require a bank to take prompt remedial action and to impose penalties.

Over the past year, several countries around the world have adopted a system of prudential prompt corrective action (PCA) binding capital adequacy standards and the ability to take substantial actions against banks that failed to meet the standards. On firs appearance, the adoption of PCA in the US, UK, European Union, Hong Kong, Canada,

Mexico, Korea, Indonesia, India, Bangladesh, Malaysia and Brazil appear to have been extremely successful. The PCA approach of supervisor realizes that early steps in preventing banks are always better than caring troubled bank. The supervisor and regulators in the last developed countries are also being encouraged to adopt PCA by policy analysts who explicitly call for its adoption. However, some preconditions needed for thee adoption of an effective PCA include conceptual element such as prudential supervisory focus on minimizing public deposit losses and mandating supervisory action as capital declines. These preconditions also include institutional aspect such as greater supervisory independence and authority, more effective resolution mechanisms, better methods of measuring capital, and enhancing supervisory capabilities.

Nepal Rastra Bank has planned to adopt PCA framework through Monetary Policy for FY 2007/2008 that states NRB will take actions immediately to those banks whose capital adequacy ratio falls short of the stipulated limit. The triggers and stipulated action are applicable uniformly to all banks including those within the scope of this framework. Actions range from applying restrictions on branch expansion and dividend payments; loan disbursements and deposit mobilization; increase in salary and allowances to execute actions available under Section 86 of Nepal Rastra Bank on the basis of the level of shortfalls from the regulatory capital adequacy ratios as per clause 42 of the Banks and financial Institutions Act 2006. This framework is expected to encourage banks to observe the minimum capital adequacy at all the times.

2.1.5 Overview: Capital and Capital Adequacy

"Capital is a stock of resources that may be employed in the production of goods and services and the price paid for the use of credit or money, respectively" *(Microsoft Encarta Reference Library, 2003).*

"Capital in relation with banking is a long-term debt plus owners' equity" *(Rosenburg; 1982: 8).*

The efficient functioning of markets requires participants to have confidence in each other's stability and ability to transact business. Capital-rules help foster this confidence because they require each member of the financial community to have, among other things, adequate capital. This capital must be sufficient to protect a financial organization’s depositors and

counterparties from the risks of the institution's on-balance sheet and off-balance sheet risks. Top of the list are credit and market risks; not surprisingly, banks are required to set aside capital to cover these two main risks. Capital standards should be designed to allow a firm to absorb its loses, and in the worst case, to allow a firm to wind down its business without loss to consumers, counterparties and without disrupting the orderly functioning of financial markets.

Minimum capital fund standards are thus a vital tool to reducing systematic risk. They also play a central role in how regulators supervise financial institutions. But capital requirements have so far tended to be simple mechanical rules rather than applications of sophisticated risk-adjusted models. Such capital standard is widely known as capital adequacy.

"Banks capital is common stock plus surplus plus undivided profits plus reserves for contingencies and other capital reserves. In addition since a bank's loan-loss reserves also serve as a buffer for absorbing losses, a broader definition of bank capital includes this account" *(Patheja; 1994: 11).*

"The general public is interested in the higher profitability and safety of the funds of a bank, because the public expects the shareholders to assume all the risks. Lower profitability of a bank fills the faith of the prospective depositors and all their incentive for investing in the various deposit schemes" *(Verma, & Malhotra; 1993:13).*

The Basel Committee sets a standard for all the banking norms, which will be accepted by central banks of all big industrialist countries. Regarding the capital funds the committee has issued the Basel Capital Accord. The first Basel Capital Accord was issued in 1988 and was implemented by 1992. The committee had issued New Basel Capital Accord which should have been implemented by 2006 to overcome the drawbacks of the present capital accord. Central banks of developing and underdeveloped countries follow these standards. NRB also follow these standards and accordingly sets standard for commercial banks in Nepal.

According to the Unified Directive issued by NRB, the bank capital has been categorized into two parts: Core Capital and Supplementary Capital.

Definition of Capital

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 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 markets 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 defined in two ties in a way which will have the effect of requiring at least 50% of a bank's capital base to consist of s 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 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 for regulatory purposes shall be considered as zero and hence the capital fund, in such cases, shall be equal to the core capital.

2.1.5.1 Elements of Tier 1 Capital

a. Paid up Equity Capital
b. Irredeemable non –cumulative preference shares which are fully paid-up and with the capacity to absorb unexpected losses. These instruments should not contain

any clauses, which permit redemption by the holder or issuer upon fulfillment of certain condition. Banks should obtain prior approval of NRB for this kind of instruments to qualify as a component of core capital.

c. Share Premium
d. Proposed Bonus Equity Share
e. Statutory General Reserve.
f. Retained Earning available for distribution to shareholders.
g. Un-audited current year cumulative profit, after all provisions including staff bonus and taxes. Where provisions are not made, this amount shall not qualify as Tier 1 capital.
h. Capital Redemption Reserve created in lieu of redeemable instruments.
i. Capital Adjustment reserves created in respect of increasing the capital base of the bank.
j. Divided Equalization Reserves.
k. Other free reserves
l. Any other type of reserves notified by the NRB from time to time for inclusion in Tier 1 capital

2.1.5.2 Elements of Tier 2 Capital

a. Cumulative and/or redeemable preference shares with maturity of five years and above.
b. Subordinated term debt fully paid up with a maturity of more than 5 years; unsecured and subordinated to the claim of other creditors, free of restrictive clauses and not redeemable before maturity. Since, subordinated term debt is not normally available to participate in the losses; the amount eligible for inclusion in the capital adequacy calculations is limited to 50% of core capital. Moreover, to reflect the diminishing value of these instruments as a continuing source of strength, a cumulative discount (amortization) factor of 20% per annum shall be applied for capital adequacy computations, during the last 5 years to maturity. The banks should obtain written approval of NRB for including any subordinating debt instruments (like Debenture/Bonds) in supplementary (Tier-2) capital.
c. Hybrid capital instruments are those instruments which combine certain characteristics of debt and certain characteristics of equity. Each such instrument

has a particular feature, which can be considered to affect its quality as capital. Where these instruments have close similarities to equity, in particulars when they are able to support losses on an ongoing basis without triggering liquidation, they may be included in Tier 2 capital.

d. General loss provision limited to a maximum of 1.25% of total Risk Weighted Exposures. The loan loss provision in respect of the rescheduled/ restructured loans and loss provision in respect of Non Performing Assets shall not be included under this category. However, software expenditure or software development expenditure, research and development expenditure, patents, copyrights, trademarks and lease hold developments booked as deferred revenue expenditure are subject to 100% risk weight and shall not be deducted from Tire 1 capital. Investment in shares of Rural Development Banks and other institutions, where the waiver has been explicitly provided by NRB are subject to risk weight of 100% and shall not be deducted from Tier 1 capital. Provisions created in excess of the regulatory requirement or provisions which is not attributable to identifiable losses in any specific loans shall be allowed to be included in the general loan loss provision and shall be eligible for Tier II capital subject to a maximum of 1.25% of total risk weighted exposures. Banks shall be required disclose the cases where additional provisions have been made.
e. Investment adjustment reserve created as a cushion for cushion for adverse price movements in bank's investment.
f. Revaluation reserves often serve as a cushion against unexpected losses but may not be fully available to absorb unexpected losses due to the subsequent deterioration in market values and tax consequences of revaluation. Therefore, revaluation reserve will be eligible up to 50% for treatment as Tier 2 capital and limited to a maximum of 2% the total Tier 2 capital subject to the condition that the reasonableness of the revalued amount is duly certified by the internal auditor of the bank.
g. Exchange equalization reserves created by banks as a cushion for unexpected losses arising out of adverse movements in foreign currencies.
h. Other reserves
i. Any other type of reserve created by NRB from the time to time for inclusion in Tier 2 capital.

2.1.5.3 Deductions from Core (Tier 1) Capital

Banks shall be required to deduct the following from the Tier 1 capital for capital adequacy purposes. The claims that have been deducted from core capital shall be exempt from risk weights for the measurements of credit risks.

a. Losses suffered in the current period as well as those brought forward from previous periods.
b. Book value of goodwill.
c. Fictitious assets to the extent not written off. (E.g. VRS expenses, preliminary expense, share issue expenses, deferred revenue expenditure, etc.)
d. Investments in equity of financial institution licensed by Nepal Rastra Bank.
e. All Investments in equity of institutions with financial interest.
f. Investments in equity of institutions in excess of the prescribed limits.
g. Investments arising out of underwriting commitments that have not been disposed within a year from the date of commitment.
h. Reciprocal crossholdings of bank capital artificially designed to inflate the capital position of the bank.
i. Any other items as stipulated by Nepal Rastra Bank, from time to time.

2.1.5.4 Capital Funds

The capital fund is the summation of Tier 1 and Tier 2 capital. The sum total of the different components of the tier 2 capitals will be limited to the sum total of the various components of the tier 1 capital net of deductions. In case the Tier 1 capital is negative, Tier2 capital should be considered to be "Nil" for regulatory capital adequacy purposes and hence, in such a situation, the capital fund shall be equal to the Tier 1 capital.

2.1.5.5 Minimum Capital Requirements

Unless a higher minimum ratio has been set by Nepal Rastra Bank for an individual bank through a review process, every bank shall maintain at all times, the capital requirement set out below:

a. Tier 1(core) capital of not less than 6 percent of total risk weighted exposures.
b. A total capital fund of not less than 10 percent of its total risk weighted exposures.

The Capital Adequacy Ratio (CAR) is calculated by dividing eligible regulatory capital by total risk weighted exposure. The total risk weighted exposure shall comprise of risk weights calculated in respect of bank's credit, operational and markets risks.

2.2 Review of NRB Capital Adequacy Norms for Commercial Banks

With a view of adopting the international best practices, NRB has already expressed its intention to adopt the Basel I framework, albeit in a simplified form. In line with the international development and through discussion with the stakeholders, evaluation and assessment of impact studies at various phases, this framework has been drafted. 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 disclosures requirements.

"The current Basel I capital framework adopted over around two decades ago, has served us well. ….According to the introduction of the new Accord, issued in June 2004: "the objectives were to maintain the aggregate level of minimum capital requirements, providing incentives to adopt the more advanced risk sensitive approaches of the revised framework" *(Rayamajhi; 2006: 36).*

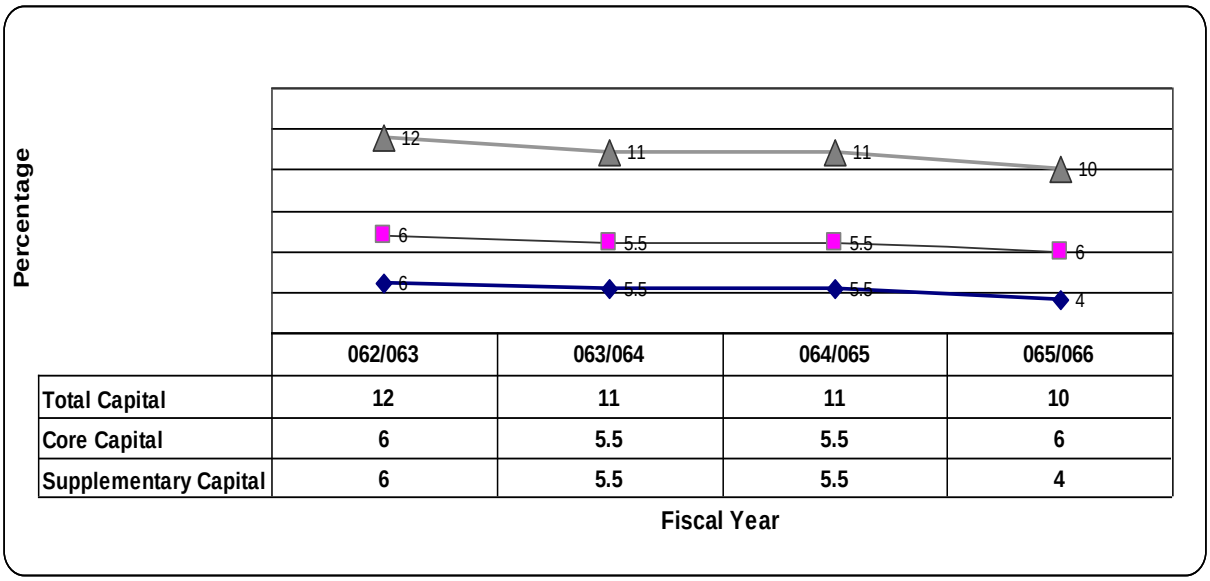
The new capital framework attempts to achieve these objectives with three mutual reinforcing pillars. The first pillar aligns minimum capital requirements more closely with banks' actual underlying risk. At the outset the first pillar is similar to the existing capital framework that provides a measure of capital relative to risk. The purely new are the second and third pillar. The second pillar- supervisory review- allows – supervisors to evaluate a bank's assessment of its own risks and determine whether that assessment seems reasonable. It is not enough for a bank or its supervisors to rely on the calculation of minimum under the first pillar. Supervisors should provide an extra set of eyes to verify that the bank understands its risk profile and is sufficiently capitalized against its risks.

The third pillar- market discipline- ensures that the market provides yet another set of eyes. The pillar is intended to strengthen incentives for prudent risk management. Greater transparency in banks' financial reporting should allows market participants to reward well- managed banks and penalize poorly managed ones…in a nutshell; I think that new capital framework represents a significant step towards achieving a more comprehensive and risk sensitive supervisory approach.

Basel II is about much more than just selling better quantitative minimum capital requirements. It is about establishing incentive based approaches to risk ad capital adequacy management, within a comprehensive framework of three mutually supporting pillars. The contribution of better risk management, a stronger capital structure and improved transparency standards in the banking system can significantly improve financial stability.

Figure: 2.2

Capital Adequacy Ratio for Commercial Banks



Nepal Rastra Bank, Annual Bank Supervision Report, (2001-2002): Strong capital base is the prerequisite for the safety and soundness of any bank, since; any losses arising out of the unexpected risk have to be borne by the bank out of its own capital. It is for this reason, Basel Capital Accord, 1988 stresses on the creation and maintenance of the strong capital base in proportion to the Risk Weighted Assets of the banks. At present,

Bank in Nepal are required to maintain minimum risk weighted capital adequacy ratio of 9% which is to be increased to 12% from the beginning of FY2004-05

In line with the Basel capital Accord, capital is defined in two tiers, collectively known as capital fund. Capital fund of permanent or core element called 'core capital' and less permanent element called 'supplementary capital'. Banks at present are required to maintain core capital and total capital fund ratios of 4.5% and 9% respectively in proportion to their Risk Weighted assets.

Core capital of the commercial banks as a whole at end of FY201-02 was negative at Rs.18435 million due to heavy accumulated losses. During the given financial year, public sector banks of the country have failed to meet the capital adequacy requirements due to huge amount of accumulated losses of these banks resulting in the negative core capital to the tune of Rs.25392 million, which was Rs.17128 million (negative) during the previous year.

Private sector bank of the country complied with the minimum risk adjusted capital requirements of 9% except for Nepal Credit and Commerce Bank Limited, which had negative core capital of Rs.150 million. The over all risk adjusted capital ratio maintained by these banks stood at 13.25% up from 11.8% during the previous year.

Table: 2.2

Capital Fund Table

(NPR in million)

	Public		**Private**		**Total**	
	2000-01	2001-02	2000-01	2001-02	2000-01	2001-02
Core Capital	-17128	-25392	6111	6957	-11017	-18435
Supplementary Capital	0	0	2105	2614	2105	2614
Total Capital Fund	-17128	-25392	8216	9571	-8912	-15821

The aggregate capital base (core capital as well supplementary capital) of the commercial banks as a whole as on the end of FY 2001-02 was negative at Rs.15821 million against Rs.8912 million (negative) of previous year registering an increase of 77.52% in the total negative core capital.

Capital base of private sector banks amounted to Rs.9571 million with the increase of 16.49% from the previous year. Core capital of these banks amounted to Rs.6957 million with an increase of 13.84% from the previous year.
Supplementary capital of the banks on the same date was Rs.2614 million registering growth of 24.18% from the previous year.

However core capital of two public sector banks (RBB& NBL) was negative, at Rs.25392 million due to heavy accumulated losses of these banks, registering increase in negative capital by Rs.8264 million (48.25%) from the previous year. such huge negative balance in the core capital of these public sector banks has consumed the core capital of commercial banks as a whole as a result of which core capital of commercial banks as a whole is also negative.

Nepal Rastra Bank, Annual Bank Supervision Report, (2002-2003): The aggregate as well as public sector and private sector banks capital adequacy deteriorated as accumulated loss of the public sector banks highly increased and more private sector commercial banks has total capital fund below the statutory minimum of 10% of risk weighted assets. However, private sector banks average capital adequacy ratio of 11.95% is marginally above the statutory requirement. Negative total capital found of Rs.31448 million relating to two public sector banks converted the total capital base of the commercial bank in to negative (-11.74%). Table given below clearly shows the fact.

Table: 2.3

Capital Fund to Risk Weighted Assets Ratio

Year	2000-01	2001-02	2002-03
Public Sector	-2.5%	-24.55%	-37.83%
Private Sector	15.09%	13.82%	11.95%
Commercial Banks	4.00%	-7.25%	-11.74%

Total capital fund was decreased by 80% compared to previous year's negative capital fund base of Rs.-11,380 million. Rate of decrease in capital fund during year 2001-02 was 280%. Significant part of this decline was because of huge loss incurred by two public sector banks during the relevant period. Decline in the capital adequacy ratio of

public sector banks was due to higher growth in exposures in high risk category. Which resulted in growth of risk weighted assets by 29.32%, without commensurate growth in the total capital fund.

Nepal Rastra Bank, Annual Bank Supervision Report, (2003-2004): Aggregate capital fund as well as that part of public sector banks remained negative even though there was some improvement in capital adequacy. Though, average capital adequacy ratio of 11.62%, private sector banks is marginally above the minimum statutory requirement, more number of banks failed to meet minimum requirements during the year. Negative total capital fund of Rs. 29816 million relating to two public sector banks converted the total capital base of the commercial bank into negative 8.92 Percent. Table given below clearly shows the fact.

Table: 2.4

Capital Fund to Risk Weighted Assets Ratio

Year	2001-02	2002-03	2003-04
Public Sector	-24.55%	-37.83%	-35.01%
Private Sector	13.82%	11.95%	11.62%
Commercial Banks	7.25%	-11.74%	-8.92%

Total capital fund was increased by 15.90% compared to previous years' capital fund base of negative Rs. 20510 million due to improvement in performance of the public sector banks during the year. Rate of decreases in capital fund during year 2002-03 was 80.22%. Decline in the capital adequacy ratio of the private sector banks was due to higher growth in exposures in high- risk category, which resulted in growth in risk weighted assets by 18.21%, without commensurate growth in the total capital fund.

In addition to the capital adequacy requirement NRB has directed all commercial banks to increase paid up capital up to minimum of 1 billion by mid July 2009 as a part of strengthening the capital base.

Nepal Rastra Bank, Annual Bank Supervision Report, (2005): the consolidated capital of the Nepalese banking industry has shown positive trend during the review period. The capital has improved by Rs.6.34 billion in 2004-05. However, due to the large volume of negative reserves of the public banks, the capital base is still a long way from being satisfactory.

Table: 2.5

Capital of the Banking Industry

(Rs. in Billions)

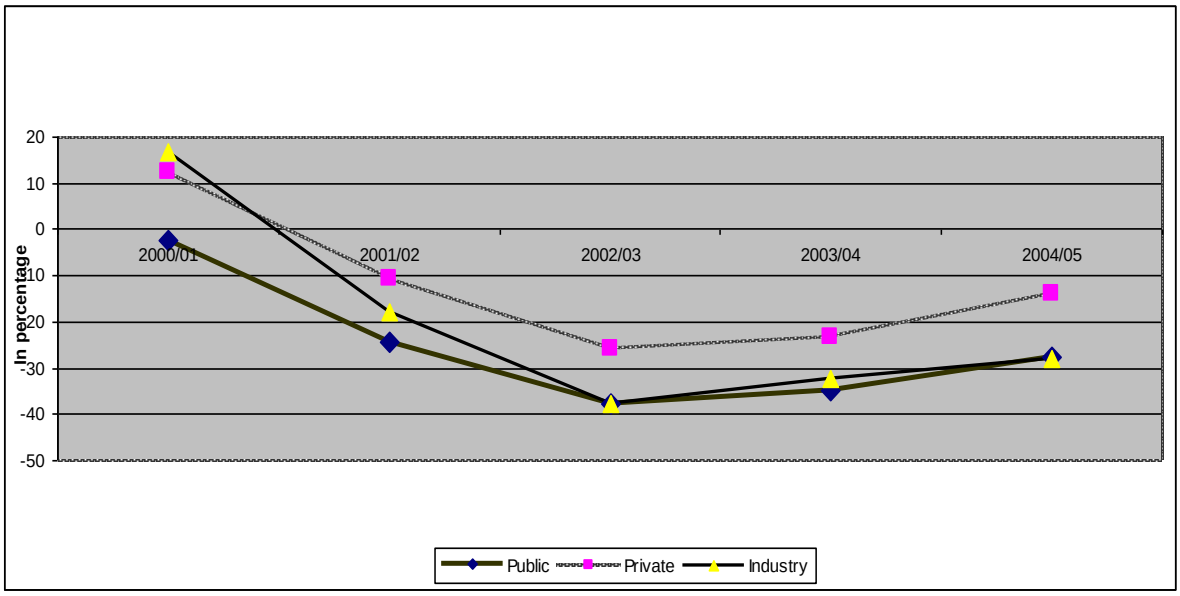
Banks/Year	2004-05	Change %	2003-04	Change %	2002-03
Private	13.88	32.70	10.46	16.61	8.97
Public	-27.80	-9.51	-30.7	-5.68	-32.57
Industry	-13.92	-31.29	-20.262	-14.15	-23.60

The capital adequacy position of the private banks is satisfactory. However, because of continuous large increase in the risk assets of these banks, their capital adequacy ratio is declining.

It is the public banks that are responsible for the ruining the capital base of the entire banking industry. The public banks due to their inherent problems had suffered massive losses in the past, which are reflected in their negative reserves. Although, these banks have started to improve their financial condition, it is far cry from an acceptable standard. The public banks, due to their size, have a relatively significant degree of sensitivity to the entire industry's performance and their improvement has been echoed in the improvement of the entire industry's capital.

Figure: 2.2

Movements in the Capital Adequacy Ratio



The review of the individual banks capital adequacy, as on mid July 2005, reflects that most of the banks have complied with the statuary capital adequacy ratio of 11%. The banks with non-compliance are Rastriya Banijya Bank (-34.12%), Nepal Bank Ltd. (-19.54%), Nepal Bangladesh Bank Ltd. (2.38%), Nepal Credit & Commerce Bank Ltd. (4.20%), Lumbini Bank Ltd. (6.35%) and Nepal SBI Bank Ltd. (9.47%).

The capital of the Nepalese banking industry has depicted a favorable trend during 2004/05. There are various reasons for this improvement. The banks, during the period, on an average have performed well and some of them have raised capital from the market, which improved the overall capital position of the industry. All banks, except for three private banks were able to post handsome profits. Some banks wee able to distribute cash dividends and bonus shares to its shareholders. At the same time, some banks raised equity capital through initial public offering during the year.

Nepal Rastra Bank, Annual Bank Supervision Report, (2006): The consolidated capital of the Nepalese baking industry has shown positive trend during the review period. The capital has improved by Rs. 2.36 billion in 2005/06. However, due to the large volume of negative reserves of the public banks and three private banks, the capital base is still a long way from being satisfactory.

Table: 2.6

Total Capital Fund of the Commercial Banks

(Rs. in Billions)

Banks/Year	2003/04	Change %	2004/05	Change %	2005/06
Private	10.46	70	13.88	-2.36	13.55
Public	-30.72	9.51	-27.8	9.65	-25.12
Industry	-20.26	-1.29	-13.92	16.92	-11.56

The capital adequacy position of the private bank is not satisfactory due to some problematic banks. However, because of continuous large increase in the risk assets of these banks, their capital adequacy ratio is declining. It is the public banks and three private banks that are responsible for the ruining the capital base of the entire banking industry. The public banks due too their inherent problems has suffered massive losses in the past and three private banks due to increase in their non- performing loans has

suffered massive losses from last year, which are reflected in their negative reserves. Although, the public banks have started to improve their financial condition, it is a far cry from an acceptable standard. The public banks, due to their size, have a relatively significant degree of sensitivity to the entire industry's performance and their improvement has been echoed in the improvement of the entire industry's capital.

The review of the individual banks capital adequacy, as on Mid July 2006, reflects the most of the banks have complied with the statutory capital adequacy ratio of 11 percent. The banks with non-compliance are Rastriya Banijya Bank (-56.40%), Nepal Bank Ltd. (-40.44%), Nepal Bangladesh Bank Ltd. (-13.23%), Nepal Credit & Commerce Bank Ltd. (-3.46%), Lumbini Bank Ltd. (-13.93%) and Agriculture Development Bank (-2.07%).

The capital of the Nepalese banking industry has depicted a favorable trend during 2005/06. Three are various reasons for this improvement. The banks, during the period, on an average have performed well and some of them have raised capital from the market, which improved the overall capital position of the industry. All banks, except for three private banks were able to post handsome profits. Some banks were able to distribute cash dividends and bonus shares to its shareholders. At the same time, some banks raised finance from the market through issue of right shares during the year except some problematic banks.

Nepal Rastra Bank, Annual Bank Supervision Report, (2007): The consolidated capital of the Nepalese banking industry has shown positive trend during the review period. The capital has improved by Rs.8.10 billion in 2006/07. However, due to the large volume of negative reserves of the public banks and three private banks, the capital base is still negative and not satisfactory.

Table: 2.7

Total Capital Fund of the Commercial Banks

(Rs. in Billions)

Banks/Year	2003/04	Change %	2004/05	Change %	2005/06	Change %	2006/07
Private	10.46	70	13.88	-2.36	13.55	25.23	16.97
Public	-30.72	9.51	-27.8	9.65	-25.12	-18.67	20.43
Industry	-20.26	-1.29	-13.92	16.92	-11.56	-70.06	-3.46

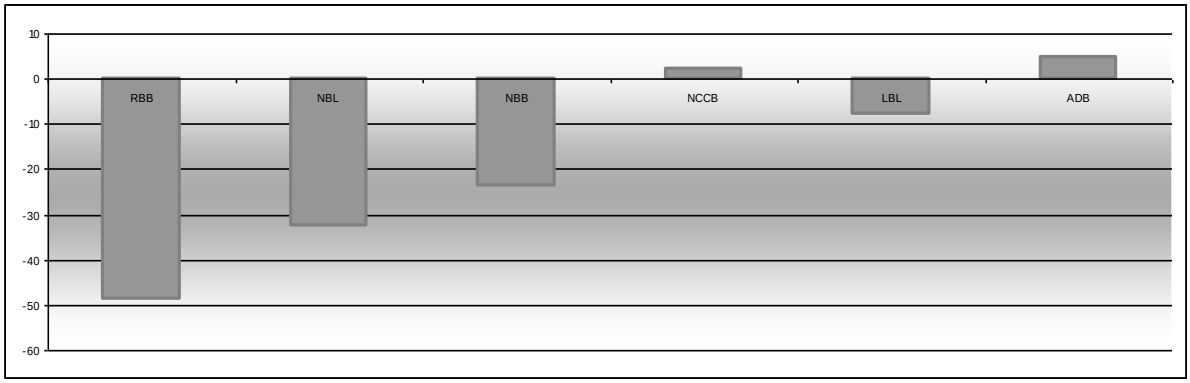
The capital adequacy position of the private banks, public banks and the entire industries is not satisfactory mainly due to problematic banks.

It is the negative capital base of public banks and three private banks that has resulted on the negative capital base of the entire banking industry. The public banks due to their inherent problem have suffered massive losses in the past and three private banks due to the increase their non-performing loans has suffered massive losses from last year, which has resulted in their negative reserves. Although, the public banks have started to improve their financial condition, it is far from an acceptable standard. The public banks, due to their size, have a relatively significant degree of sensitivity to the entire industry's performance and their improvement has been echoed in the improvement of the entire industry's capital.

The review of the individual banks capital adequacy as on Mid July 2007 reflect that most of the banks have complied with the statutory capital adequacy ratio of 11 percent. The banks with non-compliance are Rastriya Banijya Bank (-48.45%), Nepal Bank Ltd. (-32.46%), Nepal Bangladesh Bank Ltd. (23.55%), Nepal Credit & Commerce Bank Ltd. (2.35%), Lumbini Bank Ltd. (-7.80%) and Agriculture Development Bank (4.84%).

Figure: 2.3

Capital Adequacies of Commercial Banks (Mid July 2007)



The capital of the Nepalese banking industry has depicted a favorable trend during 2006/07. There are various reasons for this improvement. The banks, during the period, on an average have performed well and some of them have raised capital from the market, which improved the overall capital position of the industry. All banks, except for four private banks were able to post handsome profits during the year in review.

2.3 Review of NRB Directives

NRB issues directives from time to time to enhance the strength of commercial banks. The tools described in the directives main objectives are to control and monitor the financial institutions of the country. NRB has been issuing directives into four different parts i.e., directives relating to banking regulation and prudential norms, credit information bureau (CIB), foreign exchange and list of forms, formats and tables. In present situation, NRB issues directives regulatory and put with new directives.

Directives relating to the banking regulation and prudential norms comprise sixteen directives, which are as follows (Unified Directives 2062, NRB):

Directive No. 1	The provision of minimum capital fund to be maintained by the commercial bank;
Directive No.2	The provision of loan loss provisioning on the credit;
Directive No.3	The provision relating to single borrower limit;

Directive No. 4	The provision of accounting and the structure of financial statement to be followed by the commercial banks;
Directive No.5	The provision of reducing risk on activities of the commercial banks.
Directive No.6	The provision of institutional good governance to be followed by commercial banks;
Directive No. 7	The provision of implementation schedule of regulatory directives issued in connection with inspection and supervision of the commercial banks.
Directive No. 8	The provision of investment on shares and securities;
Directive No. 9	The provision of submission of statistical data to the Nepal Rastra Bank, Banking management division and inspection and supervision division;
Directive No. 10	The provision of sale and re-registration of foundation shares of ` commercial banks;
Directive No. 11	The provision of Consortium Financing Loan;
Directive No. 12	The provision of Loan Information and black list;
Directive No. 13	The provision of compulsory Inventory;
Directive No. 14	The provision of Branch Office;
Directive No. 15	The provision of Interest rate;
Directive No. 16	The provision of financial source collection;

Among sixteen directives this study is only limited to number one directive that is provision of capital adequacy ratio.

2.4 Review of International Studies

Basel Committee on the Banking Supervision, Report for the G7 summit on the activities of the Basel Committee, June 2006: This report, prepared for the group of seven (G7) Finance Ministers and Central Bank Governors, discusses the Committee's main efforts over the past year. It summarizes the committee's contribution to the promotion of stability in the global banking system through its efforts to provide guidance on key banking supervisory issues and foster cooperation among banking supervisors.

The publication in June 2004 of the Basel II framework represented the outcome of a multi-year effort by the Committee to bring capital adequacy regulations, which are a key underpinning of the safety and soundness of the global banking system, up to date with current business realities and risk management practices. Currently, the committee is actively promoting cooperation among supervisors with the goal of fostering greater convergence in supervisory practices in implementing the new rules.

The Basel Committee reviewed and confirmed the calibrations of the Basel II Framework in May 2006. The QIS results for the Basel Committee member countries show that minimum required capital under the Basel II Framework would decrease relative to the current Accord. For large, internationally active banks, minimum required capital would decrease by 6.8%, based on the results for the approach that participating banks will likely adopt after implementation. Taking into account the benign economic condition prevailing in the final quarter of 2005 and the remaining uncertainties in the data, the Committee agreed that no adjustments of the scaling factor to credit risk-weighted assets would be necessary at this stage. The Committee intends to publish a detailed report on the outcome of QIS 5 in G10 and non G10 countries in 2006.

Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards, A Revised Framework Comprehensive Version, June 2006, the first pillar- minimum capital requirements needs credit, market and operational risk. The capital ratio is calculated using the definition of regulatory capital and risk weighted assets. The capital ratio is calculated using the definition of regulatory capital and risk weighted assets. The total capital ratio must be no lower than 8%. Tier 2 capital is limited to 100%of Tie 1 capital.
The second pillar- Supervisory Review Process discusses the key principles of supervisory review, risk management guidance and supervisory transparency and accountability produced by the Committee with respect to banking risks, including guidance relating to, among other things, the treatment of interest rate risk in the banking boo, credit risk (stress testing, definition of default, residual risk, and credit concentration risk), operational risk, enhanced cross- border communication and cooperation and cooperation and securitization. The third- pillar Disclosure requirements, the Committee believes that the rational for pillar 3 is sufficiently strong

to warrant the introduction of disclosure requirements for banks using the framework. Supervisors have an array of measures that they can use to require banks to make such disclosures. Some of these disclosures will be qualifying criteria for the use of particular methodologies or the recognition of particular instruments and transactions.

2.5 Review of Journal and Articles

Blum (1990) has concluded in the article "*Do Capital Adequacy Requirements Reduce Risks in Banking*" that capital adequacy rules may increase a bank's riskiness. The writer further included that in addition to the standard negative effect of rents on risk attitudes of banks a further inter temporal effect has to be considered. The intuition behind the result is that under binding capital requirements an additional unit of equity tomorrow is more valuable to a bank. If raising equity is excessively costly, the only possibility to increase equity tomorrow is to increase risk today.

Lamsal (2001) in the article "*NRB Directives: Bankers Plea for Lighter Structures*" has mentioned that the commercial banks with seven directives issued in two installments asking banks to start complying with the new structures by mid-July 2001 or face grave consequences. NRB claims that these are based on the internationally accepted banking norms of Basel committee. Lamsal has opined that banks are expected to be disparate to meet the targets of capital adequacy norms since the consequences the banks have to face in case of non-compliance are very strict. And for this purpose they will have to issue additional shares, which is not possible for them in the short-run. Or they do not prefer to go for additional share issue simply because they will also have to pay the same dividend as the past to the holders of shares so issued. This becomes the more difficult as the business is not going to expand commensurately. The difficulty is understandable now when every banker is complaining of the lack of new investment projects.

Shah, P.B. (2005) concluded in the article "*Financial Sector Reform Program: Issues and Challenges*" that being the central bank of the nation, Nepal Rastra Bank has to be active by playing important role for monetary and financial stability. Central bank should always be eager to achieve the public faith towards bank and financial institutions enabling them being disciplined, well organized, healthy and competent by providing

effective regulation and supervision to appropriate utilization and mobilization of financial resources by increasing financial saving rate by raising financial stability. Also, central bank should always be willing to safeguard the interest of depositors and investors to accomplish the financial stability. Constant financial stability leads to the accomplishment of monetary stability. As the tools for monetary policy are applied through financial sector, the efficiency of monetary policy depends on effectiveness of financial sector. Balanced growth of financial sector helps monetizing of economy. Various drawbacks; like, managerial ineffectiveness, organizational difficulty, contrary financial situation; make the long-term stability of financial sector suspicious. Failure of any one financial institution leads the destructive impact to whole financial sector and such impact will be spread to other countries from the countries where capital accounts are fully convertible. So, the concept of financial system of the country should be boosting and healthy for achieving higher economic growth by steadying macro economic stability has been globally supported. The financial sector reform program in Nepal can also be taken in the same background. Since, it is not possible to achieve financial stability without the commanding role of regulation and supervision, new program of financial sector reform program should play role regarding structural reformation/ transformation and organizational structure in existing banks and financial institutions by clarifying the role of government and central bank

Khatiwada (2003)in the article "*Banking Sectors Reform in Nepal I & II; Implications for Corporate Governance*" has indicated that recent financial crisis have revealed a number of data deficiencies, notably in pledged assets, deposits held in financially weak domestic banks and their foreign affiliates, valuation practices leading to bank valuation of assets being significantly different from market values and complicating assessments of the realizable value of reserve assets. Similarly, public information is lacking in many countries on the off-balance-sheet activities of the authorities that can affect foreign currency resources. There was a lack of information on the authorities' financial derivatives activities. Also was observed that inadequate information of actual and potential foreign liabilities of the monetary authorities and central government. Financial sector reform envisages for measures for mitigating this information and data gap problem as well.

Abor (2005) in the article "*The Effect of Capital Structure on Profitability*" has enlightened that the relationship between capital structure and firm value has been the subject of

considerable debate. Throughout the literature, debate has centered on where there is on optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value. The capital structure of a firm concerns the mix of debt and equity the firm uses in its operation. Brealey and Myers content that the choice of capital structure is fundamentally a marketing problem. Other theories that have been advanced to explain the capital structure of firms include bankruptcy cost, agency theory, and the pecking order theory. These theories are discussed in turn. Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater then zero. He further mentioned that the bankruptcy probability increases with debt level since it increases the fear that the company might not able to generate profits to pay back the interest and the loans. The potential costs are the legal and administrative costs in the bankruptcy process. Examples of indirect bankruptcy costs are the loss in profits included by the firm as a result of the unwillingness of stakeholders to do business with them. The use of debt in capital structure of the firm also leads to agency costs. Agency costs arise as a result of the relationships between shareholder and managers and those between debt holder and shareholder. The need to balance gain and costs of debt financing emerged as a theory known as the static trade off theory by Myers. It value the company as the value of the firm if unlevered plus the present value of the tax shield minus the present value of bankruptcy and agency costs. In summary there is no universal theory of the debt equity choice. Different view points have been put forward regarding the financial choice.

2.6 Review of Thesis

Udas (2007) in the study "*Capital Adequacy and its Significance to Commercial Banks*" has the following major objectives: To analyze the implementation status of the directives given by NRB; To evaluate capital adequacy of the commercial banks; To examine the efficiency and weakness of Capital Adequacy Ratio.

The study has analyzed that none of the banks (SCBL, NABL, NIBL, EBL, HBL, NICB, LBL, and KBL) have been able to meet the mandatory requirement of supplementary capital of 6% as per the NRB directives. On the other hand the entire above bank exceeds the mandatory requirement of core capital of 6% as per the present NRB directives. The supplementary capital of LBL and KBL are the least as compare to NIBL and EBL, where as in terms of core capital they are just the opposite. On, the overall capital adequacy ratio the

above findings revels that SCBNL, NABIL, EBL and NICBL have met the standards of NRB directives where as NIBL, HBL, LBL and KBL have not met the standards.

The study has concluded that New directive of NRB are made with a view to protect the deposit of depositors, which also enhances the financial strength of the banks. Even then it has adverse effect in profitability of the banks but this decreasing profit will affect the banks in short term. This study also reveals that there is a significant impact of NRB directives of capital adequacy on the various aspects of the commercial banks and it also helps in maintaining the stability of commercial banks in the financial market and to uplift the baking sector in Nepal to international standard.

Pradhan (2007) conducted the study "*A study on capital Structure of Manufacturing Sectors and Hotels*". The main objectives of this study were; To analyze the relationship between Capital structure and the value of the firm; To identify the Capital structure decision for BNL, ULNL, YYH and SH; To access the trend of change in Capital structure of BNL, ULNL, YYH and SH; To describe Capital structure, financial leverage and other relevant variables of the BNL, ULNL, YYH and SH; To know about the relationship between long-term debt and equity capital.

The study was conducted by analyzing the effect of financial leverage on return and risk and also picks out the relationship between Capital structure and related variables. From the analysis of different respondents view, it is drawn the conclusion that debt ratio and capital structure has positive relation. From the analysis of different questioner filled by the respondents, it is found that current political situation affect the profitability ratio of service sector than that of Mfg sector. The political situation and profitability ratio of service ratio has positive relation. This means favorable political situation helps to increase the profit of the service sector and vice- versa.

This study concluded that all the four companies are using equity as well as debt capital in their capital structure. However the total debt amount is increasing for ULNL while it is decreasing for BNL. From the leverage analysis ULNL and Y and Y have higher percentage of debt equity ratio. BNL has 72.76% of the assets finance by equity but ULNL has only 41.04% BNL and SH hotel use more than 50% equity capital of their assets whereas other sample companies use less than 50% equity capital.

Subedi (2008) made the study "*NRB Unified Directives on Capital Adequacy Norms and Its Impact*" with the following main objectives: To analyze the significance and impact of NRB Capital Adequacy Norms on NIC Bank; To examine the Capital Adequacy of NIC Bank; To examine the relation of Capital Fund to the other stakes of the bank; To analyze the steps taken by NIC Bank to fulfill the requirements as per these Norms;

This study has analyzed that the Capital adequacy Ratio of the bank is in decreasing trend. It is obvious, as transaction of the bank increases; the Risk Weighted Assets also increases in the same manner. But this creates bank difficulty to maintain capital fund as required by the NRB as capital do not increases often and the performance of the bank (i.e. earning of the profit) has major role to comply with the NRB requirements. The study further analyzed that NIC Bank has been performing well enough to comply with the requirements without failure at any point of time. The Capital Adequacy ratio of the Bank is 12.20 on 16July 2007 showed the satisfactory position of Bank's capital fund.

The study concluded that Commercial banks of Nepal are bound by the NRB directives and are currently bound by Unified Directives issued for all financial institutions. The directive no 1 has set norms on capital adequacy for commercial banks. Every commercial bank has to meet the requirements of capital adequacy as stated by directive. Capital adequacy is the portion of capital fund with regards to risk weighted assets that a commercial bank holds. Capital adequacy is required to safeguard the money of the depositors as the banks are playing with the money they collected from the depositors.

Malik (2009) made a study "*Capital Structure Management in Nepal (A case study on NABIL, NIBL, NEA, NTC & HGICL)"* with the following objectives: To show the trend of composition of assets and capital structure; To analyze the return on equity and assets; To analyze the value of the firm; To analyze the aggregate liability bearing capacity of the selected organizations; To analyze the relationship between liability and assets of the selected organizations; To analyze the profitability of the selected organizations.

This study made an analysis that NIBL has lower capital to other liability ratio which indicated NIBL is mobilizing excessive deposit than its capital or deposit is in significantly

higher side. Similarly NEA is using more or less unvarying gearing or NEA is also depending other collected liabilities than owner' capital. Trend of HGICL is seems more fluctuating because it has shown down trend. In the past HGICL is mobilizing owner's capital only but after the period of 2006 HCICL is mobilizing other capital significantly. Similarly Ratio of NTC is mobilizing owner's capital significantly or NTC has it' own un-mobilized capital so NTC is not depended on other liabilities. Comparatively, capital to other liability ratio of NIBL and NABIL is lowest, ratio of NEA is lower, HGICL has higher ratio and ratio of NTC is in highest position.

This study made a conclusion that NTC is the organization having own sufficient fund, HGICL has moderate level of own fund, NEA has poor in the concern of self fund and NIBL and NABIL are poorest in the concern. Comparatively, NBIL and NABIL are massively investing in risky asset than other organization; HGICL is also deploying the capital on risky asset which is also aggressive investment. Similarly NEA is trying to invest on risky asset as the capital of the organization. NTC is either increasing the capital or reducing the volume of investment on risky asset so the ratio is higher than 100%.

2.7 Research Gap

All the above studies are concerned with the research related to impact of NRB Directives on various aspects of commercial banks. There is very limited study done on Capital Adequacy with respect to NRB Directives by previous researchers. The most of the studies have been used as financial tools and secondary data. They have only included summary, findings and conclusion in their study but not recommend concrete suggestions to solve the findings problems.

Thus, to fill up the gap, the study has been conducted on this topic through light on working on Capital Adequacy Position to suggest the possible measures for the betterment and welfare of the banking sectors. In the study many financial as well as statistical tools like ratio analysis, standard deviation, coefficient of correlation and primary tools have been used. Almost all the ratios have been applied to cover the analytical part and fulfill the objectives of this study. It involves more recent data of selected banks for six years. Probably this study may be the first research of its kind in the area.

CHAPTER - III
RESEARCH METHODOLOGY

Research Methodology can be understood as a science of studying how study has been done. This chapter looks into the Research Design, Nature and Sources of Data, Data Collection Procedure and Tools and Technique of Analysis. For the purpose of achieving the objectives of the study, the applied methodologies are used. The research Methodology used in the present study is briefly mentioned below.

3.1 Research Design

This study attempts to analyze the Capital Funds of commercial banks taking the data and information of Nepal Bank Limited, Rastriya Baniya Bank and NABIL Bank Limited. The research design is basically focused on analytical study. Ratio Analysis, Correlation Analysis and Comparative Analysis of the ratios have been done for analyzing the study. The study examines the relationship of Capital Fund to various other stakes, like Deposits, Credits, etc.

3.2 The Banks under Study

There are total 26 commercial banks presently operating in Nepal. Collecting the data of these entire commercial banks is not possible. Hence, Nepal Bank Limited, Rastriya Banijya Bank and NABIL Bank Limited have been selected for the case study.

3.3 Data Collection Procedure

The data and information are collected from both the primary and secondary sources. For the primary information, research interview and questionnaire are used. For the collection of secondary data and information, Unified Directives of Nepal Rastra Bank, Annual Reports of selected banks, various publications of Nepal Rastra Bank, magazines, the other publications and the internet (website: www.nrb.org.np) have been used. Also, for other related information, various books and periodicals have been referred from library.

3.4 Data Analysis Tools

Before analyzing the data, the data and information have been presented systematically in the formats of Tables, Graphs and Charts which will explain a lot about the data and information

collected. For the analysis of the study, the following financials tools and statistical tools are used.

3.4.1 Financial Tools

3.4.1.1 Ratio Analysis

Ratio Analysis is one of the best tools for financial analysis. Ratios can be taken as expression of relationships between two items or group of items and therefore may be calculated in any number and ways so far meaningful co-relationship is obtainable. In general, the Ratio Analysis is used as a benchmark for evaluating the financial position and performance of a firm.

The following ratios related to the banks are used to analyze the data:

(a) Capital Adequacy Ratio

Capital Adequacy Ratio is the foremost tool to analyze the Capital Fund of a bank. Actually, the fundamental objective of this study is to examine Capital Adequacy of Nepal Bank Limited, Rastriya Banijya Bank and NABIL Bank Limited. The Capital Adequacy Ratio is based on Total Risk-Weighted Assets (TRWA) of the bank. Capital Adequacy Ratios are a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. This ratio is used to examine adequacy of Total Capital Fund and Core Capital, which is yielded by the following formulas:

To measure the adequacy of Total Capital Fund:

$$\text{Adequacy of Total Capital Fund} = \frac{\text{Total Capital Fund}}{\text{TRWA}} \times 100\%$$

To measure the adequacy of Core Capital:

$$\text{Adequacy of Core Capital} = \frac{\text{Core Capital}}{\text{TRWA}} \times 100\%$$

(b) TRWE to Book Value Ratio

The TRWE to book value Ratio is an important tool in measuring mean risk of total credit in banking for credit risk. This is derived by the following formula:

$$\frac{\text{TRWE}}{\text{Total Book Value of Credit Risk}} \times 100\%$$

(c) Capital to Deposit Ratio

The Capital to Deposit Ratio is an important tool in measuring capital adequacy of banks. But this ratio cannot reflect the capital adequacy of a bank. It is agreed by many researchers that the Capital to Deposit Ratio has enjoyed the longest use of any ratio devised to measure and determine capital adequacy.

The Capital to Deposit Ratio is derived by the following formula:

$$\text{Capital to Deposit Ratio} = \frac{\text{Total Capital Fund}}{\text{Total Deposit Collected}} \times 100\%$$

(d) Credit / Deposit Ratio

The Credit / Deposit Ratio (CD Ratio) is a major tool to examine the liquidity of a bank. CD Ratio measures the ratio of fund that a bank has utilized in credit out of the total deposit collected. More the CD Ratio more the effectiveness of the bank to utilize the fund it collected.

The CD Ratio is derived by the following formula:

$$\text{CD Ratio} = \frac{\text{Total Credit}}{\text{Total Deposit Collected}} \times 100\%$$

Further, comparative analysis of the ratios of the bank with average industry ratios were also made to check the significance of the ratios of the bank in the industry as a whole.

3.4.2 Statistical Tools

The following statistical tool is used to analyze the data:

(a) Karl Pearson Correlation Analysis:

The relation between two variables is correlated by Karl Pearson's Correlation Coefficient.

The following is the formula proposed by Karl Pearson for calculation of Correlation coefficient.

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\ \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

Where,

N = Number of pairs in observation

X = Product of the first variable

Y = Product of the second variable

To ease the calculation, a shortcut formula has been proposed which has been used to calculate correlation coefficients in this thesis report. The shortcut formula is as follows:

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2}\sqrt{\Sigma y^2}}$$

Where,

$x = (X - \overline{X})$

$y = (Y - \overline{Y})$

b) Multiple Correlation Co-efficient

Many independent variables do affect the dependent variable and the study on degree of relationship between a single dependent variable and a number of independent variables ratios depends upon the total capital fund and total risk weighted exposures. If we measure the association between capital adequacy ratio on one side and all other factors affecting the CAR taken together on the other side, then we are using multiple correlation analysis. Such a relationship is measured by multiple correlation coefficients, which is denoted by $R_{1.23}$ ….n. The subscript left to the dot is the dependent variable and to right is the independent variables. Let us consider three variables say Capital Adequacy Ratio X_1, Total Capital Fund X_2 and Total Risk Weighted Exposures X_3 then,

$R_{1.23}$= correlation coefficient between dependent variable CAR X_1 and joint effect of the independent variables Total Capital Fund X_2 and Total Risk Weighted Exposures X_3 on Capital Adequacy Ratio X_1.

$$R_{1.23} = \sqrt{\frac{r_{12}^2 + r_{13}^2 + 2r_{12}r_{23}r_{13}}{1 - r_{23}^2}}$$

Where,

$$r_{12} = \frac{\Sigma x_1 y_2}{\sqrt{\Sigma x_1^2}\sqrt{\Sigma y_2^2}}$$

$$r_{23} = \frac{\Sigma x_2 y_3}{\sqrt{\Sigma x_2^2}\sqrt{\Sigma y_3^2}}$$

$$r_{13} = \frac{\Sigma x_1 y_3}{\sqrt{\Sigma x_1^2}\sqrt{\Sigma y_3^2}}$$

Table: 4.2
Risk-Weighted Exposures of Selected Banks over the period

	Fiscal Years					
	Mid July,2007	Mid July,2008	Mid Oct,2008	Mid Jan2009	Mid Apr2009	Mid July2009
Nepal Bank Limited						
A.RWE for Credit Risk	19,511,273,179	22,957,432,077	28,601,173,000	29,699,950,000	29,149,354,000	32,224,428,000
B.RWE for Operational Risk			2,776,408,000	2,908,338,000	2,908,338,000	2,908,338,000
C.RWE for Market risk			1,175,879,000	1,227,719,000	1,292,134,000	1,259,797,000
Total Risk Weighted Exposures(A+B+C)	19,511,273,179	22,957,432,077	32,553,460,000	33,836,007,000	33,349,826,000	36,392,563,000
Rastriya Banijya Bank						
A.RWE for Credit Risk	39,000,561,757.98	41,108,654,099.07	55,079,845,232	57,723,706,526	41,814,295,296	30,844,569,548
B.RWE for Operational Risk			3,157,301,228	3,517,301,228	3,517,301,228	4,035,992,758
C.RWE for Market risk			1,699,638,892	1,602,695,125	1,673,169,631	1,786,005,885
Total Risk Weighted Exposures(A+B+C)	39,000,561,757.98	41,108,654,099.07	60,296,785,352	62,843,702,879	47,004,766,155	36,666,568,171
NABIL Bank Limited						
A.RWE for Credit Risk	19,166,766,033	27,010,564,315	28,313,986,081	29,114,442,918	30,326,604,829	32,405,129,248
B.RWE for Operational Risk			2,264,233,871	2,264,233,871	2,264,233,871	2,264,233,871
C.RWE for Market risk			1,19,713,856	96,456,561	2,85,002,216	51,764,691
Total Risk Weighted Exposures(A+B+C)	19,166,766,033	27,010,564,315	30,697,933,808	31,475,133,350	32,875,840,916	34,721,127,809

(Source: Annual and Quarterly Reports of NBL, RBB and NABIL Bank Limited)

Table: 4.3

Capital Adequacy Ratio of Selected Banks over the Study Period

Year	Mid July 2007	Mid July 2008	Mid Oct 2008	Mid Jan 2009	Mid Apr 2009	Mid July 2009
Nepal Bank Limited						
Tier 1 capital to Total Risk Weighted Exposures	-32.6	-27.5	-17.73	-16.45	-15.96	-14.85
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	-37.97	-27.55	-17.73	-16.45	-15.96	-11.87
Rastriya Banijya Bank						
Tier 1 capital to Total Risk Weighted Exposures	-48.24	-42.37	-25.80	-23.00	-29.91	-37.04
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	-48.24	-42.37	-25.8	-23.00	-29.91	-37.04
NABIL Bank Limited						
Tier 1 capital to Total Risk Weighted Exposures	10.40	8.75	8.42	8.87	9.19	9.74
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	12.04	11.10	10.73	11.15	11.40	11.71

CHAPTER - V
SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Summary

This study is aimed to study capital adequacy for commercial banks set by NRB with the case study of Nepal Bank Limited, Rastriya Banijya Bank and NABIL Bank Limited.

Generally, Bank is known as the depositor's bank because the first primary function of the bank is to collect deposits. Therefore, bank collects huge amount of deposits and it lends to earn profit. Public hardly get surplus from their income and deposit to bank for safety. Banks earn profit by lending deposits in riskier assets. If the lending of bank suffers in loss then ultimately the deposit of depositor will suffer in risk. The promoters of bank always have ambitious to earn profit in short period by lending the money in riskier assets because riskier assets will give high return with high risk. To be responsible in lending the lending the money in riskier assets, the capital adequacy requirement need. Because capital adequacy requirement explains about ratio, about capital and total risk weighted exposures which can secure the depositors deposit by making shareholders responsible by increasing their capital if they want to lend investments in riskier assets.

Being the central bank of Nepal, NRB has the responsibility to give special attention to the interest of depositors. Because it has already explained the bank is the bank's of depositors' and the depositors can get only nominal interest in their deposited money? NRB has issued various directives to regulate commercial banks. The directive no. 1 has been issued for norms on capital adequacy to be followed by commercial banks.

The thesis has been prepared with the study of capital funds of Nepal Bank Limited, Rastriya Banijya Bank Limited and NABIL Bank Limited. The study showed that the capital adequacy requirement and its affect in banking system. Total capital fund of Nepal Bank Limited and Rastriya Banijya Bank is negative and it can not secure depositor deposit but NABIL Bank has sufficient fund prescribed by NRB. Risk Weighted Exposures has been increasing over the research almost all research banks. But its percentage on book value is different and it explains how many percentages have risk in book value of credit risk, it has shown in table

4.4. The capital adequacy ratio of Nepal Bank Limited is below by -14.85% in mid July 2009 which was -32.46% in mid July, 2007. It improved slightly. Rastriya Banijya Bank had dangerous capital adequacy ratio – 48.24% in mid July, 2007 and today mid July, 2009 has -37.04%. But private operated bank NABIL has smoothly maintained the capital adequately ratio prescribed by NRB 11.10% in mid July 2008 followed 11.00% requirements and 11.71% in mid July, 2009 followed 10% requirements.

The correlation coefficient of Capital Adequacy Ratio, Total Capital Fund, and Total Risk Weighted Exposures are significant for Nepal Bank Limited and Rastriya Banijya Bank Limited. But correlation between CAR and Total Capital Fund, CAR and TRWE is high negative of NABIL but correlation coefficient between total capital and TRWE is approximately perfect and also multiple correlation coefficient and determination.

5.2 Conclusion

The study concludes that the capital fund of the banks under study is highly depending upon share capital. The capital adequacy frameworks have many problems in Nepalese banking sector. Poor banking system, lack of professionalism, imperfect banking system are important problems. It has been concluded that the depositors are not aware of the fact of the necessity of adequate capital fund to safeguard their deposits. They deposit their money to any bank regardless of adequate capital fund which may endanger safety of their money.

The thesis has been prepared with the study of capital funds of Nepal Bank Limited, Rastriya Banijya Bank Limited and NABIL Bank Limited. The study showed the capital adequacy requirement and its affect in banking system. The main conclusion is that the total capital fund of Nepal Bank Limited and Rastriya Banijya Bank is negative and it can not secure depositor deposit but NABIL Bank has sufficient fund prescribed by NRB. Risk Weighted Exposures has been increasing over the study almost all sample banks. But its percentage on book value is different and it explains how many percentages have risk in book value of credit risk, it has shown in table 4.4. The capital adequacy ratio of Nepal Bank Limited is below by -14.85% in mid July 2009 which was -32.46% in mid July, 2007. It improved slightly. Rastriya Banijya Bank had dangerous capital adequacy ratio – 48.24% in mid July, 2007 and today mid July, 2009 has -37.04%. But private operated bank NABIL has smoothly maintained the capital adequately ratio prescribed by NRB 11.10% in mid July 2008 followed 11.00% requirements and 11.71% in mid July, 2009 followed 10% requirements.

5.3 Recommendations

After through study of the selected Banks, the following recommendations have been proposed for consideration by the concerned persons:

- The capital fund of the banks under study is highly depending upon share capital. It is recommended to the commercial banks to follow optimal capital structure which maximizes the market value of the firm. The both banks Nepal Bank Limited and Rastriya Banijya Bank should have increased core capital because their core capital is negative. NABIL Bank Limited can maintain its capital adequacy ratio by keeping perfect correlation coefficient between Total Capital Fund and TRWE.
- The capital adequacy frameworks have many problems in Nepalese banking sector. Poor banking system, lack of professionalism, imperfect banking system are important problems. Nepal Rastra Bank should have to reduce these problems in banking sector.
- It has been found that the depositors are not aware of the fact of the necessity of adequate capital fund to safeguard their deposits. They deposit their money to any bank regardless of adequate capital fund which may endanger safety of their money. Therefore, NRB should initiate awareness programs to make the depositors aware of such fact and carefully think before depositing money in any commercial banks.
- While providing loans and advances, banks should keep on account that the fund they are going to lend is the fund of the depositors and as such, needs to focus on the quality of the investments they make.
- NRB should consult to the various bank officials before setting or resetting standards on such capital adequacy norms. The complaints and criticisms of bank officials should be considered accordingly. Consequently, an optimal standard will be ensured which will satisfy almost everyone.
- It has also been recommended for the researchers who are interested in the same study of Capital Adequacy of Commercial Banks to use more statistical tools and to take sample of further more banks to get more relevant information about the topic.