Chapter-I

INTRODUCTION

1.1 Background of the Study

The Nepalese Financial Sector is comprised of Banking sector and other sector. Banking sector comprises Nepal Rastriya Bank (NRB) and Commercial Banks. The other 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 July 2011, the number of commercial banks is 31 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 Rastriya Bank, it played the role of Central banks too. The establishment of Nepal Rastriya Bank, the central bank of Nepal in 2013 B.S under the Nepal Rastriya 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 Magh 10, 2022 B.S. with the equity participation of HMG/N and the NRB under the Rastriya Banijya Bank Act. 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 Rastriya 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 Rastriya 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 Rastriya Bank. The following table depicts the types and numbers of financial institutions licensed by NRB by mid-July 2011. Consequently, by the end of mid-July 2011, altogether 273 banks and other financial institutions licensed by NRB are in operation. Out of them, 32 are

"A" class commercial banks, 87 "B" class development banks, 79 "C" class finance companies, 21 "D" class micro-credit development banks, 16 saving and credit co-operatives and 38 NGOs as shown in table below:

Table: 1.1

Number of Licensed Financial Institutions by NRB

S.N.	Type of Financial Institutions	Class	Number
1	Commercial Banks	A	32
2	Development Banks	B	87
3	Finance Companies	C	79
4	Micro Credit Development Banks	D	21
5	Saving and Credit Co-operatives	Non-classified	16
6	Non-Government Organizations	Non-classified	38
Total			273

(Source: http://bfr.nrb.org.np/list_banks_n_non_banks_htm Mid July, 2011)

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 31 commercial banks in Nepal and this study is related to capital funds of NABIL Bank Limited, Nepal SBI Bank and Kumari Bank Limited. And the thesis report is mainly focused on accordance of the Capital Adequacy Norms of Nepal Rastriya 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 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 Rastriya 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 NABIL Bank Limited

Nabil Bank Limited, the first foreign joint 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 objectives, Nabil provides a full range of commercial banking

services through its 47 points of representation across the kingdom and over 170 reputed correspondent bank sectors across the globe.

Nabil as a pioneer in introducing many innovative products in marketing concepts in the domestic banking sector represents a milestone in the banking history of Nepal as it started an era of modern banking with customers satisfaction measured as focal objective 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 Technology system, Banglore, India, Internet Banking system and Tele banking system.
(Source: http://www.nabilbank.com/)

1.3.2 Nepal SBI Bank Limited

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India (SBI), Employees Provident Fund (EPF) and Agricultural Development Bank Ltd. (ADBL)through a Memorandum of Understanding signed on 17th July 1992. NSBL was incorporated as a public limited company at the Office of the Company Registrar on April 28, 1993 under Registration. No. 17-049/50 with an Authorized Capital of Rs.12 Crores and was licensed by Nepal Rastriya Bank on July 6, 1993 under license No. NRB/l.Pa./7/2049/50. NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased to 511. Under the Banks & Financial Institutions Act, 2063, Nepal Rastriya Bank granted fresh license to NSBL classifying it as an "A" class licensed institution on April 26, 2006 under license no. NRB/I.Pra.Ka.7/062/63. The Authorized, Issued and Paid-Up Capitals have been increased to Rs. 200 Crores, Rs. 186.93 Crores and Rs. 186.93 Crores, respectively. In terms of the Technical Services Agreement concluded between SBI and the Bank, SBI provides management support to the bank through its 3 expatriate officers including Managing Director who is also the CEO of the Bank. A core management team viz. Central Management

Committee (CENMAC) consisting of the Managing Director, Chief Operating Officer, Chief Financial Officer and Assistant General Manager(Credit) oversees the overall banking operations in the Bank. ADBL divested its stake in the Bank by selling its entire 5% promoter shares to SBI on 14th June, 2009. Consequently, the Bank's corporate status has undergone change from its previous status as a Joint-venture Bank to a Foreign Subsidiary Bank of SBI. Presently fifty five percent of the total share capital of the Bank is held by the SBI, fifteen percent is held by the EPF and thirty percent is held by the general public.
(Source: http://www.nepalsbi.com.np*)*

1.3.3 Kumari Bank Limited

Kumari Bank Limited, came into existence as the fifteenth commercial bank of Nepal starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 1,485,000,000 of which 70% is contributed from promoters and remaining from public.

Kumari Bank Ltd has been providing wide - range of modern banking services through 28 points of representations located in various urban and semi urban part of the country, 19 outside and 9 inside the valley. The bank is pioneer in providing some of the latest / lucrative banking services like E-Banking and SMS Banking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, Utility Bill Payment Services, Inward and Outward Remittance services, Online remit Services and various other banking services. Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 30 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers. The bank has been able to get

recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, corporate governance and total quality management as the organization mission.

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

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 Rastriya 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 Rastriya 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 has focused on the following problems related to the subject matter:

- How is the Capital Adequacy examined in NABIL Bank, Nepal SBI Bank and Kumari Bank?
- What is overall financial conditions of selected banks?
- What are the factors affecting financial efficiency?

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:

- To examine the Capital Adequacy of NABIL Bank, Nepal SBI Bank and Kumari Bank.
- To examine the efficiency and weakness of capital adequacy ratio.
- To analyze the implementation status of the directives given by NRB.
- To provide appropriate suggestions and recommendations.

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: NABIL Bank Limited, Nepal SBI Bank Limited, and Kumari 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 secondary data relating only to selected banks.

- This study has been limited to three commercial banks only.
- The study areas are mainly focused on regulatory system on capital adequacy of Nepal. Thus the study area has been very specific.
- The accuracy of the calculation is fully dependent on the accuracy of the data provided by the concerned organizations.

Though the study completed within very limited time in order to be considered in a predetermined academic period it has tried its best to provide valid results as per its objectives and tried 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

A literature revive is an essential part of the studies. It is a way to discover what other researchers have covered and left in the area. Review of literature is the study of past research studies and relevant materials. It is the advancement of existing knowledge and in depth study of subject materials.

"Review of literature means reviewing research studies and other relevant proposition in the related area of the study so that all the past studies, their conclusion and deficiencies may be known and further research can be conducted. It is an integral and mandatory process in research work.

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
- Overview: Capital and Capital Adequacy
- Review of NRB Directives
- Capital Adequacy Norms for Commercial Banks
- 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.

This study shows the position of capital adequacy of commercial banks in different time periods. It is expected that the findings of this study will exert a significant impectus to make decision of maintaining adequate capital at minimize business risks. Capital adequacy is the core subject for long term sustainability of any organization. It is an emerging topic in financial sector. It can play a vital role for the success of commercial banks. To bridge the gap of implementing and supervisory bodies for their effective results in performance, this research is conducted.

In 1975, an international committee was formed by the central banks and supervisory authorities of ten centralized countries to coordinate the surveillance exercised by national authorities over the international banks. This group of ten countries, known as the G-10 countries, included Belgium, Canada, France, Germany, Holland, Italy Japan, Sweden, The United Kingdom and the United States. Since inception, the Basel committee on Banking Supervision has met regularly at the bank for international settlement in Basel, Switzerland. The Basel conduct 1975 provided a general statement on the responsibilities of national authorities for the supervision of international banks. This conduct was revised in 1983, paving the way for more standardized methods of bank supervision among central banks around the world.

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" *(Rosenberg; 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)*

A bank is a business organization that receives and holds deposits of funds from other make loan and extents credits and transfer funds by written order of deposits (The Encyclopedia America, 1984; 302).

A commercial banker is a dealer in money and substitutes for money and substitutions for money, such as cheques of bill of exchange. It also provides a variety of financial service (The New Encyclopedia Britannica, 1985; 1460).
In the Nepalese context, commercial bank act, 1975 A.D. defines "A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loans and performs commercial banking functions (Commercial Bank Act, 1974 A.D.).

Commercial banks are those banks which perform all kinds of banking function such as accepting deposits, advancing loans, credit creation and agency functions. They provide short term loan, medium term loans and long term loans to different business house and trading companies. NRB act 2031 has defined the meaning of commercial bank as the bank which performs the commercial functions.

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.

2.1.2 Role of Commercial Banks in Economy Development

Commercial banks play vital role in economic development of the country. In brief the main objective of bank is to invest the ideal resources for productive use after collecting those scattered resources. Its role in economic development is so immense; it brings greater mobility of resources to meet the emerging necessity in the economy. The essence of the commercial bank is the financial intermediation between the ultimate savers and borrowers. The bank's main function is to act as middle- man between the surplus and deficit units in the

economy and as a bank like any other firm is in business to make profit to its shareholders.

The major problem is almost under development countries like Nepal in lack of capital formation and their proper mobilization. In such countries the commercial banks have to take more responsibilities and should act as development bank due to the lack of other specialized institutions. The commercial banks can help in economic development which can uplift the life style of the general people by collecting tax and interest from its profit operations and generating the employment opportunity itself. Economic stability can be maintained as better by the commercial banks as that of than direct way. The commercial banks accumulate scattered saving in term of deposit grant long term as well as short term loan in the several sectors. Naturally, industrialization enhances to develop for agriculture sector. This "Bank" can be rightly interpreted as the king of business world and promoter of economic development.

In brief, commercial banks occupies greater role in economic development by generating the saving towards the desired sector from one place to another, communicating with its branches and agencies in different parts of the country and the world and advising to the commercial peoples.

Table: 2.1
List of commercial Banks in Nepal

S.No.	**Names**	**Operation Date (A.D.)**	**Head Office**	**Paid up Capital** *(Rs. '00 Thosands)*
1	Nepal Bank Ltd.	1937/11/15	Kathmandu	3804
2	Rastriya Banijya Bank Ltd.	1966/01/23	Kathmandu	3853
3	Agriculture Development Bank Ltd.	1968/01/02	Kathmandu	94375
4	Nabil Bank Ltd.	1984/07/16	Kathmandu	20298
5	Nepal Investment Bank Ltd.	1986/02/27	Kathmandu	24091
6	Standard Chartered Bank Nepal Ltd.	1987/01/30	Kathmandu	16102

7	Himalayan Bank Ltd.	1993/01/18	Kathmandu	20000
8	Nepal SBI Bank Ltd.	1993/07/07	Kathmandu	18693
9	Nepal Bangladesh Bank Ltd.	1994/06/05	Kathmandu	20103
10	Everest Bank Ltd.	1994/10/18	Kathmandu	11196
11	Bank of Kathmandu Ltd.	1995/03/12	Kathmandu	13595
12	Nepal Credit and Commerce Bank Ltd.	1996/10/14	Siddharthanagar, Rupandehi	13997
13	Lumbini Bank Ltd.	1998/07/17	Narayangadh,Chitawan	13000
14	Nepal Industrial & Commercial Bank Ltd.	1998/07/21	Biaratnagar,Morang	13116
15	Machhapuchhre Bank Ltd.	2000/10/03	Pokhara, Kaski	16272
16	Kumari Bank Ltd.	2001/04/03	Kathmandu	14850
17	Laxmi Bank Ltd.	2002/04/03	Birgunj, Parsa	16140
18	Siddhartha Bank Ltd.	2002/12/24	Kathmandu	15610
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa	15000
20	Citizens Bank International Ltd.	2007/06/21	Kathmandu	19223
21	Prime Commercial Bank Ltd	2007/09/24	Kathmandu	22457
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu	18554
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu	15175
24	DCBL Bank Ltd.	2008/05/25	Kamaladi, Kathmandu	19209
25	NMB Bank Ltd.	2008/06/05	Babarmahal, Kathmandu	16517
26	Kist Bank Ltd.	2009/05/07	Anamnagar, Kathmandu	20000
27	Janata Bank Nepal Ltd.	2010/04/05	New Baneshwor, Kathmandu	14000
28	Mega Bank Nepal Ltd.	2010/07/23	Kantipath, Kathmandu	16310
29	Commerz & Trust Bank Nepal Ltd.	2010/09/20	Kamaladi, Kathmandu	14000
30	Civil Bank Litd.	2010/11/26	Kamaladi, Kathmandu	12000
31	Century Commercial Bank Ltd.	2011/03/10	Putalisadak , Kathmandu	10800
32	Sanima Development Bank	2011	Nagpokhari,Kathmandu	

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

2.1.3 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 2011, the number of commercial banks is 32 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.

2.1.4 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, in so far, 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 cost 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 Rastriya Bank is the supervisory body of all the licensed institutions that carry banking transactions.

2.1.5 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 Rastriya 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 Rastriya 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 Rastriya 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. So, arrived result should be reported their respective board of directors as well as the Nepal Rastriya 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 based 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 first 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 the 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 Rastriya Bank has planned to adopt PCA framework through Monetary Policy for FY 2009/2010 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 Rastriya 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.

2.2 Overview: Capital and Capital Adequacy

2.2.1 Meaning of Capital

"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). When talked of a capital, the authorized capital is the maximum amount that a bank may issue during the course of its operation and it's mentioned in the memorandum of Association of the bank. The issued capital is that portion of the capital, which is issued by the bank to the public for subscription. The subscribed capital is the amount of capital subscribed by the general public. It can be either whole or just a part of the issued capital. Called up capital is the amount of capital that the shareholders. This is the only cash that have been realized by the bank. The difference between the called up capital and the paid up capital is the uncalled capital.

With an objective to develop a healthy, competent and secured banking system for economic prosperity of the country and to safeguard the interest of depositors, NRB issued the directive no. 1 regarding minimum capital fund to be maintained by commercial banks. NRB issued these capital adequacy norms by using the power given by bank and financial Institutions Act (BAFIA).

Rosenberg (1982) has defined capital in relation with banking as a long-term debt plus owners' equity. 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 depositor and counterparties from the risks of the institution's on-balance sheet and off-balance sheet risk.

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.

Patheja (1994) has defined banks capital as 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 serves as a buffer for absorbing losses, a broader definition of bank capital include this account.

Verma and Malhotra (1993) have indicated that 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. 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.

"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).*

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a. 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 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.

2.2.1.1 Elements of Tier 1 Capital

a. Paid up Equity Capital
b. Irredeemable non –cumulative preference shares which is 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

2.2.1.2 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.

Following items should be deducted while determining Core Capital

1. Goodwill.

2. Investment made in the shares and debentures of the companies crossing the limit prescribed by NRB (Directive No. 8).

3. Total investment made in shares and debentures of those companies where financial interest prevails.

4. Fictitious Assets.

Definition of Capital Adequacy

The Term ' Capital Adequacy ' in relation to the Commercial Bank is used to describe the adequacy of Capital resources of a Bank in relation to the risks associated with its operation. Bank employs their fund in different assets. These assets can be categorized into risky, semi-risky and risk free. Likewise, banks carry out various off balance sheet items and are prone include in to contingent liabilities. On the basis of credit risk inherent/ nature in assets and contingent liabilities, there is a practice of assigning risk weights to them. Once we multiply assets and off balance sheet items by respective risk weights, we find risk weighted assets. Underlying purpose of capital adequacy system is to protect the interest of depositors and creditors by making bank keep more risk-free assets and by increasing their capital base. Adequate Capital keeps the bank healthy and strong against all the contingencies and enhances the image of the bank in the financial market

Necessity of Capital Adequacy

Adequacy and inadequacy of bank capital directly affects the banking transaction. If there is inadequacy of capital, the bank should take step for the adequacy of capital as per legal requirement. The adequacy of the bank capital is necessary for the following functions:

A. For the payment of all types of Deposits: Adequacy of bank capital is necessary for a bank, to give the payment of the amount of all types of deposits to its customers. Hence the adequacy of bank capital is needed to gain trust from its customers.
B. To Meet the Demand of All Types of Cash Reserve Funds: A bank should deposit the amount in different types of funds, in the Nepal Rastriya Bank and in its own bank. The Commercial bank should deposit cash in such funds. A bank can't reject

both of these obligations. Therefore, there is a need of an adequate bank capital for the deposit of cash in all funds created.

c. Investment for Banking Transaction and Business: With the lack of an adequate bank capital, the bank can't meet daily administrative expenditure and the investment in different sectors to gain profit. A bank can't be operated, unless it performs both of these functions. So, to perform the above given functions the bank needs an adequate bank capital.

Advantage of capital adequacy:

The Advantages of the Bank Capital Adequacy are as follows:

a. If the bank has an adequate bank capital, people trust upon such both. Such bank becomes successful to gain the trust of all sectors.

b. If the bank has adequate capital, it can invest into any sector at any time from which the bank gets success to gain a lot of profit. With the lack of Adequacy of bank capital the bank can't earn profit. But if the bank has adequate bank capital, it can invest in priority sectors, in any big project, it can move ahead with its investment.

c. The bank does not need to take loan and does not have to pay interest.

d. The bank doesn't face problem to collect the capital.

e. There will be not possibility of liquidation of bank.

Disadvantage of Capital Adequacy:

The disadvantages of the Bank Capital Adequacy are as follows:

a. If there is inadequacy of bank capital, the bank can't get the trust from any other area. Its respect and reputation remains in endanger.

b. The bank should take loan from other different areas if there is lack of the bank capital adequacy and it needs to pay interest. From it, it has not any profit the bank.

c. With the lack of bank Capital Adequacy, the bank can't invest in its will whatever it likes. It is not possible to gain profit without investment.

d. With the lack of bank capital adequacy, the bank can't give the payment to amount deposited with it. The bank may lose its trust from it.
e. If there is no adequacy of bank Capital, the bank can't solve any crisis of financial rise and fall that occurs upon it.

2.3 Review of NRB Directives

Nepal Rastriya Bank is the leader of money market and capital. It is the chief of all the banks operation in the country. Funds used by banks for the purpose of advancing loans and leased assets are that of public. Banks collets deposits from public and it is very same fund that banks use to make profit and give back to the public. Thus, to prevent this public fund being misutilized and to protect the savings of public, NRB has given directives to perform all other jobs of all banks. NRB issues directive from time to time to enhance the strength of the commercial banks. The main objective of the directives is to control and monitor the commercial banks and other financial institutions.

Nepal Rastriya Bank has issued various directives in order to develop a healthy, competitive and secured banking and economic system to ensure national development. The new, updated and comprehensive set of directive has been issued on 2060-03-29 and is effective from 2062-04-01. While some of them are collections of existing directives, some other is new additions. It can be sagely assumed that with the updated and comprehensive set if directive, the functioning of commercial banks would be more transparent and systematic. At present the number of guidelines issued by NRB to commercial bank reaches sixteen which are as follows:

1. The provision of minimum capital fund to be maintained by the commercial bank.
2. The provision of loan classification and loan loss provisioning on the credit.
3. The provision relating to limit on credit exposure and facilities to a single borrower, group of related borrowers and single sector of the economy.
4. The provision relating to accounting policy and the structure of financial statements to be followed by the commercial banks.

5. Regulation relating to minimization of risk inherent in the activities of commercial banks.
6. The provision of institutional good governance to be followed by commercial banks.
7. Time frame for implementation of regulatory directives issued in connection with inspection and supervision of commercial banks.
8. Regulation relating to investment in shares and securities by commercial banks.
9. The provision of submission of statistical data to the NRB banking management division and inspection and supervision division.
10. Regulation relating to sale and ownership transfer of promoters shares.
11. Regulation relation to, stringent blacklisting procedure for loan defaulters.
12. The provision relating to compulsory deposited amount of NRB.
13. Regulation relating to developing the branch office of commercial banks.
14. Provision relating to interest rates.
15. Provision relating to collection of financial sources.
16. Provision relating to consortium financing.

Among the various new and updated directive, we discussed only relating to lending policy and practices as below:

Following instruments contain the features of both debt and equity which are called hybrid capital instruments.

1. Securities issued without collateral, can be fully paid-up instruments, preference in payment after depositors and creditors, participated at loss and can be converted into ordinary capital.
2. Instruments, which cannot be redeemable by the issuer without approval of NRB.
3. Perpetual or long-term preferred stock convertible to ordinary shares if profit loss accepts is a negative.
4. Debt instruments and redeemable preference shares issued without collateral, has life minimum 5 years and is payable after depositors are subordinated term debts. Banks are required to amortize at 20% discount rate every year. Banks make 100% provision if invested in securities not listed in the stock exchange.

2.4 Capital Adequacy Norms for Commercial Banks

Meaning of Capital

When talked of a capital, the authorized capital is the maximum amount that a bank may issue during the course of its operation and is mentioned in the memorandum of Association of the bank. The issued capital is that portion of the capital, which is issued by the bank to the public for subscription. The subscribed capital is the amount of capital subscribed by the general pubic. It can be either whole or just a part of the issued capital. Called up capital is the amount of capital that the shareholders need to pay. The paid up capital is the capital already paid by the shareholders. This is the only cash that have been realized by the bank. The difference between the called up capital and the paid up capital is the uncalled capital.

a) Capital Structure of Banks

Capital can be defined, as the money invested is the business. It is required to conduct the business activities and is the primary requirement for initial period of business. Capital refers to those funds contributed by the bank's owners, consisting mainly of stock, reserve and earnings that are retained in the bank rather than paid out to the stockholders. The current regulation of NRB prescribes that all the new commercial banks are to be established in Kathmandu at national level should have minimum paid up capital Rs. 2000 million; the existing banks in operation are required to enhance the capital level to Rs. 2000 million by the end of F/Y 2065/66 B.S. For this purpose and objective all the commercial banks have furnished their plans to enhance the level of capital accordingly. With effect from F/Y 2062/63, the commercial banks need to have minimum of capital adequacy as below:

Table 2.2

Capital Fund to be maintained

Time Period	**Capital Fund in % on the Basis of Total Risk Weighted Assets**		
	Core Capital	**Supplementary Capital**	**Total Capital Fund**
2064/65	5.5%	5.5%	11%
2065/66	6%	4%	10%
2066/2067	6%	4%	10%
2067/2068	6%	4%	10%

It is to be noted that capital fund comprise of both primary capital and supplementary capital. Similarly the risk-weighted assets will include both on-balance sheet item and off-balance sheet items. Standard format and weighted percentage is given in the directive itself and commercial bank need just to fill the columns to see whether required percentage is maintained or not.

Capital plan to be made by Commercial Banks

The paid up capital for establishing a national level new commercial bank shall be 2 billion. The commercial banks operating on national level basis have to enhance their capital as per this arrangement within 2070 years, i.e. by end of 2009 June. For this purpose, the commercial banks operating on national level basis have to appropriate 10 percent of their paid up capital from the profit to ' Capital Adjustment Fund'. The amount in the fund may be utilized as per this banks directive for the purpose of enhancing paid up capital within Ashad 2067. The commercial banks who are unable to earn profit have to submit their appropriate Capital plan' to this bank within Poush 2060".

Bank to be opened with operations all over the kingdom except in Kathmandu Valley shall have minimum paid up capital of Rs. 2 million.

Cash Reserve Ratio (CRR)

Effective from mid 2009, the NRB reduced the cash reserve ratio from the prevailing 5.5 percent to an average of percent of commercial banks total domestic deposit liabilities. Out of the 5.5 percent cash reserve, the commercial banks were required to maintain reserves of 8 percent with the NRB and to keep 2 percent as cash in their vaults. After the reduction of the CRR to 10 percent, its form has been made discriminatory with respect to various types of deposits. The banks are required to maintain 8 percent reserves on their domestic current and saving deposits and 6 percent on domestic fixed deposits with the NRB. They are also required to maintain 3 percent of their domestic as cash in their vaults. The reduction in CRR was expected to release additional liquidity in the market and lower the lending rates of commercial banks by lowering their cost of funds. Licensed co- operative must maintain 10 percent of their total deposits in liquid assets. (Source :- NRB, 2009)

2.4.1 Central Bank of Nepal

Nepal Rastriya Bank and Its function

By the study of various research and articles, it has been found that the components of CAMELS plays an important role in determining the financial status of any organizations especially for the banking sectors. Some researches were done in the 'CAMELS' components but no research was found in the sensitivity analysis. Hence, this research has attempted to fill this research gap by taking reference of NABIL Bank Ltd as a sample.

This research will be able to deliver same of the present issues latest information and data regarding' CAMELS' component after reviewing the relevant literatures, the next chapter consternates in research methodology applied in the research. Nepal Rastriya Bank (NRB), the central bank of the kingdom of Nepal, was established in 1956 to discharge the central banking responsibilities including guiding the development of the embryonic domestic financial sector. Since then, there has been a huge growth in both the number and the activities of the domestic financial institutions.

To reflect this dynamic environment, the functions and objectives of the bank have been recast by the new NRB Act of 2002, the preamble of which lays down the primary functions of the Bank as: to formulate necessary monetary and foreign exchange policies to maintain the stability in price and consolidate the balance of payments for sustainable development of the economy of the kingdom of Nepal ; to develop a secure, healthy and efficient system of payments; to make appropriate supervision of the banking and financial system in order to maintain its stability and foster its healthy development; and to further enhance the public confident in Nepal's entire banking and financial system.
(Source :- www.nrb.org.np)

2.4.2 Provision of Nepal Rastriya Bank

NRB has guidelines to the Bank and financial institution. It has categorized as four parts to the financial institutions namely A, B, C and D, AB is a class Bank so it is a commercial Bank. In the NRB Directives 20 guidelines has given among them direction No 1 is related with Capital Adequacy ratio where core Capital, Supplementary capital Total Risk exposure has given, which is guided by BASEL II.

Full form of 'CAMELS'

C = Capital Adequacy
A = Assets quality (NPA) or (NPL)
M = Management efficiency
E = Earning (Net profit)
L = Liquidity
S = Sensitivity (Market sensitivity)

So this is also important in any organizations and Institutions without camels we cannot evaluate and work performance of any organizations and Institutions. Nepal Rastriya Bank is known as the central bank of Nepal. It was established in 2013 B.S. under the Nepal Rastriya Bank Act 2012 B.S. prior to this bank there was no such

formal organization who controls and regulates the monetary system in the country. It is an autonomous body and fully owned by the government of Nepal, who works for the development of banking system in the country. "A central bank is the most important financial institutions of the country because it manages the expansion and contraction on money supply and economic development in the country. Central bank is the most important factor for the financial mobilization of the country central bank is the government's bank word over like it is the head of the monetary and banking sector. It formulates monetary policy. "The central bank plays a significant role in developing the banking system for the mobilization of resources and using them in the priority areas to match developing plan" (pant, 1971:38) It has authority to manage the whole economic system in a country, performs banking services for the country, and maintains the cash reserves of the commercial banks. It also works as a banker to the government and to commercial banks. It is the only organization who has full authority for note issue and manages the currency. The central bank is a non-profit organization although it generated profit in the course of its functions. Main objectives of Central bank as given below:

a. To issue notes.
b. To promote the use of Nepalese notes in the country as the use of currency was very popular in Nepal prior to its establishment.
c. To stabilize the foreign currency systems with the domestic currency.
d. To promote banking system throughout the country.
e. To advise the government with regards to fiscal and monetary policies for the economic development of the country. And.
f. To facilitate in the transactions of government.

Thus Nepal Rastriya Bank does the following main functions

Exchange Management and Control

Nepal Rastriya Bank manages and controls the country's foreign exchange reserve and the external value of rupee. It fixes the value of the rupee against all the currencies. However, it has given the authority to the commercial banks to fix their own rated of

the Nepalese Rupee against the foreign currencies. But, the commercial banks have to fix the interest rated ensuring that the difference between buying and selling does not exceed 0.75%.

Control of Credit

Nepal Rastriya Bank controls the money supply and credit in the country in order to stabilize the price and to meet the demand of the country's economy at different times. The different tools that it uses comprise interest rate alterations, open market operation, and reserve ratios etc.

Development of Banking Industry

NRB assists development of banking industry in the country. Rural Nepal hardly had any branches of commercial banks except those of Nepal Bank and Rastriya Banijya Bank, in the outlying areas of the country a decade back. But at present, the situation is completely changed. We find branch offices of joint venture banks almost everywhere. The entire credit for the particular expansion of the joint venture banks to other parts besides Katmandu valley goes to NRB. It is since the central bank come up with the concept of urban, sub-urban and rural branches that these banks opened branches in other parts of the country. This has had positive impact on the development of banking concept in the country, as people outside impact on the development of banking concept in the country, as people outside the valley as well have able to enjoy the services of modern banking instruments.

Training Facility

NRB has been instrument in training of the bankers of Nepal. Form time to time, the central bank organizes not only for its own staff members but also for the staff member of the other banks. The resource person that the central bank uses are skilled experienced and knowledgeable as a result of which they impact knowledge to the coming generations.

Monitoring Banking Industries

NRB has to monitor all of the banking industries in Nepal. It focuses the capital adequacy Ratio of each bank and financial institution. Basically Commercial bank has to maintained Minimum Capital adequacy Ratio as 10 % at each time. NRB follow the strong steps not maintains the minimum capital adequacy in the commercial banks in any time.

2.4.3 Provision of the Bank & Financial Institutions Act 2063' Relating to Capital Adequacy

The Bank and Financial Institutions Act 2063, issued by HMG governs the Capital Fund to be maintained by the Commercial Banks in Nepal. Above Ordinance has been issued as umbrella act governing all the financial institution operating in Nepal. As per section 40 (1) of the Ordinance, all the licensed Financial Institutions should maintain the minimum Authorized Capital, Issued Capital and paid- up Capital as specified by NRB from time to time. Similarly section 40 (3) states that if any Financial Institution is not able to maintain the specified minimum Authorized Capital, Issued Capital and the paid .up Capital, then such financial institution Capital, Issued Capital and paid- up Capital, then such financial institution could not declare and distribute dividend or to issue bonus share.

Section 42 (1) of the Ordinance state that all licensed financial institution should maintain the Capital Fund based on their total assets or the risk weighted assets as specified by NRB. In relation to the Capital Fund to be maintained by the commercial Bank, NRB has already issued directive no.1, which specifies in detail the minimum Core Capital and Capital Fund to be maintained by the Commercial Bank. Such capital is to be maintained as a percentage of the Risk-weighted Assets (RWA) hold by the Commercial Bank. In addition, the directive has also laid down the component of Capital Fund including Core Capital and Supplementary Capital, the procedure to calculate the Risk- Weighted Assets etc. The provision of directive no.1 is elaborated in detail in the fourth chapter.

2.4.4 Authority of Nepal Rastriya Bank

According to the World Bank, one of the most notable characteristics of NRB is its lack of autonomy and independence for e.g. the bank currently falls completely under the authority of the Ministry of Finance. In addition, the autonomy is prejudiced by its relationship with the largest state owned commercial RBB, which tends to operate effectively outside of the 'rules of the game' established the central bank. Given its sheer size within the banking system, R.B.B's lack of independence also demonstrated by the World Bank, for example, that the Minister of Finance's decision restricts the spread on deposit and lending rates to 5 percent was taken consulting the central banks, although the central bank is now expected to implement policy announcement. Similarly, the central bank requires the gov's permission before it can dismiss the board of financial institutions that have severely breached its regulations. This lack of independence is made all the more critical in Nepal where rapidly changing Governments may well manipulate monetary policy to meet shortterm political goals, to the detriment of long term macro monetary stability and growth. Of the 11 Central bank governors to date, eight have been appointed form outside the bank by the Ministry of finance. Also of the 11, only three have been able to complete their term of office.

2.4.5 Supervision and Regulation of Nepal Rastriya Bank

The NRB has the responsibility for the supervision and controls over banks and financial institutions. The bank's Inspection and Supervision Department carry out this responsibility. In order to ensure the sound, healthy and efficient operation of the financial system, the inspection and Supervision Department is mandated to carry out both off-site and on-site supervision of banks and financial institutions. Under off-site examination, the Department is responsible for carrying out regular monitoring of the portfolio structure of the banks and financial institutions to ensure strict adherence to prudential guidelines and various sect oral targets set by the NRB. The bank is generally regarded as having a weak and under .developed supervisory and regulatory capability one of the key reasons for this appears to be the inability to retain trained staff, which are attracted by considerably higher salaries offered by the private sector

financial institutions. But NRB is unable to effectively de-link the salary scale of its staff from the civil service pay scale. Another, area of weakness lies in the investment in technology, where the private banks have considerably superior information system and supervising them effectively is difficult. As a consequence, the central banks authority lacks the capacity to ensure that the system operated in a prudentially sound manner.

AS discussed above, all segment of financial sector including commercial banks, development banks, finance companies and licensed NGO and Co-operative are nominally subject to the regulation and supervision of the NRB in practice, this has meant licensing of all these institutional but reasonable supervision only of the commercial banks. The NRB's won Department of inspection and supervision has admitted to one of the multilateral that it has difficulties supervising even the registered Finance companies. So central bank has many responsible of all commercial banks.

2.5 Review of Previous Studies

This is the second phase. When the topic is finalized the related available materials like published books, journals, thesis, government publications business reports and so on have to be reviewed. The objective of reviewing the literature is to develop certain expertise and knowledge in one's area.

2.5.1 Review of Books

According to Sharpe, Alexander and Bailey, "Investment in its broadest sense means the sacrifice of current dollar for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all and the magnitude is generally uncertain" (Sharp, Alexander and Bailey, 2003: 1).

Charles P. Jones defines, "An investment is the commitment of funds to one or more assets that will be held over some future time period" (Jones, 1988:5).

Vaidhya (1997) in his book "Banking and Insurance Management" has described the sound investment policy. He writes, "A sound investment policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provides maximum safety and security to the depositors and banks on the other hand. Moreover risk on banking tends to be concentrated in the loan portfolio. When a banks gets into serious financial trouble, its problems usually spring from significant amounts of loans that have become uncollectible due to mismanagement, illegal manipulation of loans, misguided lending policies or unexpected economic downturn. Therefore the bank's investment policy must be such that it ensures that it is sound and prudent in order to protect public's fund.

He also adds that, what types of loans do bank make? How much of loans in each loan be invested? The banks make a variety of loans to a wide variety of customers from many different purposes form purchasing automobiles to construction of homes and making trade with foreign countries. Therefore, no uniform rules can be laid down to determine the portfolio of a bank. The environment in which the bank operates is influenced by its investment policy. The nature and availability of funds and also assets differ widely from country to country and also from region within a country. For example, scope of a banks operating in Jumla will be different from the scope of bank operating in Kathmandu city may not be applicable to the customers of Jumla because the demand for loans are less in rural areas whereas it is higher in city or in urban areas".

Bhattacharya (1975) in his book, *"Banking Strategy, Credit Appraisal and Lending Decisions"* has put the recommendation of Tondon Committee from the report submitted this committee. The committee has prepared this report, however these recommendation stills deserve great significance in the sector of credit appraisal and Lending. Breaking away from the traditional methods of credit appraisal, the system proposed by the Committee enjoined upon the banker:

1. To develop healthy banker-borrower relationship.
2. To improve the financial discipline of the borrower.

3. To assess the need based credit of borrower on a rational basis.

4. To ensure proper end-use of bank credit by keeping a closer watch on the borrower's business and thus to ensure safety of the banks funds.

The committee examined the examined the existing system if lending and recommended the following broad change in the lending system:
The credit needs of borrowers assessed on the basis of their business plans. Credit be made available in different components only, depending upon the nature of holding of various current assets. Borrowers are required to hold inventory and receivables according to norms

Prescribed by the Reserve Bank of India from time to time. Bank credit only supplementary to the borrower's resources and lot in replacement of them. Banks not to finance 100 present of borrower's requirement.

2.5.2 Review of Articles

In this section effort been make to examine and review of some related articles and journals published in different economic journals, which among the various reviews of various journals pertaining to the study, the major and mostly contribution to the study has been outline below:

Arunnodaya (2003) this articles he explain, *"Banking Sector's NPA Alarming"*. Non-Performing Assets in banking sectors that currently stands at 30%, the total NPA in the banking system is about 35 billon, while it is even worse in case of two largest commercial banks; Rastriya Banijya Bank and Nepal Bank Limited. The NPA levels at the state run RBB stands at 52%, while the figure at NBL reads 62%, which together account for 37% of total deposit of some Rs 200 billion and 40% of the total loan outstanding of Rs. 125 billion of the banking system. Private sector bank has less non-performing assets in comparison to RBB and NBL. Neupane, NRB 46th Anniversary; 142, He said that directives asked the financial institutions to provision 100% on collateral that the banks accept themselves after they fail to action. As per the directive, the banks cannot place such assets in their income account until such

collateral is converted into cash. Prior to directive, banks used to provision for losses on non-banking assets only if amount recovered form auctioning of collator is not to cover the principal and interest.

Sharma (2004) in his article *"Banking the Further of Competition"* has said, due to the back of investment avenues, banks are tempted to invest without proper credit appraisal and one personal guarantee, whose negative side effects would show colors only after 4 or 5 years. Again he said that "Private CBs have mushroomed only in urban areas where banking transactions in large volume is possible. The rural and sub-urban areas mostly remain unattended.

Arunnodaya (NRB 2008; 456) in his articles *"Liquidity Crisis in Nepalese Financial system and its impact on Economy"*. Liquidity shortage circumstances be it a short or long run, it impedes sound financial mobility in all spheres of financial life. While in long run, it will definitely have great impact on growing economy. While liquidity shortage persists in economy for a long time, interest rates on both deposit and loan go up. It therefore, rules out for the cheap consumer loan. However, increase in interest rates on productive sector investment doesn't make any significant difficulties. To tackle to this problem, commercial banks need to run its financial transaction in as low spread as possible. On the contrary, growing interest rate on deposit will finally pressure to informal outflow from the economy.

Mundal (2008), CEO of Standard Chartered Bank Nepal in an article titled, *"Investing with intelligence"*, has expressed the following view; People within organization and investors say that the current economic condition of the country is a big barrier of making opportunities available to prospective investors. Investor's awareness of the market is not up to the mark. A through risk analysis should be alone before making any decision. He finally suggested that investors should put a little extra for a proper study before any investment decision.

www.google.com, under the Global Financial Crisis (2005), the personal savings rate in America hit a post Great Depression low of negative 0.5% - people were spending more than they were earning. These reduced savings rates were offset at the time by increasing real estate values and a growing national deficit of more than $9 trillion, which was temporarily propped up by lending from foreign nations. Low, teaser,

mortgage rates lured Americans to buy homes that would eventually reset at higher payment values. Financial experts in Wall Street bought up and packaged these subprimes. Mortgage backed securities and distributed them worldwide, as a fail-safe means for investment.

All the while, America's manufacturing base was being decimated, losing more than 3 million jobs since 2000. The industrial sector, along with many others, were rendered unable to compete in the world through faulty trade agreements that closed down factories, off-shored entire industries and put Americans into service jobs with lower pay and poorer benefits.

Then the housing bubble burst and home prices, which had for so long offset wealth stagnation and reduced savings in the American middle class, started to plummet. Citizens that had taken subprime loans saw their rates reset to higher amounts and started to default on their mortgage payments. As a result, an estimated 2 million Americans were in danger of losing their homes. The rise in foreclosures sent banks and financial institutions- such as Bear Stearns- that had bet on the now .toxic. loans to suffer catastrophic losses in capital. Foreign investors that had already been stockpiling dollars as a reserve currency begin to .unload. the greenback due to its declining worth by buying up more and more American companies, diverting U.S. innovation, profits and key ownership positions abroad.

According to *"The economic outlook Understanding the Local Effects of the Global Financial Crisis"* It all started in midsized US cities such as Phoenix and Las Vegas. The banks which financed the housing booms of those towns then pooled their loans, trenched and resold them to willing investors via securitization. This opportunity to immediately sell the loan incentives these banks have innovated new methods to increase their lending. In particular, banks started to issue adjustable rate mortgage (ARM) to even those people with credit rating lower than 600 called "sub prime" borrowers who had defaulted or delayed in their credit payment in the past. It was a classic moral hazard problem: since the banks could "sell" the loans to other investors, they were careless in screening the borrowers. A bubble started to form in the housing market, abetted also in part due to a 1997 law that allowed capital gain in houses to be deductible, making speculation very attractive.

During the last decade, several banks of Nepal deposited their money in India, due to lack of investment opportunity at home, which had depressed the interest rate in Nepal. Around the same time, the interest rate was also low in the US economy because many Indian, Chinese and other banks had bought US securities to hedge against currency depreciation against the dollar. Several Asian governments also bought US securities to peg the exchange rates at the level their export oriented industries find favorable. Those how purchased risky securities could also purchase credit default swamps (CDS) . an insurance against default. For a brief time, these layers of financial instruments made almost everybody feel they were safe, and that they were getting their share of the housing market boom.

The availability of cheap loans to buy houses increased their demand, which led to the increase in the price of houses. However, several of these buyers were speculators, who didn't intend to line in the houses they bought. It was inevitable that once demand for houses started dropping, they would try to sell the houses quickly and if they couldn't do that, they would default on the payment. In February 2007, the first sign of default in mortgage arrived: mortgage related index, ABX, dropped. Then, in May, UBS closed Dillon Read, its hedge fund, after incurring a loss of 125 million dollars. In July, the major US home loan provider, Countrywide Financial Crop, reported a drop in earnings, and National Association of Home Builders reported a year-on-year home sale drop of 6.6%.In Europe, a German Bank, IKB, had to be rescued, because its home related roll over asset-backed papers couldn't be sold in the short term liquidity market and it lacked enough liquidity to operate. After this incident, banks became cautious, and became reluctant to extend loans to other financial institutions. Meanwhile, this slowly resulted in the liquidity crunch for firms. To mitigate this situation, the Fed lowered the discount rates by half a percentage point. The measure worked temporarily, as funds operated by foreign governments (sovereign funds) responded by investing 38 billion in the November 2007-January 2008 period. In January, Fitch downgraded Ambac, a normally reliable giant thatinsures municipal bonds against default, which sent a shock wave throughout the world.

In India, where the stock market exchange SENSEX had risen from 13,000 in March 2007 to its all time high 20,873 in January, decline in the stock market started at this period. Some major Indian firms which were able to raise money abroad to finance their projects suddenly faced a very risk-averse international financial market. Later, in a talk at the International Monetary Fund (IMF), Dr Rakesh Mohan, deputy governor of the reserve Bank of India, said that if the situation persisted, these firms would be forced to seek loans domestically, driving interest rates up. This probably of Nepali banks deposition their money in India.

Around that time, a Saudi-backed investment firm, Carlyle Capital, couldn't meet its margin calls, and a fraction of its assets was liquidated. Bear Stearns was a major creditor for Carlyle, and this action affected Bear Stearns. The hedge fund clients of Bear Stearns felt uneasy about this, and there was a run on the firm the next day. The New York Fed then arranged an overnight deal for JPM organ Chase to acquire Bear Stearns. During the July-August period, Indy Mac, three large mortgage firms, were put in conservator ship by the Federal Deposit Insurance Corporation (FDIC) and the US government respectively. In September, Lehman Brothers declared bankruptcy and Merrill Lynch was acquired by Bank of America. In India, this alarmed authorities, and they asked the banks to furnish their exposure to Lehman Brothers. Out of 77 banks, 14 banks reported their exposure to Lehman Brothers (The concern for Nepal lies here: in particular, it is crucial to find out whether our banks have any ties with These Indian banks and the extent of such ties in order to estimate the exact impact on Nepal.) On Sept.16, 2008, AIG, a big insurance firm, saw its share price plunge by 90 percentages. Meanwhile, though more than 20 banks failed in the United States during this period, Asian banks remained largely immune from the crisis. The attitude in Asia can be summarized by the result of a study done by Reserve Bank of India in September 2007 which concluded that there had been no direct exposure of Indian banks to the sub prime disaster of the United States. However, as it turned out later, some banks had purchased collateral debt obligation of American banks, and would suffer a bit.

Back in states, the way thee firms fell had a significant effect on the trust among firms and banks. Firms stopped trusting other firms, and the mechanism that was greasing the wheels of the giant financial machine almost stopped functioning. Panic

spread, and in the chaos, Washington Mutual, a 158 year old bank, became victim of an electronic bank run, and was sold to JPM organ Chase by FDIC. Another big bank Wachovia was sold to wells Fargo in September. During this panic, firms, state and local governments too reported difficulty in getting credit. To restore normalcy, The US government passed an 800-billion-dollars bailout package. The market however though it was too small, given that 8 trillion dollars had been lost in one previous year in the stock market and reached negatively to it. The Fed meanwhile kept on buying asset backed securities and reduced the interest rate to almost zero in December, just to facilitate the credit access of the firms.

Around this time, the global fiscal crisis alerted Nepali businessman Binod Chaudhary emphasized that the first order effect, in which Nepali firms were directly affected would be significant, whereas the finance minister and others seemed to think first order effect would be insignificant while allowing for second order or higher order effect. In India, the equity market suffered because of reversal of portfolio equity flows. It caused negative effects on the Forex market and liquidity conditions. Besides that, India as a country was deemed to be unaffected. Assuming Nepali financial institution only foreign exposures is to Indian banks, the Nepali financial ministers and other who claimed Nepal to be quasi-immune from international financial system, were right. Furthermore, the Nepali equity market is not financed with foreign money;

2.5.3 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 Tier 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 too, 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.

2.5.4 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 (2005) concluded in the article "*Financial Sector Reform Program: Issues and Challenges*" that being the central bank of the nation, Nepal Rastriya 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.

2.5.5 Review of Thesis

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%.

Khadka, (2010) in the study "NRB Unified Directives On Capital Adequacy Norms And Its Impact: A Case Study of SCBL, HBL NIBL and ADBL " has the following major objectives: To analyze the implementation status of the directives given by NRB; To evaluate capital adequacy of the samples banks; To examine the efficiency and weakness of Capital Adequacy Ratio; To examine the relation of capital fund to the other stakes of the banks.

The study has analyzed that none of the banks (SBI, Nabil Bank Ltd, Kumari Bank Ltd) 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 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.

2.6 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. So, this study will be fruitful to those interested person, scholars, civil society, stakeholders, stakeholders, students, teachers, businessman and Government for academically as well as policy perspectives.

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 SBI Bank Limited, Kumari Bank ltd and NABIL Bank Limited. The research design is study basically focused on analytical as well as descriptive analysis. 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 32 commercial banks presently operating in Nepal. Collecting the data of these entire commercial banks is not possible. Hence, Nepal SBI Bank Limited, Kumari Bank Ltd 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 Rastriya Bank, Annual Reports of selected banks, various publications of Nepal Rastriya 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 SBI Bank Limited, Kumari Bank ltd 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.

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

Where,

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

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

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

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

This chapter deals with the presentation, analysis and interpretation of relevant data and information of Banks under study. Also, the analysis and interpretation of the information and data is also contained in this chapter. To obtain the best result, the data and information have been analyzed according to the study methodology as mentioned in Chapter 3. The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating and performing statistical analysis.

This chapter is partitioned into the sections of:

1. Presentation of Data
2. Ratio Analysis
3. Statistical Analysis
4. Comparative Analysis of Significance of the Ratios of the bank with that of the Industry Average
5. Impact of Capital Adequacy Norms
6. Study of knowledge of banks officials on capital adequacy

4.1 Presentation of Data

The collected data and information are presented. Various tables, charts and graphs are used to best present the data. The data and information has been presented in most understandable format.

4.1.1 Capital Fund

Capital Fund of a bank consists of two types of components viz. Core and Supplementary Capital. Hence, the Total Capital Fund of a bank is derived by adding these two components of capital. The Capital Fund of selected banks has been illustrated here in after.

4.1.1.1 Capital Fund of Selected Banks

The capital funds of selected banks have been tabulated in table 4.1 which shows the capital fund of the bank over the following period.

Table: 4.1

Capital Fund of Selected Banks over the Study Period

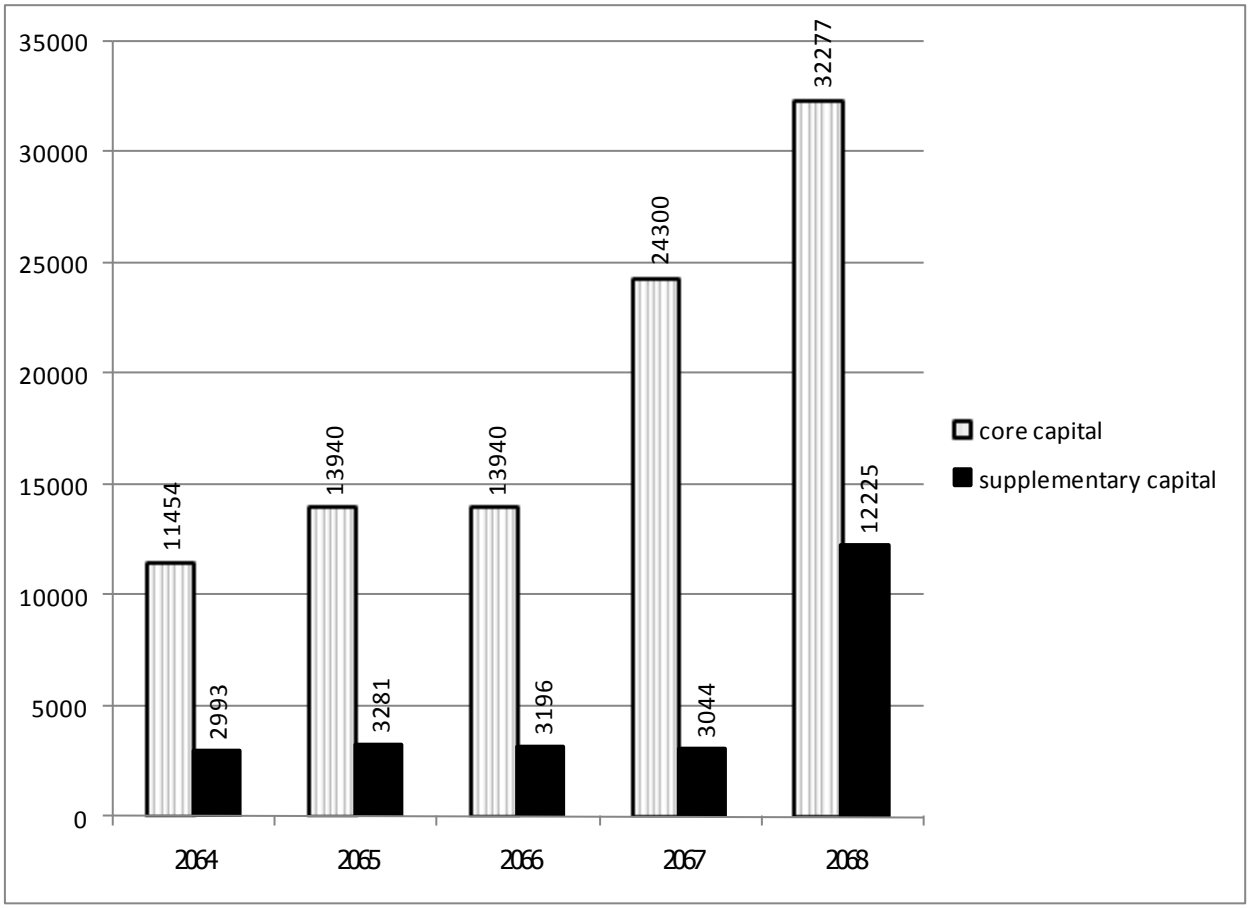
Fiscal year(End Ashadh)					
Banks/capital	**2064**	**2065**	**2066**	**2067**	**2068**
Nepal SBI Bank Limited					
Core Capital	**1145478649**	**1394064015**	**1692371238.20**	**2430021234**	**3227752169**
Supplementary Capital	**299321607**	**328122783**	**319666657**	**304425373**	**1222528450**
Total Capital (a+b)	**1444800256**	**1722186798**	**2012037895.2**	**2734446607**	**4450280619**
Kumari Bank Limited Bank					
Core Capital	**1019893000**	**1359032000**	**1612799000**	**1772135000**	**2204905000**
Supplementary capital	**95314000**	**499175000**	**438108000**	**443550000**	**251515000**
Total Capital (a+b)	**1115207000**	**1858207000**	**2050908000**	**2215685000**	**2456420000**
Nabil Bank Limited					
Core Capital	**1992849715**	**2363598989**	**3044340637**	**3667854525**	**4318697617**
Supplementary Capital	**314782680**	**635131175**	**682742150**	**722374082**	**854701575**
Total capital (a+b)	**2307632395**	**2998730164**	**3727082787**	**4390228607**	**5173399192**

In end of ashadh 2068 the Total Capital Fund of SBI is Rs.3226100448 which is positive figure and shown that there is sufficient capital to safe the depositor's deposit. The bank doesn't go to dissolve, the deposit of depositor are not collapsed because of there is on sufficient capital in bank to repay the deposit. And also the Kumari and Nabil Banks are in same condition with positive figure of Rs.2204905000 and 5173399192 respectively but the total capital fund of kumari Bank is less in respect of the total capital fund of SBI Bank and Nabil bank but, there is also sufficient capital in its account required by NRB directives.

The following figure has shown real situation and trend about the combination of core capital, supplementary capital during the study periods and we can analyze the figure.

Figure: 4.1

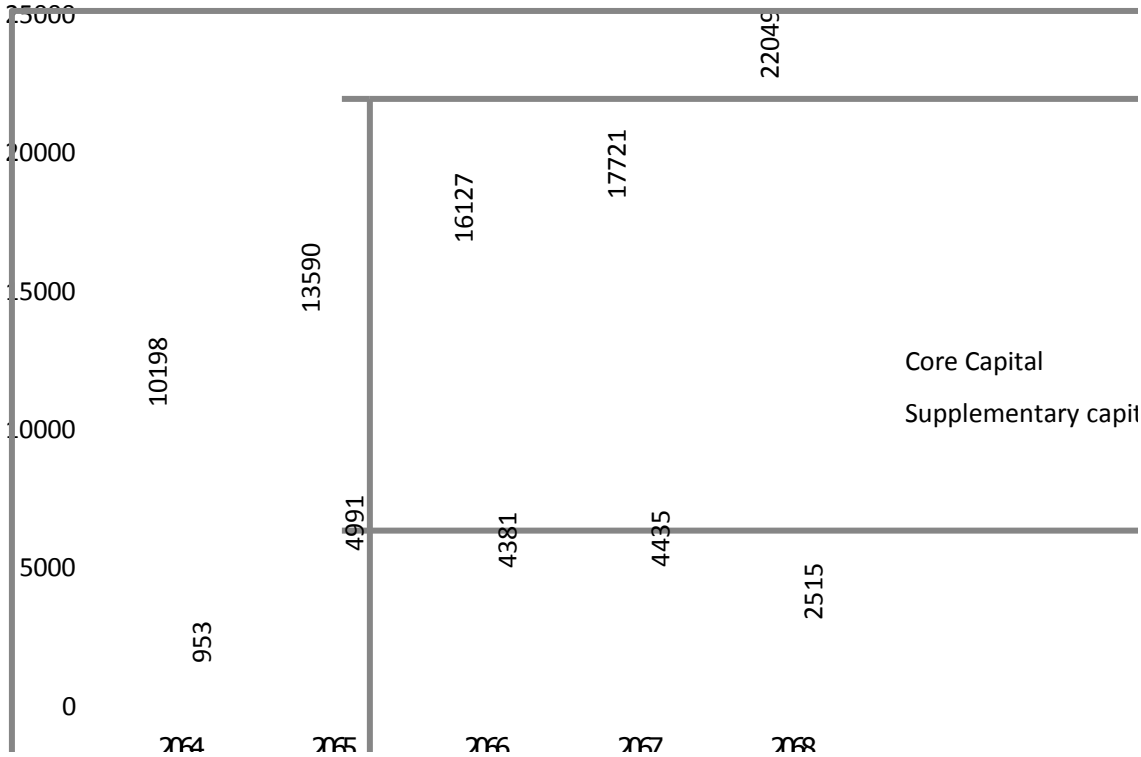
Capital Fund of Nepal SBI Bank Limited (in million)



In the study period, core capital of SBI is increasing in positive i.e. it is improving its core capital but supplementary capital is fluctuating it is in decreasing trend, its figure has shown that it is decreasing smoothly. At end of Ashadh 2066/067 it is in decreasing way. But at the current year the supplementary capital of the bank is increases. So, its capital fund is in fluctuating trend. so, this bank has to maintain perfect capital stability by increasing its core capital as well as supplementary capital.

Figure: 4.2

Capital Fund of Kumari Bank Ltd. (in million)

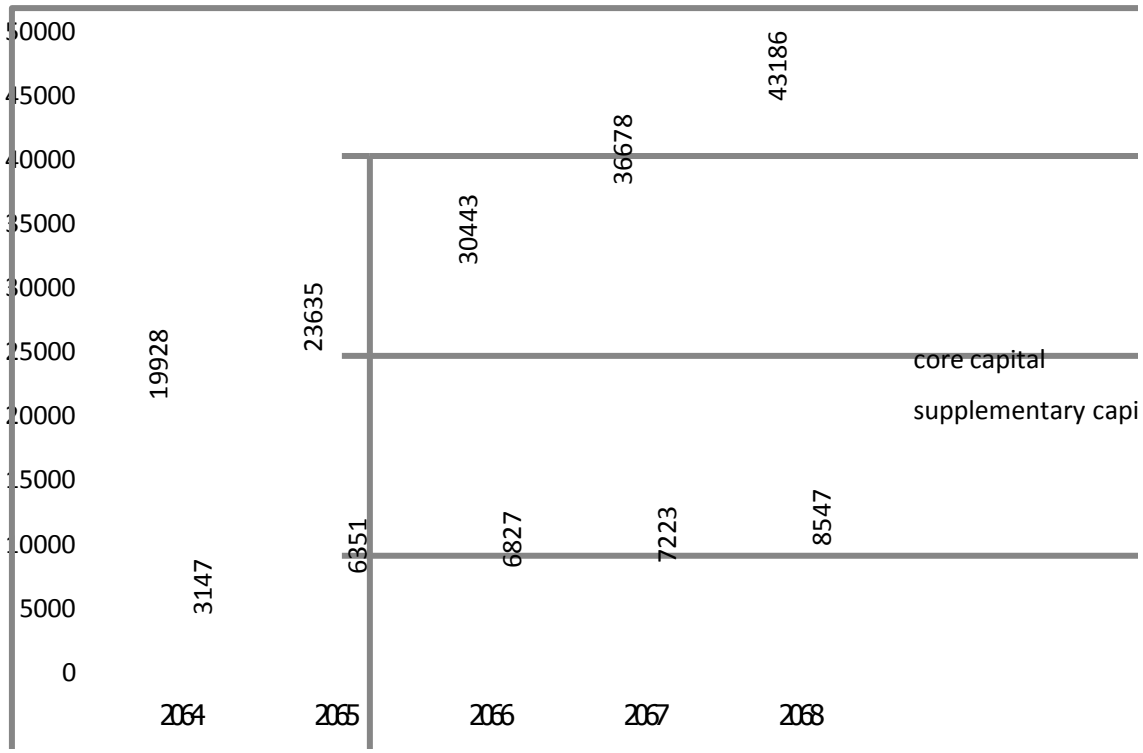


From above figure, the core capital of end ashadh 2064 2065 2066 2067 and 2068 is 1019893000, 1359032000, 1612799000, 1772135000 and 2204905000 respectively. The figure shows that the core capital of the bank is in the increasing trend means that there is sufficient core capital to save the depositors deposit. But the supplementary capital is 395314000, 499175000, 438108000, 352490000 and 251515000 respectively which means that it is fluctuating with huge amount it indicates that there is some

problem with the banking transactions the negative figure of supplementary capital can not safe the depositor deposit and the also creditors.

Figure: 4.3

Capital Fund of NABIL Bank Limited (in million)



The figure 4.3 shows the growing trend of the capital fund the bank during the study period. The trend shows that core capital and supplementary capital both are in increasing trend. As a result the capital is increased in their average ratio.

The increment in the capital fund shows that Nabil bank has been trying to increase its capital base to comply with the requirements of NRB as prescribed in capital Adequacy Norms for commercial banks. It can be calculated that core capital and supplementary capital both are in increasing trend.

4.1.2 Total Risk Weighted Exposures

Total risk weighted exposures is the summation of credit risk, operational risk, and market risk. And the credit risk is the sum of on-balance sheet items and off-balance sheet items. Credit risk, operational risk, and market risk are calculated by multiplying risk percentage under their risk nature followed by prescribed weight. Credit risk calls the Risk weighted Assets and previous year's capital adequacy ratio depends on only Credit risk i.e. RWA.

The Risk- Weighted Assets and Exposures of Study banks have been illustrated in table 4.2. The table shows Risk- Weighted Assets and Exposures all three of the banks over the study period i.e. since end of Ashadh 2064 to end Ashadh of 2068.

Table: 4.2

Risk-Weighted Exposures of Selected Banks over the Period

(Rs in NPR 1000)

Fiscal Years (End of Ashadh)					
Nepal SBI Bank LTD					
	2064	2065	2066	**6067**	2068
A.RWE For credit Risk	12786385	14565374	15904777	20580286	21421593
B.RWE for operational Risk	797561	867371	930991	11961198	12851395
C.RWE for Market Risk	564856	653267	36948	322956	359546
Total Risk Weighted Exposure(*A+B+C)*	14148803	16086013	16872717	22099362	34632534
KUMARI BANK LTD					
A.RWE For credit Risk	9895937	17255296	16983933	16257299	16145568
B.RWE for operational Risk	42176	656482	709435	909510	1099005
C.RWE for Market Risk	2365	45725	49811	53876	92294
Total Risk Weighted Exposure(*A+B+C)*	9940478	17957503	17743239	17220685	17336867
NABIL BANK LTD					
A.RWE For credit Risk	19166766	27010564	32500502	39016206	44468805
B.RWE for operational Risk	-	-	2264233	2706731	3383194
C.RWE for Market Risk	-	-	51764	99722	74441
Total Risk Weighted Exposure(*A+B+C)*	19166766	27010564	34816500	41822660	48884969

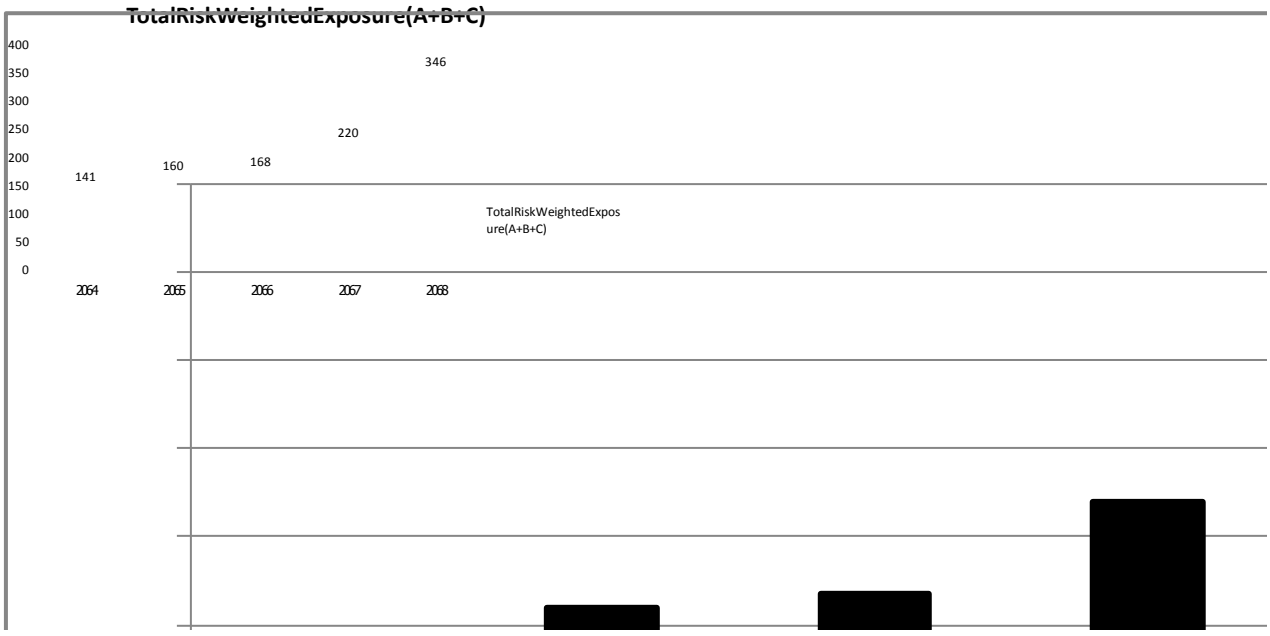
(Source: Annual Reports of NSBI, KBL and NABIL Bank Limited)

The TRWA as well as TRWE of SBI and NABIL have been increasing gradually in the study period but KBL's TRWE at end of 2066 has been declined than end of 2065, and similarly TRWE at end of ashadh 2067 has been declined than at end of 2066 and also decrease in current year in respect of previous year. The increasing of TRWA/TRWE indicates that there is more need of Total Capital Fund to maintain the required capital adequacy ratio. Also it indicates that either book value of risks (credit, operation, and market) increased or the multiplying factor risk weight is decreased i.e. more risked assets changed to less risked assets.

The following figure has shown the actual figure of Risk Weighted Assets/Exposures of selected banks separately during the study period. It makes easy to analyze and predict the real situation.

Figure: 4.4

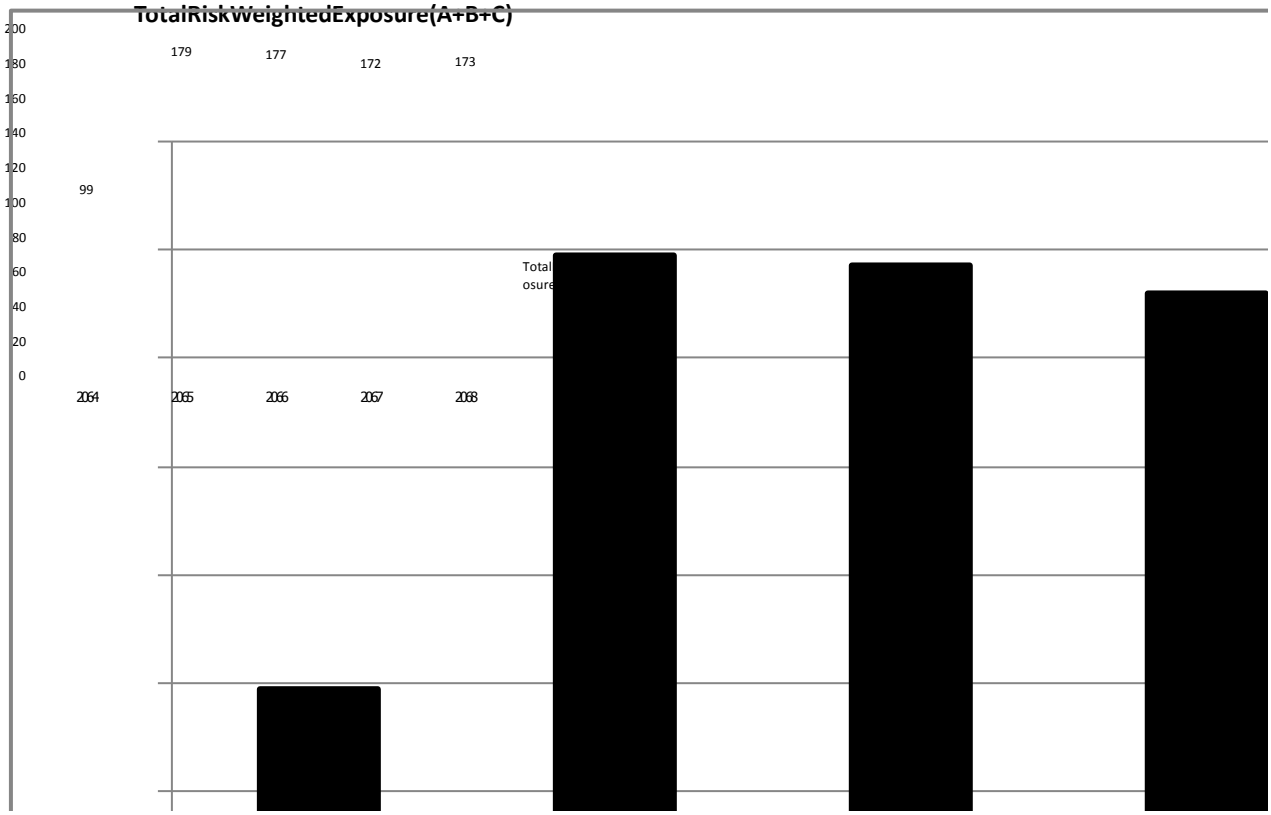
Total Risk Weighted Exposures of Nepal SBI Bank Limited(in million)



The figure 4.4 shows the increasing trend of TRWA/TRWE in during period from end of ashadh2064 to at end of ashadh 2068. The total risk weighted exposures of SBI has reached to Rs. to Rs.34632534000 from Rs.14148803000 since end of ashadh2068 to end ashadh of 2064. Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio prescribed by Capital Adequacy Framework of NRB. This can minimize the risk of depositors and creditors fund.

Figure: 4.5

Total Risk Weighted Exposures of Kumari Bank Ltd(in million)



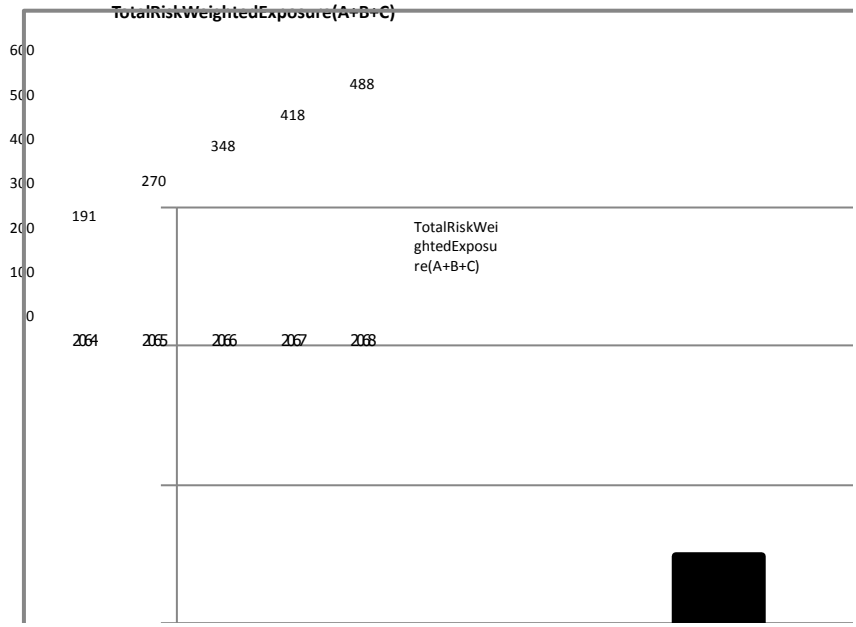
The figure 4.5 shows the fluctuating trend of TRWA/TRWE in during period from end ashadh 2064to end ashadh, 2068. The total risk weighted exposures of KBL has reached from Rs.17847236000 to Rs.17336867000 at end of2064 to end ashadh 2068. But TRWE of 2064 end ashadh to TRWE of end ashadh 2068 has drastically up because of increasing Operational Risk and Market Risk in end ashadh 2068.

Increasing of TRWE needs more Total Capital Found to maintain Capital Adequacy Ratio described by Capital Adequacy Framework of NRB and vice versa. This can minimize the risk of depositors and creditor fund.

In the study period of 2064 to 2068 end the TRWE has declined by huge amount because of changing credit risk. It can show that there is increased in on-balance sheet items and off-balance sheet items.

Figure: 4.6

Total Risk Weighted Exposures of NABIL Bank Limited (in million)



The figure 4.6 shows the increasing trend of TRWA/TRWE in during period at end of asadh 2064 to end of ashadh 2068. The total risk weighted exposures of NABIL Bank has reached from Rs.19, 166, 766,033 to Rs.48884969000 from end of ashadh 2064 to at end of ashadh 2068. In this period, the figure and table show that the gradually development of depositors and creditors and creditors fund.

Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio described by Capital Adequacy Framework of NRB. This can minimize the risk of depositors and creditors fund.

4.2 Ratio Analysis

The following ratios are used to evaluate the financial situation of study banks in regard of the capital adequacy and capital fund.

4.2.1 Capital Adequacy Ratio of Selected Banks

Capital Adequacy Ratio shows the strength of a bank. The calculation of Capital Adequacy Ratios has been presented in Appendix II. The calculated Capital Adequacy Ratio is shown in the Table 4.5 from the FY 2064/65 to current fourth year.

Table: 4.3

Capital Adequacy Ratio of Selected Banks over the Study Period

(Source: Appendix II)

Year(At end of Ashadh)	2064	2065	2066	2067	2068
Nepal SBI Bank Limited					
Tier 1 capital to Total Risk Weighted Exposures	10.53	9.97	10.03	10.89	9.32
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	13.29	12.32	11.92	12.25	12.85
Kumari Bank Ltd					
Tier 1 capital to Total Risk Weighted Exposures	10.26	9.43	9.09	9.87	12.35
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	11.22	12.89	11.56	12.34	13.76
NABIL Bank Limited					
Tier 1 capital to Total Risk Weighted Exposures	10.40	8.75	8.74	8.77	8.83
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	12.04	11.10	10.70	10.5	10.58

The Capital Adequacy Ratios shown that the bank has been able to comply with the requirements of NRB consistently. The minimum requirements of NRB were as follows:

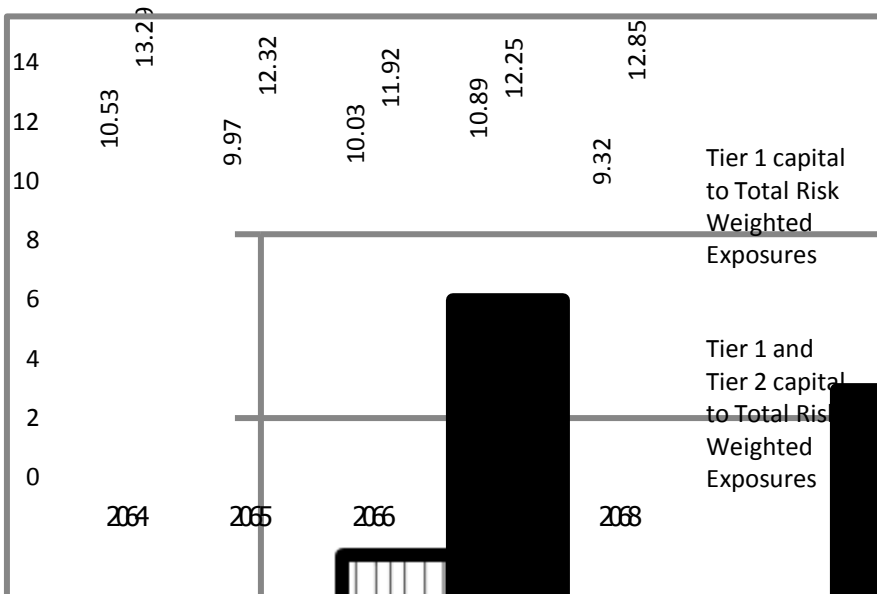
For FY 2063/64: Core Capital5.50% and Total 11% of TRWA

For FY 2064/65: Core Capital5.50% and Total 11% of TRWA
For FY 2065/66: Core Capital 6% and Total 10% of TRWE
For FY 2066/67: Core Capital 6% and Total 10% of TRWE
or FY 2067/68: Core Capital 6% and Total 10% of TRWE

Nepal Rastriya Bank revised the rate of capital adequacy time to time. For FY 2063/64 and FY 064/65, it was 11% of Total Risk Weighted Assets. But from 2065 Ashwin, it has applied Basel II principle, and need 10% Capital Adequacy Ratio on Total Risk Weighted Exposures. Total Capital Ratio declined by 1% but core capital ratio increased by. 5%. It shows, core capital is more important than supplementary capital. The latest policy needs core capital rather than supplementary because to keep sound financial transactions by making promoter responsible.

Figure: 4.7

Capital Adequacy Ratio Nepal SBI Bank Limited



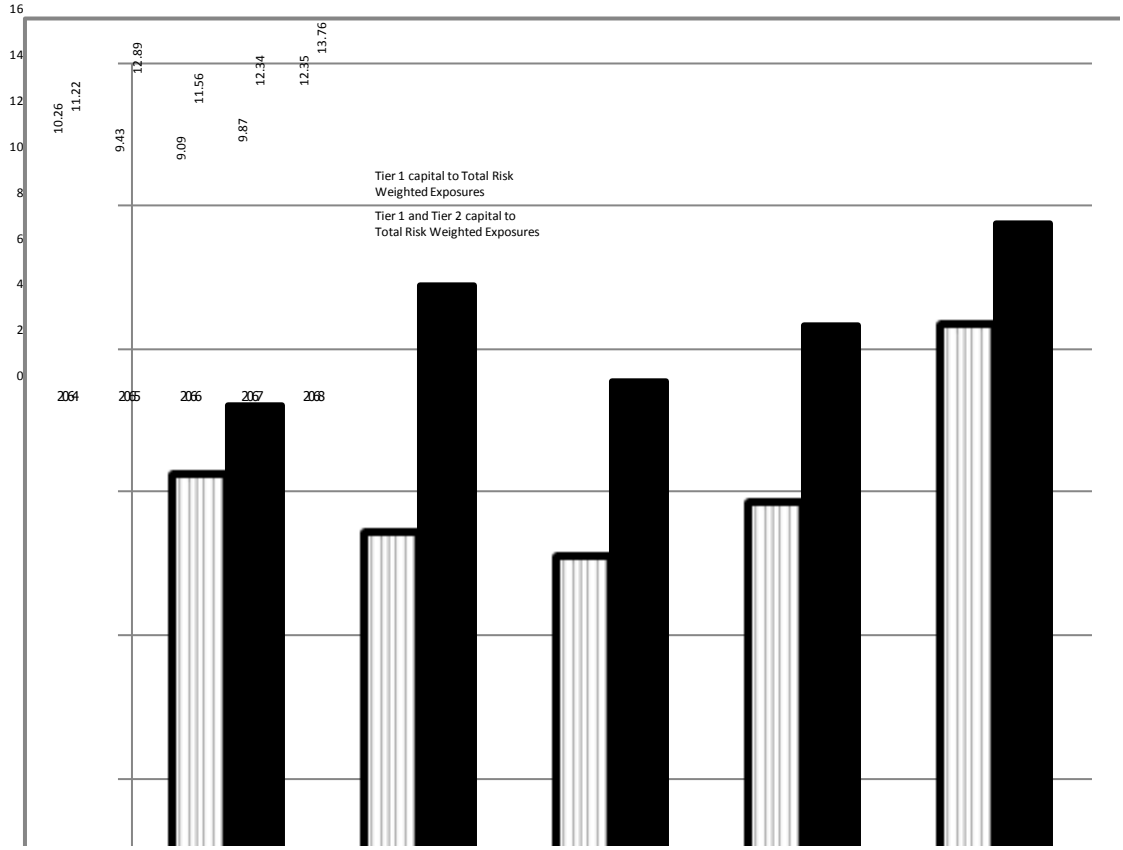
In order to see the impact of the directives on the various aspects of the bank, the same data has been used. The previous provisions of the directives has been applied to see the changes that occur in the outcomes The figure 4.7 displays the fluctuating situation of the Capital Adequacy Ratios of SBI in decreasing trend which shows that Nepal SBI Bank Limited has been improving its decreasing figure of capital adequacy ratio. Due

to the decreasing figure of core capital, the capital adequacy ratio is in decreasing figure. While the Tier 1 capital of a bank is minimum, the Tier 2 capital for regulatory purpose shall be considered as zero and hence the capital fund, in such cases shall be equal to the core capital.

Therefore, in this figure the Tire 1 capital to TRWE is equal to Tire 1and 2 capitals to TRWE. After the study of this data and minimum capital requirement, the bank has to increase its core capital to maintain minimum capital requirement.

Figure: 4.8

Capital Adequacy Ratio of kumara Bank Ltd.



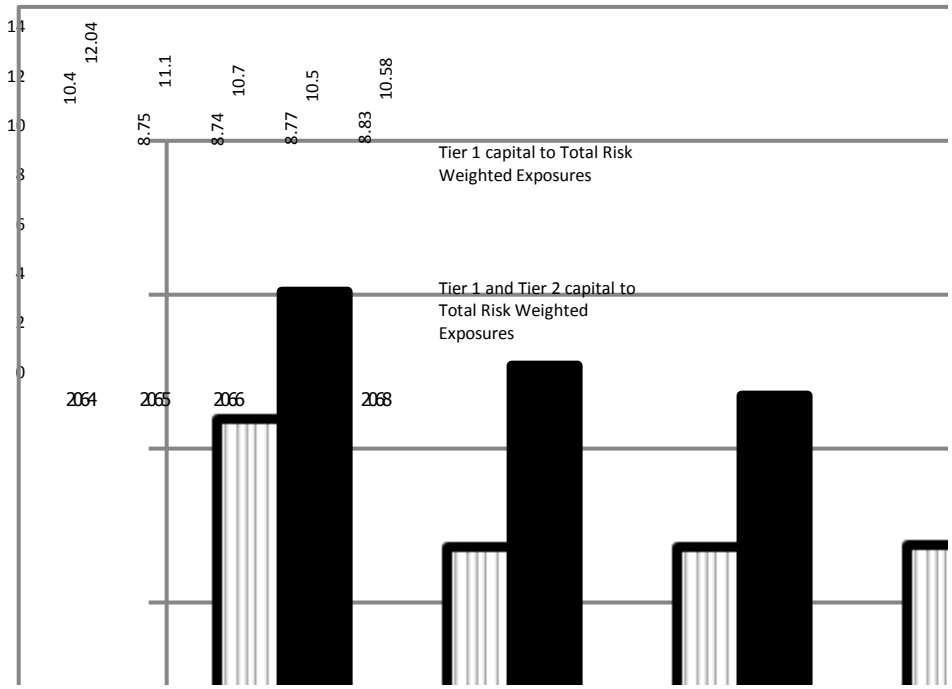
The figure 4.8 display the decreasing trend of the Capital Adequacy of KBL in decreasing figure which shows that KBL has been improving its decreasing figure of capital adequacy ratio from end of ashadh 2066 to end of ashadh 2067. But at end of ashadh 2068 shows that the trend has increased. It shows that there is some problems in banking to maintain capital adequacy ratio.

Due to the minimum figure of core capital, the capital adequacy ratio is in decreasing figure. While the Tier 1 capital of a bank is minimum, the Tier 2 capital for regulatory purposes shall be considered as zero and hence the capital fund, in such case shall be equal to the core capital.

Therefore, in this figure the Tier 1 capital to TRWE is equal to Tier 1 and 2 capitals to TRWE. After the study of this data and minimum capital requirement, the bank has to increase its core capital to maintain minimum capital requirement.

Figure: 4.9

Capital Adequacy Ratio of NABIL Bank Limited



The figure 4.9 displays the trend of the Capital Adequacy Ratios of NABIL Bank Limited which has been maintaining the minimum capital requirement.

This shows the competency of bank is to maintain the capital adequacy ratio direct by authorized body. The bank is very successful to maintain the capital adequacy ratio because there is nominal gap between bank's actual capital adequacy ratio and required

capital adequacy ratio. It explains the good combination of total capital fund and total risk weighted exposures. The banks' depositors and creditors safe either capital fund is high or risk exposure is low. Therefore, the portfolio of capital fund and risk weighted exposures is considerable to maintain the capital adequacy ratio.

4.3 Statistical Analysis

Statistical Analysis is carried out for better understanding of the collected data and information. The result of the statistical analysis is enumerated in the following section.

4.3.1 Correlation Coefficient

Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when changes in the value of one variable is accompanied by the change of another variable. For example, changes in the ratio of Capital Adequacy are associated with the change in Total Capital Fund and Total Risk Weighted Exposure. The correlation like regression shows the degree and direction of relationship between the variables but, unlike regression, it does not show the cause and effect relationship.

Table: 4.4

Correlation Co-efficient

Correlation between	**Values**		
	SBI	**KBL**	**NABIL**
CAR and Total Capital (r_{12})	0.1309397	0.721541	-0.918536
CAR and TRWE(r_{13})	0.127693	0.601448	-0.892996
Total Capital and TRWE(r_{23})	0.997719667	0.911553226	0.799572149
$R_{1.23}$	0.997507105	0.99970426	0.9949515
$R^2_{1.23}$	0.995020425	0.996253234	0.989928488

(Source: Appendix III*)*

The calculated correlation co-efficient of SBI between CAR and total Capital Fund is .13, CAR and TRWE is .12, and Total Capital and TRWE is approximately 1. These relation shows that the relationship between the given variables. This relationship

between calculated variable is perfect i.e. CAR increased due to the increasing total capital, and also TRWE and so on.

For Kumari Bank Limited, correlation coefficient shows that relationship between variable is significant but high for total capital and total risk weighted exposures. It explains the relationship between two variables which is calculated above and appendix.
The correlation coefficient between CAR and Total Capital is -.918, and CAR and TRWE is -.8929 for NABIL Bank. But correlation coefficient between Total Capital and TRWE is .799. It can say that Capital Adequacy Ratio changed that due to the change of both Total capital fund and total risk weighted exposures. The relationship of Capital Adequacy Ratio between total capital and total risk weighted exposures is high.

Here, the interpretation of correlation coefficient of given variables will be wrong because there are one dependent variable- capital adequacy ratio and two independent variables- total capital fund and total risk weighted exposures. Therefore, there is need of multiple correlation coefficients and its determination to predict their relationship.

SBI

Here, the determination of multiple correlation coefficients is approximately 1. This tells us that 100% of total variation in capital adequacy X_1 is due to the variable X_2 and X_3.

Kumari Bank Limited

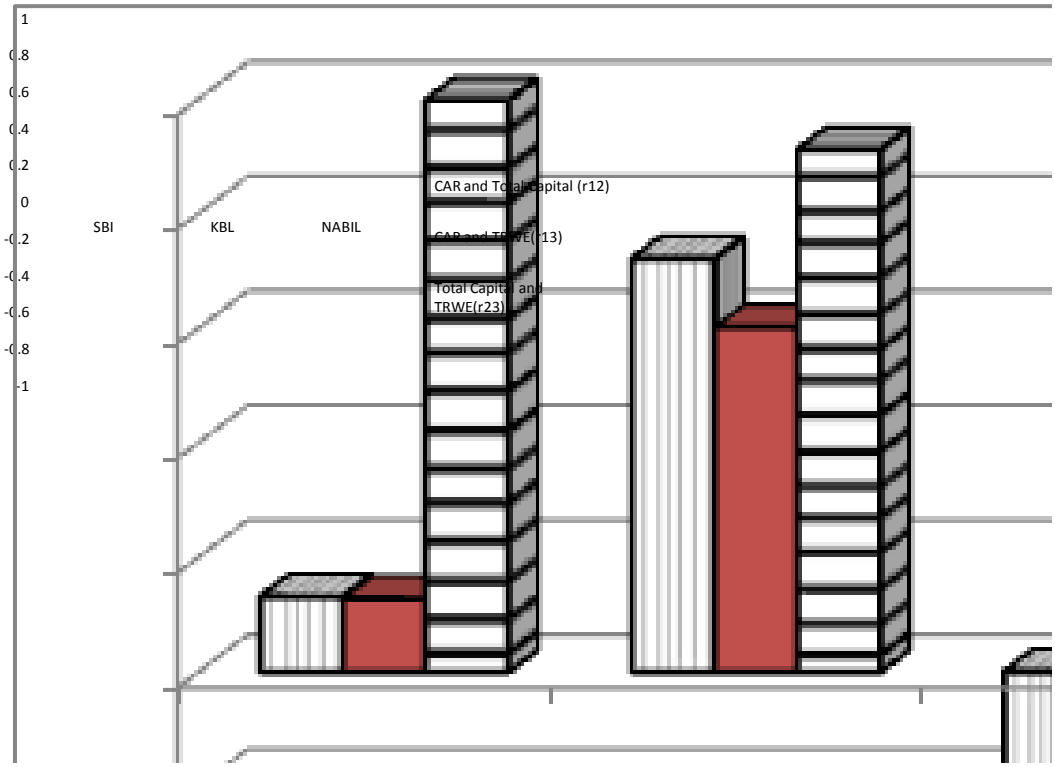
Here, the determination of multiple correlation coefficients is approximately 1. This tells us that 100% of total variation in capital adequacy X_1 is due to the variable X_2 and X_3.

NABIL Bank Limited

Here, the determination of multiple correlation coefficients is .99. This tells us that 99% of total variation in capital adequacy X_1 is due to the variable X_2 and X_3 and 1% is due to the other factor.

Figure: 4.10

Correlation Coefficient



4.4 Risk Percentage and Correlation Coefficient of Credit Risk

The exactly meaning of capital adequacy is bank must have adequate capital to invest depositor's deposit as a loan. The standard of NRB is 10% of total risk weighted exposures and Basel Standard is 8% of total risk weighted exposures. That is if the bank wants to invest one hundred rupees in riskier investment there must be at least ten

rupees of own money, remaining can be the depositors deposit or creditors loan or both.

The ratio of TRWE of Credit Risk and its Book Value represents the average risk of credit which indicates that how many risk in banking transaction. Nepal SBI Limited has around fifty percent, Kumari Bank has fluctuated in decreased in decreasing trend from 69 percent to 41 percent but NABIL Bank Limited has 57% for fiscal year 064/065 and 59% for 067/68. The commerce philosophy "More risks, more gains and no risks on gains" apply for lending deposit of bank's investment. But more risks need more capital under the capital adequacy framework. NRB says that, if bank wants to invest in riskier assets bank should have to maintain 6% core capital.

And also the correlation coefficient of Book Value of Credit Risk and its TRWE said that the relationship between these two variable. For Kumari Bank Limited, it has approximately 1 i.e. perfect correlation, for NABIL it has also 1. Perfect correlation but SBI Bank Limited, it has only 73% i.e. high, it has changed the investment portfolio. It is not significant that is can say the ratio of book value and TRWE declined due to the change of its investment portfolio.

4.5 Analysis of Survey of Capital Adequacy of Banks under Study

4.5.1 Study of Response of Officials of Selected Banks

Regarding the impact of capital adequacy norms, a simple questionnaire was developed as shown in Appendix I. A total number of twelve officials of related study banks participated in the queries. The questionnaire revealed the opinions that bank officials held towards the capital fund and capital adequacy. All the officials unanimously agreed that the central bank should issue capital adequacy norms for commercial banks. All respondents answered that an adequate capital fund will always help to safeguard the interest of depositors.

However, in some questions, the officials found to be disagreeing. Out of twelve, seven respondents answered that the capital adequacy ratio prescribed by NRB is

perfect while remaining answered that it is high. It seemed that officials are not quite satisfied with the prescribed capital adequacy ratio. Especially, the officials at Credit Department were unsatisfied because the norms have straight relation with flow of credit as it contains the major portion of the risk weighted assets and as such, the quality of the credit makes great difference in capital adequacy norms. This has created as a yardstick to measure the efficiency of the officials involved in credit flowing but has also provided a sense of fear to work freely. All the respondents said that it is necessary to bring changes in capital adequacy norms from time to time. Seven respondents answered that the weight age on risk weighted assets prescribed by NRB are just OK while others said that it needs revision. Officials of the bank had unanimous thoughts that they can increase both components of capital subsequently to cope up with the NRB requirements.

4.5.2 Study of Perception of Depositors on Commercial Banks

To study the perception of depositors a questionnaire was developed as shown in Appendix I. A total number of 50 depositors responded to the questionnaire. While responding to the why they deposit their money in a bank, 55.22% respondents answered that they deposit their money in a bank for security reason, 25.37% said that to earn interest, 8.96% deposits money to meet the official purpose. 4.48% were of the opinion that they deposit money in a bank for social status and 5.97% referred to other reasons. Out of the 50 respondents, 46.27% said that physical security arrangement of a bank is most important to make a depositor's money safe, 23.88% agreed that an adequate capital is required to make a depositor's money safe. 17.91% of the respondents opine that profitability of the bank is important whereas 11.94% referred to the status of the bank as most important. 41.79% respondents think that a bank should pay an attractive interest rate to attract more deposits, 17.91% urged to arrange proper security, 13.43% insist on to achieve a good profit. But only 16.42% advised to maintain adequate capital fund while the remaining 10.45% referred to other reasons that attract deposits to a bank.

4.5.3 Implementation status of the Directives given by NRB

Commercial banks of Nepal are bound by the NRB Directives and 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 meat the requirement of capital adequacy as stated by the directives. Capital adequacy is the portion of capital fund with regards to risk weighted assets/exposures that a commercial bank holds. Capital adequacy required to safeguard the money of the depositors as the banks are playing with the money they collected from the depositors.

As it is seen that among the analyzed all the banks have been able to meet it's capital adequacy ratio, but it is fluctuating year by year, so NRB nets to be practical while issuing to meet it's capital adequacy ratio, NRB most not make the rules taking into mind only the international standard but to combat these problems these directives must be issued after being proper research and consultation with different banking experts. They become irrelevant if they are not implemented.

The banks have been complying with the requirement of the capital adequacy norms of NRB. The banks have been increasing its capital fund to meet the capital adequacy requirements. The officials of the bank feel that NRB as central bank, should set the capital adequacy norms. They all agree that these norms are required to safeguard the interest of depositors.

NRB has removed the problems facing by the commercial banks by maintaining the effective banking, sufficient professionalism, perfect banking system etc.

4.6 Major Findings of the study

Capital adequacy framework has three pillars: the first pillar- minimum capital requirements, the second pillar- supervisory review process, and the third pillar- market discipline.

- The first pillar- all of the three banks i. e. SBI, KBL and Nabil maintained the minimum capital requirement. This indicates that they can secure the depositors' deposit.
- The second pillar- supervisory review process which has four principles:

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate bank's internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Here, Nepal Rastriya Bank is the supervisor of all banks and it follows the above explained principle to cope the capital need by total risk weighted exposures. The supervisory review process more needed for those banks who can not maintain the required capital fund and supervisor should take corrective actions to these banks. Principle 2 explains, supervisors should take appropriate supervisory actions if they are not satisfied with the result of this process but in study the core capital of Government's own bank has negative i.e. without investing capital government has been operating banks, and its body, supervisors of banks- NRB needs core capital 6% of total risk weighted exposures. And all of the three banks i.e. Nabil Bank Limited, SBI and Kumari bank Ltd have sufficient capital fund. Government does not want to do better but taught do better. The question arises how can worse teach better? The

Nabil's capital adequacy ratio is fluctuated which indicated it is not operated smoothly. The multiple correlation coefficient and its determination is satisfactory, it is perfectly 1.

- The third pillar, the market discipline, the purpose of pillar 3- market discipline is to complement the minimum capital requirements (Pillar1) and the supervisory review process (Pillar2). The committee aims to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution. The Committee believes that such disclosures have particular relevance under the Framework, where reliance on internal methodologies gives banks more discretion in assessing capital requirements. In principle, banks' disclosures should be consistent with how senior management and the board of directors assess and manage the risks of the bank. Under Pillar 1, banks use specified approaches/methodologies for measuring the various risks they face and the resulting capital requirements. The Committee believes that providing disclosures that are based on this common framework is an effective means of informing the market about a bank's exposure to those risks and provide a consistent and understandable disclosure framework that enhances comparability.
- Market discipline related with the qualified manpower of bank. For examples the disclosures requirements need the competency of bank officials. And the publishing of disclosures in website will be valuable if the stakeholders read and analyze the banks. Public have no idea about what is capital adequacy. Capital adequacy determines the market price of share but public did not know about this. Therefore, study has not satisfied because Nepalese baking sector have not sufficient knowledge about the market discipline. Capital adequacy framework needs the disclosures publishing in website.
- From primary data analysis, it is shown that the majority of the respondents have shown satisfaction on the supervision made by NRB on the commercial banks. And some of the respondent has shown that the existing rate on core

capital adequacy ratio, i.e. 6% as directed by NRB, should be reduced for its appropriateness.

- The majority of the respondents have strongly supported the existing capital adequacy rate, which has been effective from the fiscal year 2008/09, by NRB. And some of the respondents have affirmed that the capital adequacy framework should more focus on ensuring the protection of depositors and creditors.
- Also, the respondents have stated that comprehensive risk management policy is the main perquisite for the effective implementation of capital adequacy ratio.
- Some of the respondents have said that CAR should cover credit concentration risk most than others.
- Majority of the respondents have opined that CAR is most significant in strengthening the risk management of the banks. And some of the respondents have affirmed that comprehensive assessment of risk is the most crucial in internal capital adequacy assessment process.
- All these banks have to make its internal Audit and Inspection Department stronger, so that the directives are properly implemented keeping into mind that the violation of rules of directives have chances to pay penalties which may lead to unfavourable concequences.
- As it is seen that among the analyzed all the banks have been able to meet its capital adequacy ratio, it is fluctuating year by year, so NRB needs to be practical while issuing to meet its capital adequacy ratio, NRB most not make the rules taking into mind only the international standard but to combat these problems. These directives must be issued after being proper research and consultation with different banking experts. They become irrelevant if they are not implemented.
- It is observed that the banks have been complying with the requirement of the capital adequacy norms of NRB. The banks have been increasing its capital fund to meet the capital adequacy requirement. The officials of the bank feel that NRB as central bank, should set the capital adequacy norms. The all agree that these norms are required to safeguard the interest of depositors. The officials are not quite convinced with the prescribed ratios. Some of them say

that the ratio is reasonable and some say that it is not perfect. However, the majority of them opine that these norms are acceptable.

- The banks have been complying with the requirement of the capital adequacy norms of NRB. The banks have been increasing its capital fund to meet the capital adequacy requirements. The officials of the bank feel that NRB as central bank should set the capital adequacy norms. They all agree that these norms are required to safeguard the interest of depositors.
- Banks are following directives but in cases of supplementary capital these has been a short fall in study period which can be compensated by the excess amount of core capital in supplementary capital.
- Among these three banks, they have to increase their supplementary capital to meet the standard of supplementary capital ratio of 4% of TRWE directed by the NRB.

Basically, capital adequacy requirements have two effects on risk taking incentives. First, they influence the marginal costs of taking risk. The tighter the requirements, the lower the profits in case of success and the less a bank has to lose if it defaults. Since the marginal costs of taking risks are those profits times the decrease in the probability of success, a higher requirement tends to increase risk.

Second, capital rules affect the marginal return of taking risk. Here, the actual effect depends crucially on the regime we are in. if the regulation is only binding in the first period, marginal returns on taking risks are reduced. Increasing risk raises the rate of return in case of success. The gain from such an increase is proportional to the amount invested at this rate of return. Under a binding requirement the amount that can be invested is a multiple of the given value of equity. The tighter the regulation, the lower is this multiple. Therefore, a stricter regulation today tends to reduce risk.

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 SBI Bank Limited, Kumari Bank Limited 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 SBI Bank Limited, Kumari Bank Limited and NABIL Bank Limited. The study showed that the capital adequacy requirement and its affect in banking system. Total capital fund of all the bank under study is sufficient prescribed by NRB. This means all three banks save

the depositors deposits. 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 SBI Bank Limited is 13.29, 12.32, 11.92, 12.25, and 12.85 at the end of ashadh 2064, 2065, 2066, 2067 and 2068 respectively. For Kumari Bank the CAR is 11.22, 12.89, 11.56, 12.34, and 13.76 at the end of ashadh 2064, 2065, 2066, 2067 and 2068 respectively. NABIL has also maintained the capital adequacy ratio prescribed by NRB 12.04% at end of ashadh 2064 followed 11.00% requirements and 10.58% at end of ashadh 2068 followed 10% requirements.

The correlation coefficient of Capital Adequacy Ratio, Total Capital Fund, and Total Risk Weighted Exposures are significant for Kumari Bank Limited, but not for SBI. And also 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.

From the primary data analysis, it can be inferred that the bank's personnel are satisfied with the supervision, both onsite and offsite of NRB. However they are in the opinion of having deducted ratio for CCAR and the CAR as well. Also, it can be concluded that the CAR should mainly focus on ensuring the protection of the depositors and creditors. In addition, to have effective implementation of capital adequacy framework, the bank needs to have comprehensive risk management policy

as the perquisite. And, the CAR should cover the credit concentration risk mainly and should be significant in strengthening the risk management of banks. Beside these, it can be concluded that comprehensive assessment of risk is the most crucial component of the internal capital adequacy assessment process.

Commercial banks of Nepal are bound by the NRB Directives and 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 meat the requirement of capital adequacy as stated by the directives. Capital adequacy is the portion of capital fund with regards to risk weighted assets/exposures that a commercial bank holds. Capital adequacy required to safeguard the money of the depositors as the banks are playing with the money they collected from the depositors.

As it is seen that among the analyzed all the banks have been able to meet it's capital adequacy ratio, but it is fluctuating year by year, so NRB nets to be practical while issuing to meet it's capital adequacy ratio, NRB most not make the rules taking into mind only the international standard but to combat these problems these directives must be issued after being proper research and consultation with different banking experts. They become irrelevant if they are not implemented.

The thesis has been prepared with the study of capital funds of SBI, Kumari 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 all the three Banks have sufficient fund prescribed by NRB secure depositor deposit has sufficient fund prescribed by NRB. Risk Weighted Exposures has been increasing over the study almost all sample banks.

The correlation coefficient of capital adequacy ratio and total capital, CAR and TRWE and total capital and TRWE are significant for NABIL Bank and Kumari Bank Ltd but not for the SBI. So, SBI has to improve its total capital and total risk weighted exposure.

In conclusion, all of the three banks under study have sufficient capital to save the depositor deposit. Among these three banks Kumari Bank is superior one.

5.3 Recommendations

The newly issued directives by NRB have certain changes in its provision. Its main objectives are to protect the depositors and to uplift the banking system in Nepal to the international standards, Directives issued by the NRB are very important to build not only the commercial banking in Nepal but also country's economic stability.

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 Kumari Bank Ltd and NABIL Bank Ltd. can maintain their capital adequacy ratio by keeping perfect correlation coefficient between Total Capital Fund and TRWE. But SBI has improved it slightly.
- The capital adequacy frameworks have many problems in Nepalese banking sector. Poor banking system, lack of professionalism, imperfect banking system are important problems. Nepal Rastriya 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.
- As it is seen that among the analyzed all the banks have been able to meet its capital adequacy ratio, it is fluctuating year by year, so NRB needs to be practical while issuing to meet its capital adequacy ratio, NRB most not make the rules taking into mind only the international standard but to combat these problems. These directives must be issued after being proper research and consultation with different banking experts. They become irrelevant if they are not implemented.

- It is observed that the banks have been complying with the requirement of the capital adequacy norms of NRB. The banks have been increasing its capital fund to meet the capital adequacy requirement. The officials of the bank feel that NRB as central bank, should set the capital adequacy norms. The all agree that these norms are required to safeguard the interest of depositors. The officials are not quite convinced with the prescribed ratios. Some of them say that the ratio are reasonable and some say that it is not perfect. However, the majority of them opine that these norms are acceptable.
- Banks are following directives but in cases of supplementary capital these has been a short fall in study period which can be compensated by the excess amount of core capital in supplementary capital.
- Among these three banks, they have to increase their supplementary capital to meet the standard of supplementary capital ratio of 4% of TRWE directed by the NRB.
- 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.

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APPENDIX – I

QUESTIONNAIRE

Dear sir/Madam,

In order to meet the partial requirement for the fulfillment of master's Degree of Tribhuvan University, I am doing research in titled," Comparative analysis of capital adequacy of commercial banks with reference to SBI, Kumari and Nabil Bank Limited." So in order to achieve the objective of study. I humbly request you to fill up the below questionnaire.

Respondents;

(a) Name (optional): …….. (b)Position: ……..

(c)Bank: ……

Please tick out the appropriate answer choice;

1. Why do you deposit your money in a bank?

   a) Security motive b) To earn interest
   c) Social Status d) Other reason

2. Is the Capital adequacy norms perfectly prescribe by NRB?

   a) Yes b) No c) Don't know.

3. Are you satisfied with the supervision of NRB for your bank?

   a) Yes b) No c) Don't know.

4. The minimum core capital adequacy ratio (CCAR) directed by NRB is 6% in your view, what should be such rate?

   a) Below 6% b) exactly 6% c) above 6%.

5. The minimum capital adequacy ratio (CAR) as per Basel II is 8% however, NRB has directed it to be 11% till 2064/2065 and 10% from 2065/2066 in your opinion what should be the ratio?

   a) Exactly 8% b) exactly 10% c) exactly 11%

6. The capital adequacy frame work should ensure mainly which of the following?

   a) Adequate to protect Depositors and creditors

   b) Commensurate with the risk associated activities

   c) Promote public confidence in the banking system

7. The capital adequacy ratio frame work should cover mainly which of the following risk?

   a) Credit concentration
   b) Business and strategic risk
   c) Business cycle effect

8. What should be the main perquisite for effective implementation of CAR frame work?

   a) Implementation of Basel core principles for effective Banking Supervision
   b) Adoption of the sound practices for the management of operational risk
   c) Formulation and adoption of comprehensive risk management policy

9. Besides addressing the increased risk confronting the bank, the CAR framework should significant mainly for which of the following?

   a) Strengthening risk management
   b) Strengthening the level of the provision and reserves
   c) Improving the internal controls

10. Which of the following components of internal capital adequacy assessment process is the most important to have sound capital management?

   a) Board and senior management oversight
   b) Sound capital assessment
   c) Comprehensive assessment of risk

APPERNDIX-II

Capital Adequacy Ratio of Selected Banks over the Study Period

Year(At end of Ashadh)	2064	2065	2066	2067	2068
Nepal SBI Bank Limited					
Tier 1 capital to Total Risk Weighted Exposures	10.53	9.97	10.03	10.89	9.32
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	13.29	12.32	11.92	12.25	12.85
Kumari Bank Ltd					
Tier 1 capital to Total Risk Weighted Exposures	10.26	9.43	9.09	9.87	12.35
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	11.22	12.89	11.56	12.34	13.76
NABIL Bank Limited					
Tier 1 capital to Total Risk Weighted Exposures	10.40	8.75	8.74	8.77	8.83
Tier 1 and Tier 2 capital to Total Risk Weighted Exposures	12.04	11.10	10.70	10.5	10.58

Where,

$$CAR = \frac{total\ capital\ fund}{TRWE}$$

Total capital fund = core capital + supplementary capital

TRWE = credit risk + operational risk + market risk

APPENDIX-III

Calculation of correlation coefficient between CAR and TC of SBI

Year	$\mathbf{X_1}$	$\mathbf{X_2}$	$\mathbf{x_1}$	$\mathbf{x_2}$	$\mathbf{x_1^2}$	$\mathbf{x_2^2}$	$\mathbf{x_1.x_2}$
2064	13.29	13.63	0.79	-6.37	0.6241	40.58	5.0323
2065	12.32	15.49	-0.18	-4.51	0.0324	20.34	0.8118
2066	11.92	16.25	-0.58	-3.75	0.3364	14.06	2.175
2067	12.25	21.29	-0.25	1.29	0.0625	1.66	-0.3225
2068	12.85	33.35	0.35	13.35	0.1225	178.22	4.6375
Total					**1.1779**	**254.8625**	**2.2695**

Where,

$$x1 = \frac{\sum X1}{N}$$

$$x2 = \frac{\sum X2}{N}$$

$$r = \frac{\sum x1x2}{\sqrt{\sum x12}\sqrt{\sum x22}}$$

$$= \frac{2.2695}{\sqrt{1.1779}\sqrt{254.8625}} = 0.1309397$$

Calculation of correlation coefficient between CAR and TC of Kumari Bank Ltd.

Year	$\mathbf{X_1}$	$\mathbf{X_2}$	$\mathbf{x_1}$	$\mathbf{x_2}$	$\mathbf{x_1^2}$	$\mathbf{x_2^2}$	$\mathbf{x_1.x_2}$
2064	11.22	11.5	-1.13	-8.5	1.2769	72.25	9.605
2065	12.89	19.2	0.54	-0.8	0.2916	0.64	-4.32
2066	11.56	21.1	-0.79	1.1	0.6241	1.21	-0.869
2067	12.34	22.8	-0.01	2.8	0.0001	7.84	-0.028
2068	13.76	25.4	1.41	5.4	1.9681	29.16	7.614
Total					**4.1808**	**111.1**	**15.89**

Where,

$$x1 = \frac{\sum X1}{N}$$

$$x2 = \frac{\sum X2}{N}$$

$$r = \frac{\sum x1x2}{\sqrt{\sum x12}\sqrt{\sum x22}}$$

$$= \frac{15.89}{\sqrt{4.1808}\sqrt{111.1}} = 0.721541$$

Calculation of correlation coefficient between CAR and TC of Nabil Bank Ltd.

Year	**X_1**	**X_2**	**x_1**	**x_2**	**x_1^2**	**x_2^2**	**$x_1.x_2$**
2064	12.04	12.35	1.04	-7.65	1.0816	58.5225	-7.956
2065	11.10	16.13	0.1	-3.87	0.01	14.9769	-0.387
2066	10.70	19.90	-0.3	-0.1	0.09	0.01	0.03
2067	10.5	23.66	-0.5	3.66	0.25	13.3956	-1.83
2068	10.58	27.96	-6.42	7.96	0.1764	63.3616	3.3432
Total					**1.608**	**135.2897**	**-13.5462**

Where,

$$x1 = \frac{\sum X1}{N}$$

$$x2 = \frac{\sum X2}{N}$$

$$r = \frac{\sum x1x2}{\sqrt{\sum x12}\sqrt{\sum x22}}$$

$$= \frac{-13.5462}{\sqrt{1.608}\sqrt{135.2897}} = - 0.918536$$

Calculation of correlation coefficient between CAR and TRWE of SBI

Year	$\mathbf{X_1}$	$\mathbf{X_3}$	$\mathbf{x_1}$	$\mathbf{x_3}$	$\mathbf{x_1^2}$	$\mathbf{X_3^2}$	$\mathbf{x_1.x_3}$
2064	13.29	13.4	0.79	-6.6	0.6241	43.56	-5.214
2065	12.32	15.5	-0.18	-4.5	0.0324	20.25	0.81
2066	11.92	16.3	-0.58	-3.7	0.3364	13.69	2.146
2067	12.25	21.1	-0.25	1.1	0.0625	1.21	-0.275
2068	12.85	33.7	0.35	13.7	0.1225	187.69	4.795
Total					**1.1779**	**266.40**	**2.262**

Where,

$$x1 = \frac{\sum X1}{N}$$

$$x3 = \frac{\sum X3}{N}$$

$$r = \frac{\sum x1x3}{\sqrt{\sum x12}\sqrt{\sum x32}}$$

$$= \frac{2.262}{\sqrt{1.1779}\sqrt{266.40}} = 0.127693$$

Calculation of correlation coefficient between CAR and TRWE of Kumari bank Ltd.

Year	$\mathbf{X_1}$	$\mathbf{X_3}$	$\mathbf{x_1}$	$\mathbf{x_3}$	$\mathbf{x_1^2}$	$\mathbf{X_3^2}$	$\mathbf{x_1.x_3}$
2064	11.22	12.3	-1.13	-7.7	1.2769	59.29	8.701
2065	12.89	22.5	0.54	2.5	0.2916	6.25	1.35
2066	11.56	322.1	-0.79	2.1	0.6241	4.41	-1.659
2067	12.34	21.5	-0.01	1.5	0.0001	2.25	-0.015
2068	13.76	21.6	1.41	1.6	1.9881	2.56	2.256
Total					**4.1808**	**74.76**	**10.633**

Where,

$$x1 = \frac{\sum X1}{N}$$

$$x3 = \frac{\sum X3}{N}$$

$$r = \frac{\sum x1x3}{\sqrt{\sum x12}\sqrt{\sum x32}}$$

$$= \frac{10.633}{\sqrt{4.1808}\sqrt{74.76}} = 0.601448$$

Calculation of correlation coefficient between CAR and TRWE of Nabil Bank Ltd.

Year	$\mathbf{X_1}$	$\mathbf{X_3}$	$\mathbf{x_1}$	$\mathbf{x_3}$	$\mathbf{x_1^2}$	$\mathbf{X_3^2}$	$\mathbf{x_1.x_3}$
2064	12.04	11.05	1.04	-8.95	1.0816	80.1025	-9.308
2065	11.10	15.70	0.1	-4.3	0.01	18.49	-0.43
2066	10.70	20.35	-0.3	0.35	0.09	0.1225	-0.105
2067	10.5	24.42	-0.5	4.42	0.25	19.5364	-2.21
2068	10.58	28.48	-0.42	8.48	0.1764	71.9104	-3.5616
Total					**1.608**	**190.1618**	**-15.6146**

Where,

$$x1 = \frac{\sum X1}{N}$$

$$x3 = \frac{\sum X3}{N}$$

$$r = \frac{\sum x1x3}{\sqrt{\sum x12}\sqrt{\sum x32}}$$

$$= \frac{15.6146}{\sqrt{1.608}\sqrt{190.1618}} = -0.892926$$

Calculation of correlation coefficient between TC and TRWE of SBI

Year	$\mathbf{X_2}$	$\mathbf{X_3}$	$\mathbf{x_2}$	$\mathbf{x_3}$	$\mathbf{x_2^2}$	$\mathbf{X_3^2}$	$\mathbf{x_2.x_3}$
2064	1444.8	14148.8	-1027.75	-6619.08	1056265.9	43812246.52	6802748.29
2065	1721.2	16086.01	-751.35	-4681.87	564523.82	21919925.42	3517715.16
2066	2012.04	16872.7	-460.51	-3895.18	212067.62	15172442.81	1793762.47
2067	2734.4	22099.4	261.852	1331.52	68566.47	1772940.18	348660.65
2068	4450.3	34632.5	1977.75	13864.62	3915502.97	192227632.3	27420775.98
Total					**5812926.779**	**274905187.2**	**39883862.55**

Where,

$$x1 = \frac{\sum X2}{N}$$

$$x3 = \frac{\sum X3}{N}$$

$$r = \frac{\sum x2x3}{\sqrt{\sum x22}\sqrt{\sum x32}}$$

$$= \frac{39883862.55}{\sqrt{5812926.779}\sqrt{274905187.2}} = 0.997719667$$

Calculation of correlation coefficient between TC and TRWE of Kumari Bank Ltd.

Year	**X_2**	**X_3**	**x_2**	**x_3**	**x_2^2**	**X_3^2**	**$x_2.x_3$**
2064	1115	9940	-824	-6100	678976	37210000	5026400
2065	1858	17957	-81	1917	6561	3674889	155277
2066	2051	17743	112	1703	12544	2900209	190736
2067	2216	17221	277	1181	76729	1394761	327137
2068	2456	17337	517	1297	267289	1682209	670549
Total					**1042099**	**46862068**	**6370099**

Where,

$$x1 = \frac{\sum X2}{N}$$

$$x3 = \frac{\sum X3}{N}$$

$$r = \frac{\sum x2x3}{\sqrt{\sum x22}\sqrt{\sum x32}}$$

$$= \frac{6370099}{\sqrt{1042099}\sqrt{46862068}} = 0.911553226$$

Calculation of correlation coefficient between TC and TRWE of Nabil Bank Ltd.

Year	X_2	X_3	x_2	x_3	x_2^2	X_3^2	$x_2.x_3$
2064	2308	19167	-1411	-15166	1990921	230007556	21399226
2065	2999	27011	-720	7322	518400	53611684	-5271840
2066	3727	34816	8	483	64	233289	3864
2067	4390	41823	671	7490	450241	56100100	5025790
2068	5173	48850	1454	14517	2114116	210743289	21107718
Total					**5073742**	**550695918**	**42264758**

Where,

$$x1 = \frac{\sum X2}{N}$$

$$x3 = \frac{\sum X3}{N}$$

$$r = \frac{\sum x2x3}{\sqrt{\sum x22}\sqrt{\sum x32}}$$

$$= \frac{42264758}{\sqrt{5073742}\sqrt{550695918}} = 0.7995721492$$