NRB DIRECTIVES ON CAPITAL ADEQUACY

A Case Study of NIC Bank

A Thesis

Submitted by:

Anjila Shrestha

Patan Multiple Campus

Patan Dhoka, Lalitpur

Campus Roll No. 60/065

TU. Reg. No. 7-2-258-6-2005

Submitted to:

Office of the Dean

Faculty of Management

Tribhuvan University

In the partial fulfillment of the requirement for the degree of

Master of Business Studies (M.B.S)

Lalitpur, Nepal

March, 2013

RECOMMENDATION

This is to Certify that the thesis

Submitted by:

Anjila Shrestha

Entitled:

"NRB Directives on Capital Adequacy – A Case Study of Nepal Industrial and Commercial Bank Limited."

has been prepared as approved by this Campus in the prescribed format of the Faculty of Management, Tribhuvan University. This thesis is forwarded for examination.

………………………..	………………………..	………………………..
Dr. Narayan Prasad Maharjan	**Mr. Dinesh Man Malego**	**Mr. Babu Ram Singh Thapa**
(Thesis Supervisor)	**(Co-ordinator, MBS Program)**	**(Assistant Campus Chief)**

Date: ……………………

VIVA-VOCE SHEET

We have conducted the Viva-voce examination of the thesis

Submitted by:
Anjila Shrestha

Entitled:
"NRB Directives on Capital Adequacy– A Case Study of Nepal Industrial and Commercial Bank Limited."

and found that the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for the Degree of Master of Business Studies (M.B.S).

Viva-Voce Committee:

Head, Research Department: --------------------------------------

Member (Thesis Supervisor): --------------------------------------

Member (External Expert): --------------------------------------

Date:…………………...

DECLARATION

I hereby declare that the work reported in this thesis entitled, **"NRB Directives on Capital Adequacy – A Case Study of Nepal Industrial and Commercial Bank Limited."** submitted to the Office of Dean, Faculty of Management, Tribhuvan University, is my original work. It is done in the form of partial fulfillment of the requirement for the Degree of Master of Business Studies (M.B.S.) under the supervision and guidance of Associate Professor **Dr. Narayan Prasad Maharjan** of Patan Multiple Campus, Lalitpur.

Anjila Shrestha
(Researcher)
Patan Multiple Campus
Campus Roll No.: 60/065
TU. Reg. No. : 7-2-258-6-2005

Date:……………………

ACKNOWLEDGEMENT

I express my insightful deep appreciation to my respected teacher and thesis supervisor Associate Professor Dr. Narayan Prasad Maharjan of Patan Multiple Campus, T.U., for his valuable comments with continuous guidance and kind support to me for this thesis.

I would like to express my gratitude to teachers, administrative staff and all the staff of Patan Multiple Campus library who were very supportive and helpful to me.

I also be obligated an indebtedness to all authors whose writings have provided me the necessary guidance and invaluable materials for enriching my research paper in all possible ways. I am also gratefully indebted to all the staff of Nepal Industrial and Commercial Bank for providing required data and information. Likewise, all the respondents are thankful for their suggestion and responding my questionnaires.

I want to express my sincere thanks to some of my friends for their insightful suggestions, co-operation, inspiration and encouragement.

Needless to say "to err in human" and I cannot be the exception for any remaining errors in the calculation and the descriptions reported in this thesis are of course, entirely my responsibilities.

Finally, let me offer my profound gratitude to my parents and other family members who always inspired me to complete this journey of higher education from the benchmark of my academic qualification that I had. Without their encouragement and inspiration my higher education could not have been fulfilled.

Anjila Shrestha
Nakabahil, Lalitpur
Campus Roll No. 60/065
TU. Reg. No. 7-2-258-6-2005

TABLE OF CONTENTS

LIST OF TABLES

Table No.

LIST OF FIGURE

Figure No.

ABBREVIATIONS

BCBS	**:**	**Basel Committee On Banking Supervision**
CAR	**:**	**Capital Adequacy Ratio**
C/D Ratio	**:**	**Credit/Deposit Ratio**
CS	**:**	**Capital Structure**
CV	**:**	**Coefficient of Variance**
DPS	**:**	**Dividend Per Share**
EPS	**:**	**Earning Per Share**
Fig	**:**	**Figure**
i.e.	**:**	**That is**
JVS	**:**	**Joint Venture Banks**
NIC Bank	**:**	**Nepal Industrial and Commercial Bank**
NRB	**:**	**Nepal Rastra Bank**
P.E	**:**	**Probable Error**
r	**:**	**Correlation Co-efficient**
TRWA	**:**	**Total Risk Weighted Assets**

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Development of any country is demonstrated by the development of the financial sector of the country. The financial sector of any country comprises of banks, finance companies, co-operative societies, insurance companies, stock markets, foreign exchange markets, mutual funds, provident funds etc. And stock exchanges via primary markets, banks and financial companies via short-term and other type of loans are recognized as the main sources of much needed capital input for industries and business.

Banks are those intermediaries who accept deposits and grants loan. In other words, bank may be defined as financial intermediaries accepting deposits and granting loans; offers the widest menu of services of any financial institution. Certainly banks can be identified by the functions they perform in the economy. Indeed, many financial institutions including security dealers, brokerage firms, mutual funds, and insurance companies are trying to be as similar as possible to banks in the services they offer.

Banks plays vital role in the development of the economy of any country, in other words we can’t imagine trade and economic activities in the absent of bank and financial Institution. It is a resource mobilization institution which accepts deposits from various sources and invests such accumulated resources in the fields of agriculture, trade, commerce, industry, tourism and other service sector as well etc. Banking sector is largely responsible for collecting household savings in terms of different types of deposit and regulating it in the society by lending in different sectors of economy. By lending their resources in small scale industries such as micro financing which is playing a wonderful role now in the context of Nepal now also and under intensive banking program has enabled the banks to share in the economic growth of the economy activities.

Major contribution has been the development and advancement of agriculture sector by government of Nepal. However, economic liberalization policy of Government has encouraged establishment and growth of financial institution in Nepal. There are so many financial institutions such as commercial banks, development banks, finance companies, micro credit development banks and saving and credit co-operatives are performing in their own way for national financial strength. In the context of Nepal there should be specific institutions are still to be promoted and encouraged.

Bank and financial sector is the backbones of country's economy are related with monetary and capital market. The main objective of the commercial banks is to mobilize the resources by investing the same in profitable manner. The resources include capital funds consisting of shareholder's equity, money deposited by the people, borrowing and profit capitalization. The competency of any commercial banks is referred as to utilization of the resources on most profitable manner. The profit should be adequate to meet its cost of funds as well as there should be some margin left over as the reward for risk bearing. The financial institutions are supposed to have contribution for the overall economic reforms in the country.

Although the businesses are the major sources of capital, they also have to raise capital to run business. Especially, the bank capital has significant role to play as the banks have obligations to mass people, its depositors. Thus, the banks should hold an adequate capital to secure the interest of depositors.

While talking about the capital formation, commercial banks play a major role in it. Capital is one of the most important components for every organization. Actually, no organization can exist without capital. Without capital, it is not possible to set up any type of business whether it is general store or a big business house. Every organization is started with a zero position and only come into existence when the promoters, owners or shareholders finance on it as capital. Every organization should have enough capital to run business.

Capital Adequacy has become one of the most significant factors for assessing the soundness of banking sector. Raising and utilization of funds are the primary functions of commercial banks. As such, commercial bank collects a large amount of deposits from general public. The depositors think that depositing their money in bank is safe and relaxing. But, what does happen if the bank doesn't have enough capital funds to provide a buffer against future, unexpected losses? Therefore, capital must be sufficient to protect a bank's depositors and counterparties from the risks like, credit and market risks. Otherwise, the banks will use all the money of depositors in their own interest and depositors will have to suffer loss.

After the restoration of multiparty democracy, several commercial banks made a way to business in Nepal. At present, commercial bank holds a large share of economic activities of the country. Stock market has been dominated by commercial banks since a decade. Every day, we can see trading of large amount of stock transactions of commercials banks. Not only in the stock market, but commercial banks have also been major contributors to the revenue of the country. They have been paying a large amount of tax every year. Banking sector has become a mainstay of the economy of the country.

Establishment of commercial banks is governed by Bank and Financial Institutions Act and Company Act. However, Nepal Rastra Bank (NRB), as a regulatory body for banks and financial institutions, has right to specify the capital requirements, and other requirements. Being the central bank of Nepal, NRB has the responsibility to give special attention to the interest of depositors.

Capital is the cash or goods used to generate income either by investing in a business or a different income property. Whereas the capital adequacy ratio is percentage ratio of a financial institution's primary capital to its assets (loans and investments), used as a measure of its financial strength and stability.

NRB issued Directives to be complied by all financial institutions of the country. The Directives consist of 21 volumes. The NRB Directive no. 1 states about the Capital Adequacy Norms for financial institutions indicating the requirements of maintaining the Capital Fund to the prescribed ratios. The directives are said to be based on the internationally accepted norms of Basel Committee. The Basel Committee on banking supervision is a committee of banking supervisory authorities which was established by the central bank governors of the group of ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, The Netherlands, Sweden, Switzerland and the United Kingdom and the United States. It usually meets at the bank for international settlements in Basel, Switzerland, where its permanent secretariat is located.

1.2 INTRODUCTION TO NEPAL RASTRA BANK (NRB)

Nepal Rastra Bank (NRB), the central bank of the Government 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 confidence in Nepal’s entire banking and financial system.

The Bank is eminently aware that, for the achievement of the above objectives in the present dynamic environment, sustained progress and continued reform of the financial sector is of utmost importance. Continuously aware of this great responsibility, NRB is seriously pursuing various policies, strategies and actions, all of which are conveyed in the annual report on monetary policy which provides a comprehensive review and evaluation of the previous monetary policy and justification and the analysis of the following year's monetary policy. The re-engineering of the NRB itself is one of the critical components of the reform agenda. To improve the financial sector legislative framework, some new Acts have already come out and there have been amendments to some existing Acts. Enactments of the draft legislations on bank and financial institutions, secured transactions, insolvency, Assets Management Company and anti-money laundering are expected to be soon materialized, all with the goal of strengthening the financial sector through building on its healthy development and improved stability.

These activities convey the commitment of the NRB for addressing the present and future challenges of the financial system more competently. This dynamic and proactive approach to the financial system, especially with its increasing openness and competitive process in the context of growing global financial environment, should ensure a sustained progress and stability of the financial system under NRB's guidance and leadership, for contributing substantially to the sustained development of the economy of Nepal.

Being the central bank of the country, the ownership of NRB is with the Government of Nepal but, the management of NRB is not controlled by it. NRB has 12 branches throughout the kingdom of Nepal including the head office at Baluwatar and the main banking office at Thapathali in Kathmandu.

As per the Nepal Rastra Bank Act, 2058, the objectives of NRB are stated as follows:

a) To formulate and maintain appropriate monetary and foreign exchange policy for stable price and balance of payments situation required for sustainable economic development.
b) To manage the required liquidity and stability of banking and financial sectors.
c) To develop secure, healthy and efficient payment system.

d) To monitor, supervise and evaluate banking and financial system within the country.

As well as, Nepal Rastra Bank Act., 2058 has prescribed the rights, duties and functions of NRB as follows:

a) To issue currency notes and coins in the market.
b) To formulate and implement necessary monetary policy for price stability.
c) To formulate and implement foreign exchange policy.
d) To determine the foreign exchange rate adjustment regime.
e) To operate and manage foreign exchange reserves.
f) To issue license to commercial banks and financial institutions for carrying out financial transactions and regulate, inspect, supervise and monitor such transactions.
g) To function as the banker, advisor and financial agent of Nepal Government.
h) To function as a bank of commercial banks and financial institutions, and as a lender of last resort.
i) To establish, promote and regulate the systems of payments, clearing and settlements: and
j) To carry out other important functions as necessary towards realizing the objectives enjoyed by the Act.

1.3 INTRODUCTION TO NEPAL INDUSTRAL AND COMMERCIAL BANK LIMITED (NIC BANK)

NIC Bank, which commenced operation on 21st July 1998, is the first commercial bank in the country to be capitalised at Rs. 500 million. The bank was promoted by some of the prominent business houses of the nation. The bank which has been in profitable operation from its inception, has managed robust growth in its overall business and profitability during the recent years. The bank offers a complete suite of commercial banking products and services including transaction banking,

international trade finance, business banking, project finance, corporate banking and consumer banking.
The current shareholding pattern of the bank constitutes of promoters holding 51% and general public holding 49%. NIC Bank is one of the most widely held banking companies in Nepal with close to 34,000 shareholders. The shares of the bank are actively traded in Nepal Stock Exchange with current market capitalisation of Rs. 8,210 million.

Within 14th years of commencing business, the bank has grown rapidly with 26 branches throughout the country with few more in the pipeline. All branches are inter-connected through V-Sat and capable of providing online, real time transactions.

The bank is the first commercial bank in Nepal to be ISO 9001:2000 certified for quality management system in the year 2006. The bank has recently been certified under the upgraded ISO 9001:2008 standards for the bank's quality system on commercial banking activities for the first time in Nepal. The bank has also been awarded the "Bank of the year 2007-Nepal"by the world-renowned financial publication of The Financial Times, U.K-The Banker. The bank is run by professionals and believes in the highest standards of corporate governance.

Furthermore, NIC Bank became the first Bank in Nepal to be provided with a line of credit by International Finance Corporation (IFC), an arm of World Bank Group under its Global Trade Finance Program, enabling the Bank's Letters of Credit and Guarantees to be accepted / confirmed by banks worldwide.

NIC Bank's organizational structure is designed to support its business goals, and is flexible while at the same time seeking to ensure effective control and supervision and consistency in standards across all businesses. The organizational structure is divided into five major areas viz. Consumer Banking, Business Banking, Special Assets Management, Treasury and Liability Marketing and Transaction Banking all of which are supported by the Corporate Centre. The bank is committed to provide financial services to its patrons through efficient and cost effective service delivery through its transaction, consumer, business banking and treasury divisions.

The bank believes in continuously offering new and value added services to its customers with commitment to quality and value to its clients. Accordingly, the bank has been in the forefront in launching innovative and superior products with unique customer friendly features with immense success. Following are the few products which have been playing vital role in the overall success of the bank winning the hearts of, hundreds of customers:

1. NIC Happy Savings Account
2. NIC Life Savings Accounts
3. Mero Bachat
4. Karmashil Bachat Khata
5. NIC Savings Plus
6. NIC Sikshya Kosh
7. NIC Shareholders Savings Account
8. NIC Bussiness Account
9. NIC USD Super Savings Account
10. NIC Super Deposit
11. NIC Social Account
12. NIC Corporate Super Account
13. NIC Remit Savings Account

Vision Statement: Our vision is to become one of the most respectable banks in Nepal based on honorable conduct and long-term financial performance.

Mission Statement: Our mission is to become a leading bank in Nepal by providing complete financial solutions to our customers, superior value to our shareholders and promising growth opportunities to our employees.

1.4 STATEMENT OF PROBLEM

Bank plays a significant role in the economic development of the country by extending credit to the people. Although banking industry in Nepal is making remarkable progress and growth, it's not without the problems. At the present context, the main problem faced by the business sector as well as bank is the unstable political and economic condition of the country.

Capital Adequacy has become one of the most significant factors for assessing the soundness of banking sector. Raising and utilization of funds are the primary functions of commercial banks. As such, commercial bank collects a large amount of deposits from general public. The depositors think that depositing their money in bank is safe and relaxing. But, what does happen if the bank doesn't have enough capital funds to provide a buffer against future, unexpected losses? Therefore, capital must be sufficient to protect a bank's depositors and counterparties from the risks like, credit and market risks. Otherwise, the banks will use all the money of depositors in their own interest and depositors will have to suffer loss. If the banks go bankrupted, what will happen to the depositors of such money? Thus, an adequate Capital Fund is required to safeguard the money of depositors. The adequacy of Capital Fund is the most important aspect of the bank. The study has main focus on the Capital Fund of the NIC Bank. This study tries to find out the answer of the following questions:

1. What is the position of NIC Bank in respect to its Capital Structure?
2. What is the change in Capital Adequacy Norms on NIC Bank?
3. Is Capital Fund of NIC Bank adequate to safeguard the money of the depositors?

The Capital Adequacy ratio is derived on the basis of Total Risk Weighted Assets. The Capital Adequacy Ratios to be maintained by commercial banks are as follows in the FY 2067/68:

Core Capital Fund	:	**6%** of the Total Risk Weighted Assets
Total Capital Fund	:	**10%** of the Total Risk Weighted Assets

But before the FY 2067/68, this requirement had been minimum requirement of 6% in the form of Core Capital Fund and 11% in the form of Total Capital Fund by issuing a notification by NRB.

1.5 OBJECTIVE OF THE STUDY

The main objectives of the study were as follows:

1. To examine the Capital Adequacy status of NIC Bank.
2. To analyse the trend Capital Adequacy Norms followed by NIC bank.
3. To examine the relation of capital fund to the deposit, loan and advances of the bank.

1.6 SIGNIFICANCE AND FOCUS OF THE STUDY

The study will have a significant importance in the present context of banking business in Nepal. Commercial banks have collected more than Rs. 732.13 billions of Deposit. We can observe that there is a lack of adequate investment opportunity of funds. In such situation, these Deposits have to be protected by the adequate Capital Fund of respective commercial banks. In fact, the banks should have adequate Capital Fund apart from the deposits of public to make investments.

Presently, raising capital is a tough task. The growing NPAs, being the main headache of commercial banks, meeting the Capital Adequacy is very tough, though it is not impossible.

This thesis may not be new study in the field of banking sector but the thesis shall of course present some results which will reflect the capital structure and position of commercial banks in Nepal.

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 32 commercial banks in Nepal and few of them are still on the pipeline. Keeping in view of the striving commercial banks, the thesis report, as case study, analyzes the matters, issues and problems related to capital funds of NIC Bank Limited. The thesis report is mainly focused on accordance of the Capital Adequacy Norms of Nepal Rastra Bank (NRB) by NIC Bank.

1.7 LIMITATION OF THE STUDY

The study is limited to the Capital Fund and Capital Adequacy Norms for commercial banks. Since, it is not possible to take all commercial banks as sample, the thesis analyses the data and information of NIC Bank. The data and information over the period of 5 fiscal years commencing from FY 2063/64 to FY 2067/68 is used in the study.

Balance Sheets, Profit and Loss Accounts and other Financial Statements are considered as basic source of data. Thus, the study will be mainly based on the secondary data collected from various sources. However, some primary data will also be derived from the analysis of questionnaire prepared for the research study.

For the literature review, various newspapers, journals, unpublished thesis works and nevertheless, the internet will be adequately referred. However, the literature review was limited to very few articles and research works due to unavailability of sufficient such matters and adequate time.

1.8 ORGANIZATION OF THE STUDY

The entire study is carried out to different stages and procedures as it is needed. The study is organized in the following 5 chapters in order to make the study easy to understand. Chapter 1 is an introductory chapter which contains brief background about bank and its importance, Introduction to Nepal Rastra Bank, Introduction to NIC Bank, Statement of Problem, Objectives of the Study, Significance of the Study, Limitation of the Study and Organization of the Study. This chapter has been targeted to help the reader to understand get the rhythm of the subject matter of the thesis report. Review of Literature includes conceptual review, review of NRB Capital Adequacy Norms and review of empirical works. For this purpose, various books, journals and periodicals as well as internet have been adequately utilized. The third chapter is one of the most important chapters of the study. It deals with the research methodology, which is applied to collect the data and analyze them in the study. It contains Research Design, Population and Sampling, Methods of Data Collection and Methods of Data Analysis. Presentation and Analysis of Data illustrates the collected data into a systematic format. The analysis of those data is also included in this chapter. As well as, interpretation of analysis has also been done in this chapter. The fifth chapter is the last part of the study, which provides summary, conclusion, suggestions and recommendations for improving the future performance of the sample bank. This chapter further describes the major findings of the thesis. Finally, bibliography and appendices are also presented at the end of the thesis work.

CHAPTER 2

REVIEW OF LITERATURE

Review of literature is the chapter where a researcher reviews the books, journal, magazines or any other types of studies, which are related to his/her field of study. Research is a continuous process it never ends. The procedures and the findings may change but research continues. It is believed that the review of literature is helpful to show the needs of the research work and to justify the work. It gives more information and description of the related theoretic aspects. This chapter deals with review of books, reports articles and unpublished publications.

2.1 CONCEPTUAL REVIEW

2.1.1 ORIGIN AND DEVELOPMENT OF BANK

The basis of banking is the expectation that the business will generate money at some time in the future to repay the amount lent or invested, plus a return to the owner of the funds.

Banking is nearly as old as civilization. The ancient Romans developed and advanced banking system to serve their vast trade network, which extended throughout Europe, Asia, and much of Africa.

There are different views regarding the origin of bank. Some people say that the term “bank” derived from the Latin word “bancus”. Some say that it is the outcome of French word “banque”. It is also said that the word bank has been derived from Italian word “banca”, which means a bench for keeping monetary records. Other group of people also concludes that bank has a German origin. Hence the concept of banking has been varying from time to time.

According to historical sources, the goldsmiths and moneylenders contributed to a large extent in the growth of banking. In the early age, the goldsmiths used to store peoples gold charging nominal charges and issued receipts to the depositors, which was good for payments. At the time, this was done for security rather than interest. Later they started advancing the money charging interest. The goldsmith-moneylender started performing the functions of modern banking, i.e., accepting deposits and advancing loans.

However, the modern banking originated in Italy in 1157, with the establishment of the first bank "Bank of Venice" to finance the monarch in the wars. Following it were the establishments of Bank of Barcelona and the Bank of Genoa in 1401 AD and 1407 AD respectively. With large banking firms established in Florence, Rome, Venice, and other Italian cities banking activities spread throughout Europe and slowly spread throughout the world. Since the 1960's, banking has become much more international because of the increase in the number of multinational companies and the spread of their operations worldwide.

Nepal has a long history of using money. History unveils that the first Nepali coins to be introduced were *Manank* during the reign of the King Mandev and *Gunank* during the reign of the King Gunakamdev. Afterwards the coins were reintroduced during the reign of Amshuverma. After the unification of Nepal, the great King Prithivi Narayan Shah started the coin *Mohar*. The *Taksar* was established in 1789 to issue coins scientifically. In 1876, during Rana Regime an office named *Tejarath Adda* was established in Kathmandu to provide loans against deposit of gold and silver. But the office did not have right to accept deposits.

To begin to the modern banking system, Nepal Bank Limited was established in 1937 as the first bank of the country. Nepal Bank Limited dominated the financial sector of the country for almost 30 years without any competitor. This bank played a major role to boost up the Nepalese economy during that period. Nepal Rastra Bank was established in 1955 as central bank of Nepal which was very essential for Nepalese economy. The second commercial bank, Rastriya Banijya Bank was established in 1965 under the Rastriya Banijya Bank Act, 2022 with full ownership of the Government of Nepal.

2.1.2 DEVELOPMENT OF BANK

Bank of England was converted into the central bank of England in 1894. This was done by establishing the Governor and the Company of the Bank of England. At present, this bank is known as the Central Bank of England.

Shekhar and Shekhar (1998*)* ***Banking theory and practice, New Delhi,*** have stated that after the World War I and the consequent chaotic monetary conditions brought home to many countries the imperative necessity of establishing a centralized institution capable of creating and maintaining equilibrium in the monetary sphere.
In September 1920, an International Financial Conference was held at Brussels, which pointed out that those countries which had not yet established a central bank and were the spring of 1922, the Genoa Conference also indicated the need of central bank. Then after, there came a wave of establishing central banks by several countries.

2.1.3 MEANING OF CENTRAL BANK

A central bank is fundamentally a chief bank of a given nation. The essential responsibilities of the central bank include issuing and maintaining a stable influx of currency, ensuring optimal employment, and keeping inflation under control. Other tasks of the central bank consist of holding deposits on the reserves of other banks, as well as overseeing lending and exchange practices of commercial lenders. The central bank also plays a vital role of reserving the nation's emergency funds. It is the national institution that monitors all financial and monetary procedures and policies.

Rosenberg (1982) ***Dictionary of banking and finance, New York: John Wiley and Sons*** has defined the central bank as a banker's bank and a bank holding the main body of bank reserves of a nation and the prime reservoir of credit. (e.g. Bank of England, Bank of France)

Clark (1999) ***International Dictionary of Banking and Finance,*** New York: Glenlake Publishing Co. Ltd and AMACOM American Management Association has expressed the central bank as bank that often carries out government economic policy, influences interest and exchange rates and monitors the activities of commercial and merchant banks. In this way it functions as the government's banker and is the lender of the last resort to the banking system.

Encyclopaedia Britannica (2002) defines Central Bank as an institution that is charged with regulating the size of a nation's money supply, the availability and cost of credit, and the foreign-exchange value of its currency. Regulation of the availability and cost of credit may be non-selective or may be designed to influence the distribution of credit among competing uses. The principal objectives of a modern central in carrying out these functions are to maintain monetary and credit conditions conductive to a high level of employment and production, a reasonably stable level of domestic prices, and an adequate level of international reserves.

Central bank is an institution which is charged with the responsibility of managing the expansion and contraction of the volume of money in the interest of the general public welfare. It is also a banker's bank and holding reserves of the country and ultimate reservoir of credit. Hence, central bank is the regulating authority for commercial banks, and other banks and financial institutions.

2.1.4 IMPORTANCE AND FUNCTIONS OF CENTRAL BANKS

Shekhar and Shekhar (1998), comment that it is difficult to lay down any hard and fast rule regarding the functions of a central bank. The powers and the range of functions of central banks vary from country to country.

The most important and the earliest functions to be discharged by a central bank is that of acting as a bank of issue. As well as it is a banker's bank. The central bank also acts as a lender of the last resort. In case of any problems and emergency to any of the banks operating under it, central bank comes forward to rescue them temporarily from such problems. It also plays the role of an agent, an advisor and banker to the Government. Central bank is a custodian of the nation's metallic reserves and controller of currency.

A central bank has sole right to issue national currency notes. It controls money flow in the market by imposing monetary policy. It issues notes after full analysis of unemployment, inflation, economic growth, etc. of the country. Central bank is the holder of all the Government balances. It is the holder of all the reserves of the other banks and financial institutions in the country.

Objectives between a central bank and other commercial banks are different. The main objective of a central bank is to assist the government to implement economic politics without any profit motive, where as the main objectives of other banks is to earn profit by mobilizing funds collected from the general public. As well as the central bank plays the role of guardian and parents to other commercial banks.

As a regulatory body of all other banks and financial institutions, a central bank is the origin of all banking policies under which all the banks are supposed to operate. Therefore, a central bank guides and assists in operating banking system as a whole. A central bank has full authority to interfere in the banking market i.e. to all banks in terms of implementing its policies. It can penalize the banks in case they go out of the central bank's policy or the termination of the license and also can restrict their working dimensions to a large extent.

A central bank is also important in the context to co-ordinate with different international institutions such as International Monetary Fund (IMF) etc. It works under the supervision and guidance of such institution to develop the monetary system of a country.

2.1.5 MEANING OF COMMERCIAL BANK

A commercial bank is a financial intermediary which collects credit from lenders in the form of deposits and lends in the form of loans. A commercial bank holds deposits for individuals and businesses in the form of checking and savings accounts and certificates of deposit of varying maturities while a commercial bank issues loans in the form of personal and business loans as well as mortgages. The term commercial bank came about as a way to distinguish it from an "investment bank." The primary difference between a commercial bank and its counterpart is that a commercial bank earns revenue by issuing primary loans from its pool of deposits while an investment bank brings debt and equity offerings to market for a fee. Among its assets, including loans, a commercial bank holds a portfolio of other securities to generate proprietary income.

Rosenberg (1982) has stated commercial bank as an organization chartered either by the Controller 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.

Clark (1999) has defined commercial bank as 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.

"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."

(Encyclopaedia Britannica, 2002)

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

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

2.1.6 OVERVIEW: CAPITAL AND CAPITAL ADEQUACY

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

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

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

Patheja (1994) ***Financial management of commercial banks***, ***Delhi*** 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) ***Funds management in commercial banks***, ***New Delhi*** 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.

NRB had issued new set of Capital Adequacy Framework 2007(Updated July, 2008) applicable to all 'A' class financial institutions licensed to conduct banking business in Nepal under the Bank and Financial Institutions Act, 2063, which should have been implemented by Mid July 2008.

The main objective of new capital framework is to develop safe and sound financial system by way of sufficient amount of qualitative capital and risk management practices. This framework is intended to ensure that each commercial bank maintain a level of capital which,

1. Is adequate to protect its depositors and creditors,
2. Is commensurate with the risk associated activities and profile of the commercial bank.
3. Promotes public confidence in the banking system.

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**.

A. Core Capital: The key element of capital on which the main emphasis should be placed is the Core Capital, which comprises of equity capital and disclosed reserves. This key element of capital is the basis on which most market judgements of capital adequacy are made; and it has a crucial bearing on profit margins and a bank's ability to complete.

The BCBS has therefore concluded that capital, for supervisory purposes, should be defined in two tires in a way, which will have the effect of requiring at least 50% of a bank's capital base to consist of a core element comprised of equity capital and published reserves from post-tax retained earnings. In order to rank as core capital, capital must be fully paid up, have no fixed servicing and be freely available to absorb losses ahead of general creditors. Capital also needs to have a very high degree of permanence if it is to be treated as core capital.

B. Supplementary Capital: The supplementary 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. It will be reckoned as capital funds up to a maximum 100% of a core capital arrived at, after making adjustment referred in deduction from core capital. In case where the core capital of a bank is negative, the supplementary capital for regulatory purpose shall be considered as zero and hence the capital fund, in such case, shall be equal to core capital.

The **Core Capital** consists of the following components of capital:

1. **Paid Up Capital**
2. **Share Premium**
3. **Irredeemable Preference Shares**
4. **Proposed Bonus Equity Shares**
5. **General Reserve Fund**
6. **Retained Earnings**
7. **Accumulated Profit / Loss**
8. **Capital Redemption Reserve**
9. **Capital Adjustment Fund**
10. **Dividend Equalization Reserves**
11. **Other Free Reserves**

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**

The **Supplementary Capital** consists of the following components of capital:

1. **Redeemable Preference Share**
2. **General Loan Loss Provision**
3. **Assets Revaluation Reserve**
4. **Hybrid Capital Instruments**
5. **Unsecured Subordinated Term Debt**

6. **Exchange Equalization Reserve**
7. **Investment Adjustment Reserve**
8. **Other Reserves**

The total of Core Capital and Supplementary Capital is considered for calculating Capital Adequacy Ratio. The Capital Adequacy Ratio is based on total Risk-Weighted Assets.

Clark (1999) has defined capital adequacy as legal requirement that a financial institution (such as bank) should have enough capital to meet all its obligations and fund the services it offers.

Besis (1998) ***Risk management in banking***, .has claimed that capital adequacy aims at setting minimum level of capital as a function of risks. Thus, capital should be risk based.

Maisel (1981) ***Risk and capital adequacy in commercial banks, Chicago*** "Capital is adequate either when it reduces the chances of future insolvency of an institution to some predetermine level of alternately when the premium paid by the banks to an insurer is "fair", that is, when it fully covers the risks borne by the insurer. Such risks, in turn, depend upon the risk in the portfolio selected by the bank, on its capital and on terms of the insurance with .reference to when insolvency will be determined and what loss will be paid".

The Capital Adequacy Ratio is yielded by the following formula:

$$\text{Capital Adequacy Ratio} = \frac{\text{Total Capital Fund}}{\text{Total Risk-Weighted Assets}} \times 100\%$$

2.2 REVIEW OF NRB CAPITAL ADEQUACY NORMS FOR COMMERICAL BANKS

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). These norms were issued under the Provision 79 of Nepal Rastra Bank Act, 2002 for developing and regulating banking system.

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

1. Core Capital of not less than 6% of total risk weighted exposures.
2. Total Capital Fund of not less than 10% of total risk weighted exposures.

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

Requirements have not been prescribed for Supplementary Capital and focus has been made for Core Capital. So, it is required to fulfil the requirement for Core Capital and excess of Core Capital over the requirement can be utilized to meet the overall requirement of Total Capital Fund.

As stated earlier, for the purpose of calculation of Capital Fund, the capital of the banks is divided into two components Core Capital and Supplementary Capital. Core Capital consists of paid up capital, share premium, Irredeemable preference shares, proposed bonus equity shares, general reserve fund, accumulated profit/loss., retained earnings, capital redemption reserve, capital adjustment fund, dividend equalization reserves and other free reserves. Supplementary capital consists of redeemable preference share, general loan loss provision, exchange revaluation reserve, assets revaluation reserve, hybrid capital instruments, unsecured subordinated term debt, investment adjustment reserve and other reserves. The sum of these two components is considered to be total capital fund.

For the purpose of calculation of capital fund, the risk-weighted assets have been classified into two parts – On-Balance Sheet Risk-Weighted Assets and Off-Balance

Sheet Risk-Weighted Items. The amount of risk-weighted assets calculated by multiplying the amount of the asset with the weightage assigned to them and the total of which will be extracted for the purpose of calculation of capital adequacy ratios.

As per the norms, the capital fund ratio would measure the total capital fund on the basis of total risk-weighted assets. The capital fund ratio shall be determined as follows:

$$\text{Capital Fund Ratio} = \frac{\text{Core Capital + Supplementary Capital}}{\text{Sum of Risk-Weighted Assets}} \times 100\%$$

The sum of risk-weighted assets is the sum of total on-balance sheet risk-weighted assets and total off-balance sheet risk-weighted items.

The banks shall, at the end of Ashoj (mid October), Poush (mid January), Chaitra (mid April) and Ashad (mid July) of each fiscal year, prepare the Statements of Capital Fund and other relevant statements on the basis of the financial statements as per the prescribed Form No. 1 and Form No. 2 and submit to the Banking Operations Department and Inspection and Supervision Department of this bank within one month from the end of each quarter.

Through a review process, NRB has prescribed a separate Form applicable to all ‘A’ class financial institutions from the year 2065/66.

In the event of non-fulfilment of Capital Adequacy Ratio by any bank, the Board of Directors of the bank shall submit the adequate reasons for not being able to maintain the required capital fund and capital plan or program prepared to fulfil the capital fund requirements within 35 days. NRB shall direct the bank to fulfil the requirements as per submitted capital plan or program and within the time limit prescribed. The bank is not allowed to distribute dividends and bonus shares in such context.

If any bank does not fulfil the minimum Capital Fund within the specified period, NRB may initiate any of the following actions:

a) Suspension of opening new branch.

b) Suspension of access to refinancing facilities of Nepal Rastra Bank

c) Restriction on lending activities of the bank.

d) Restriction on accepting new deposits.

e) Initiation of any other actions by exercising the authority under Section 100 of Nepal Rastra Bank Act, 2058.

2.3 EMPIRICAL REVIEW

2.3.1 REVIEW OF ARTICLES AND REPORTS

Keijser and Haas (2001) "*Financial collateral and capital adequacy requirements"* *Retrieved February 20, 2007* have summarised as the Basel Capital Accord of 1988 was an important first milestone in the regulatory treatment of collateralised transactions. However, the role played by risk mitigating factors in this Accord, such as the use of financial collateral, is still rather limited. The same holds for the European Directives and national regulations derived from the Basel Accord. The use of a wider range of collateral will be allowed in the new Accord and the banks will be able to choose either the comprehensive or the simple approach for the treatment of collateral. Whereas the simple approach resembles the current Basel substitution methodology in its treatment of collateral, the comprehensive approach is more innovative. It assigns a central role to collateral haircuts, which may be used on banks' own internal estimates of collateral volatility. By making a wider range of collateral available for credit risk mitigation and making the calculation of risk-weighted assets more risk-sensitive, the revision of the Basel Accord is intended further to align regulatory capital which banks must hold and their actual economic risk structure.

Pandey, L.P. (2003) ***NRB's effort to reform commercial banks: The Rising Nepal, p.4*** (2003, June 10) stressed that one of the main objectives of a commercial bank is to safeguard the money of depositors. With the low capital adequacy rate, the banks were previously lending from the money of the depositors because the capital comprised a very small portion of the total risk-weighted assets. However, the returns the shareholders or promoters were reaping were quite high. The risk of the depositors was too high. **Pandey** further put forward that a good banking system is, therefore, a sine qua non for maintaining financial equilibrium in the country. And, NRB's efforts in this direction are really praiseworthy.

Lamsal, H.R. (2003) ***NRB Directives: Bankers plea for lighter structures. New Business Age, 1(3), pp.31-35*** (2001, July) stated that the commercial banks with seven directives issued in two instalments 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.

Khatiwada, N.K. (2005) ***Banking sectors reform in Nepal I and II: Implications for corporate governance, The Telegraph Weekly, p.2*** (2003, April 30 and May 7) enlightened 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.

Khatiwada emphasized various reform measures. One of the measures was increasing capital base and revising capital adequacy. Khatiwada stressed that experience has shown that undercapitalized financial institutions are the ones that are first attacked by the speculators and hedgers at the time of crisis and create contagious effect on the other institutions as well. Besides, undercapitalized financial institutions cannot gain credibility and corporate growth even in normal items. This requires that financial institutions are adequately capitalized and possess resilience against attacks by dealers and customers. In this context, the capital adequacy norms are being revised upward as per the Basel Capital Accord. But increasing the capital base for loss making government owned financial institutions is not easy without involving private sector in the equity capital.

2.3.2 REVIEW OF THESIS WORKS

Pandey, A.K. (2002) ***"Nepal Rastra Bank Directives, their implementation and impact on the commercial banks- a case study of Himalayan Bank Ltd. (HBL)."*** has given conclusion regarding the capital adequacy of HBL during his study period, i.e., as of Poush end 2058 as the capital fund stood at Rs. 1070 million comprising of Rs. 756 million core capital and Rs. 314 million of supplementary capital. The total risk weighted assets of HBL is equal to Rs. 12690.6 million. Therefore, the capital adequacy of the bank stood at 8.43% of the total risk weighted assets. Core capital is 5.96% and the supplementary capital is 2.47% of total risk weighted assets. Hence, Pandey has concluded that HBL has surplus of Rs. 184.92 million of core capital and a shortfall of Rs. 257.08 million of supplementary capital. The standard required to be maintained by HBL as per NRB by July 16, 2002 is 4.5% in each case totalling 9%in all. However, according to the Directives, a shortfall in the supplementary capital can be fulfilled by the surplus in core capital. Therefore, in case of HBL, the bank can use excess of Rs. 184.92 million core capital to compensate for the shortfall. But still the bank requires another Rs. 72.6 million to meet the requirement of supplementary capital. Pandey has suggested that HBL should increase the capital base from Rs. 1070 million by at least Rs. 115 million to meet the capital adequacy ratio. For this, the bank should try to increase its supplementary capital as it falls short by Rs. 73

million. The bank should increase its core capital in order to expose itself to more credit risk.

Sapkota, U.P. (2004), "***A study on fund mobilizing policy of Standard Chartered Bank Nepal Limited."*** in his study on fund mobilizing policy of Standard Chartered Bank Nepal Ltd. (SCBNL), has found that liquidity position of SCBNL was not satisfactory. Loans and advances, cash and bank balance ratio seemed too weak than that of NBBL and HBL. Investment on share and debenture and interest earning power on total working fund also seemed weak in condition than that of NBBL and HBL. The relation of investment and loans and advances with deposits seemed positive and the relation of net profit with outside assets (investment and loans and advances) seemed positive. At last, Sapkota concluded that in overall condition SCBNL seemed in satisfactory position in comparison to NBBL and HBL. Since SCBNL used to provide less loans and advances in comparison to its total deposits, Sapkota has strongly recommended for following a liberal lending policy so that more percentage of deposits can be invested in different profitable sectors as well as towards loans and advances as a significant factor this affects the net profit of the bank. Subsequently, a skilful administration is the most for these assets because negligence may become a reason for liquidity crisis and bankruptcy.

Karmacharya, R.P. (2005) "S***tudy on capital structure of joint-venture commercial banks and NRB Directives issued in regards to thereof"*** has expressed that the financial soundness as well as its strength of the company depends upon the large extent on the composition of the capital structure and assets. Capital structure of the company presents its resource capacity and ability of its present worthiness. In the study, he has found that all the banks in his study follow the requirements of NRB Directives regarding capital adequacy. The capital structure of studied banks is highly leveraged. Thus, Karmacharya has recommended that the proportion of debt and equity capital should be decided keeping in mind that effort of tax advantages and financial distress. The banks are required to maintain improved capital structure by increasing equity base i.e., issuing more equity capital, expanding general reserve and retaining more earnings. With this improvement, it will compromise among the conflicting factors of cost and risk. As mandated by NRB, for the operation in overall Nepal, a commercial bank should have capital base of Rs. 500 million. Hence, the banks should raise its paid-up capital to Rs. 500 million as soon as possible.

Shrestha, T.R. (2005), "***A comparative study on investment practice of joint-venture commercial banks"*** in his study has stated that in a situation when the existing financial institutions, especially government owned commercial banks were unable to supply credit timely and carry capital market activities, private joint venture commercial banks have contributed a lot. The overall performances of joint venture commercial banks are satisfactory and NRB has to play more active role to enhance the operation. The analysis of liquidity position of sample joint venture commercial banks (Nabil Bank Ltd., Standard Chartered Bank Ltd. and Nepal SBI Bank Ltd.) has satisfactory outcomes. Initially, the major part of these banks was consisting of business and industrial loan: this is the indication of investment on productive sector. Nowadays, these banks are slowly turning towards hire purchase and housing financing.

Dhakal,G. (2006), in his study entitled *"A comparative study of Capital Adequcy of Joint Venture Banks in Nepal Arab Bank Ltd. and Nepal Investment Bank Ltd."* concludes that the liquidity position of both the banks is below the normal standard of 2:1 comparatively his ratio of NIBL is better on an average. Both the banks are found to be efficient in utilizing most of their total assets, capital structure is highly leveraged, capital adequacy, ratio of NIBL is better than that of NABIL and the profitability position of both the banks is not recorded as satisfactory. Based on the finding of analysis, the research suggests finding out the root cause of weak liquidity position to improve the liquidity of both banks. Similarly, both the banks are suggested to maintain improve capital structure by increasing equity base, to extend loan and advances to utilize more of the total deposits, to minimize operational expenses or to mobilize resources more efficiently and to extend their banking facilities even in the rural areas.

Shrestha,R. (2007) , conducted a study on *"CS and cost of capital in selected manufacturing companies"* to examine the impact of CS on cost of capital and cost of equity of the sampled five companies by analyzing the CS in terms of total debt to capital employed, total debt to equity capital, DPS to EPS, total current assets to total current liabilities net income to make value of ordinary shares of selected manufacturing companies. During the study, the researchers found that CS of sampled companies is highly fluctuating due to unsystematic design of CS as firms having largest leverage have lowest cost of equity. So, the researcher suggested the company trying to maximize the shareholders wealth.

Maharjan, A. (2009), A study on *"Capital Adequacy and Loan Classification of Commercial Bank in Nepal"* concludes that the thesis has been concentrated on the capital and capital relates items of Machhapuchhre Bank Ltd., Kumari Bank Ltd. and Everest Bank Ltd., certain findings based on the analysis conducted under the analytical section are going to be revealed in the following section:
It was found that the capital fund of MBL, KBL and EBL are largely depending upon share capital. Capital fund of MBL, KBL and EBL seems to be growing consistently. Capital fund of MBL is higher than that of EBL and KBL. MBL has total capital fund of Rs 136 million in FY 2003/04 which has been increased by 30% in FY 2007/08 making a total capital fund of Rs. 715 million. Whereas KBL has total capital fund of Rs. 350 million in FY 2003/04 which has been increased by 25% in FY 2007/08. The capital fund of EBL has Rs. 610.2 in FY 2003/4 which has been increased by 1391.3 in FY 2007/08.

Capital Adequacy ratio is the primary tool to analyze the capital fund of a bank. It is based on total risk-weighted assets of the bank. MBL, KBL and EBL are successful in maintaining capital adequacy as prescribed by NRB. In the FY 2003/04, all three banks have higher capital adequacy ratio than prescribed ratio i.e., MBL has capital adequacy ratio is 10.68%, KBL has 26.79% and EBL has 12.90% while the requirement of norms directed by NRB was only 9%. However, in the FY 2005/06 MBL has capital adequacy ratio of 17.82%, KBL has 13.41% and EBL has 11.07% while minimum requirement as per directives is 11%. All three banks are successfully maintaining their capital adequacy in every year.

2.4 THEORITICAL FRAMEWORK

The primary and independent variable that will be considered in this research study is the Capital Fund of the NIC Bank. The variables, which are supposed to be dependent, are Deposit and Credit of the bank.

There are relationships between Deposit and Credit. The significance of the relationship will be tested in the analytical chapter i.e. Chapter 4. The positive correlation is expected in the relations. The higher the Deposit, the higher the chances of providing more Credits as well.

2.5 RESEARCH GAP

Earlier studies dealt about NRB Directives as a whole and generalized the matter about the objectives, purpose and impact of the directives to the commercial banks and financial institutions. Very few of them have gone specific about capital adequacy norms but none of them have written over two phases of the capital adequacy norms taking NIC Bank in specific. So, this study is conducted to make a specific review of capital adequacy norms with a specific case of NIC Bank. It may be the case that the bank is not very old, so, many studies regarding this bank have not been made compared to other elder commercial banks. As such, this study might be a novelty one with reference to the study of the capital adequacy norms of NIC Bank.

Directives for Financial Institutions has been issued as applicable from FY 2063/64, so, it can be said that this study should be new one incorporating the capital adequacy norms of such new directives. The study is focused on capital adequacy norms fulfilled by the bank and its impact upon it. The study has also reviewed few important items like Capital Fund, Deposit and Credit, which have important role to play in the capital adequacy requirements. Moreover, the study has incorporated the views and opinions of the bank officials with the help of questionnaires regarding capital adequacy requirements set by NRB. The study certainly gives clear picture of the compliance of the capital adequacy norms by NIC Bank and its impact on the bank with reference to the analytical study of Capital Fund, Deposit and credit.

CHAPTER 3

RESEARCH METHODOLOGY

Research is search or study about phenomena. The research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. Research Methodology can be understood as a science of studying how research 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

Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question. Selection of appropriate research designing is necessary to meet the objectives of the study. This study research attempted to analyze the Capital Funds of commercial banks taking the data and information of NIC Bank Ltd. (NIC). The research design was basically focused on analytical study. Ratio Analysis, Correlation Analysis and Comparative Analysis of the ratios have been done for analyzing the research. The research examined the relationship of Capital Fund to various other stakes, like Deposits, Credits, etc.

3.2 POPULATION AND SAMPLE

There are total 32 commercial banks presently operating in Nepal. Collecting the data of these entire commercial banks is not possible. Hence, NIC Bank Ltd. has been selected as the sample population for the study using judgemental sampling method based on the given factors:

1. The bank has recently been certified under the upgraded ISO 9001:2008 standards for the bank's quality system on commercial banking activities for the first time in Nepal.
2. As well as the bank has also been awarded the "Bank of the year 2007- Nepal" by the world-renowned financial publication of the Financial Times, U.K. – The Banker.

11 bank officials of NIC Bank were selected as the respondents out of 66 officials by using judgemental sampling. A research questionnaire was designed for interviewing. (See Appendix- A)

3.3 DATA COLLECTION PROCEDURE

The data and information are collected from both the primary and secondary sources. For the primary information, questionnaire was used. The research interview, questionnaire was set for bank officials.

For the collection of secondary data and information, Unified Directives of Nepal Rastra Bank, Annual Reports of NIC Bank, various publications of Nepal Rastra Bank, magazines, the other publications and the internet (website www.nrb.org.np) have been used. Also, for other related information, various books and periodicals have been referred from library and some that the researcher self has.

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 research study, the following financials tools and statistical tools are used.

3.4.1 FINANACIAL TOOLS

3.4.1.1 RATIO ANALYSIS

Ratio Analysis is the best tool 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 NIC Bank.

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:

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

To measure the adequacy of Core Capital:

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

(b) 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:

$$\frac{\text{Total Credit}}{\text{Total Deposit collected}} \times 100\%$$

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 analyse the data:

a) Karl Pearson Correlation Analysis:

The relation between two variables is correlated by Karl Pearson's Correlation Co-efficient. 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,

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

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

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

This chapter deals with the presentation, analysis and interpretation of relevant data and information of NIC Bank. Also, the analysis and interpretation of the information and data produced from questionnaire is also contained in this chapter. To obtain best result, the data and information have been analyzed according to the research 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 and Ratio Analysis

(2) Statistical Analysis

(3) Impact of Capital Adequacy Norms

(4) Study of response of Officials of NIC Bank

4.1 PRESENTATION OF DATA AND RATIO ANALYSIS

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 NIC Bank has been illustrated hereinafter.

4.1.1.1 CAPITAL FUND OF NIC BANK

The capital funds of NIC Bank have been tabulated in Table 4.1 which shows the capital fund of the bank over the period of five fiscal years, i.e., from FY 2063/64 to FY 2067/68.

Table 4.1

Capital Fund of NIC bank

Rs. in millions

Fiscal Year	Core Capital	Supplementary Capital	Total Capital Fund
2063/64	911.80	296.80	1208.60
2064/65	1293.75	319.90	1613.63
2065/66	1649.01	305.93	1954.94
2066/67	1750.46	260.10	2010.56
2067/68	1956.13	267.65	2223.78

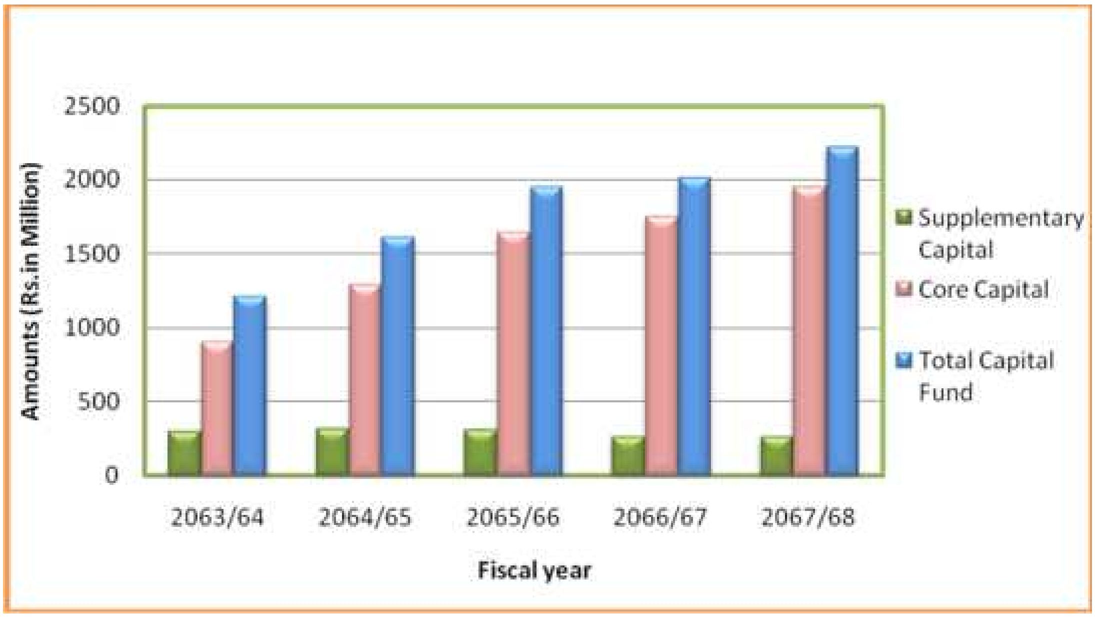
(Source: Annual Reports of NIC Bank)

In the last five years period, the Capital Fund of NIC has seen steady growth. The Core Capital of the bank has seen consistent growth except FY 2065/66, where a sharp increment has been observed, whereas fluctuation has been seen in the Supplementary Capital with gradually increment until the FY 2064/65 and slowly decrement has occurred. The Capital Fund of NIC consisted of Core Capital of Rs. 911.80 million and Supplementary Capital of Rs. 296.80 million totalling Rs. 1208.60 million at the end of the FY 2063/64. The Capital Fund has increased approximately double, Rs. 1,956.13 million consisting of Core Capital and Rs. 267.65 million of Supplementary Capital totalling Rs. 2223.78 million by the end of the FY 2067/68.

The same information can be depicted in the chart below.

Figure 4.1

Capital Fund of NIC bank



The Figure 4.1 shows the growing trend of Capital Fund of the bank during the five fiscal years. The trend shows that Core Capital is in increasing trend but Supplementary Capital is in increasing order till FY 2064/65 and then after is in decreasing order. The Core Capital has risen dramatically during the FY 2065/66 resulting into similar rise in the Capital Fund.

The increment in the Capital Fund shows that NIC 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.

4.1.2 RISK – WEIGHTED ASSETS

The Risk-Weighted Assets are derived by calculating the amount from the respective balance sheet and off-balance sheet items with the prescribed weightage. The assets are categorized into five types while assigning weightage to them. NRB has assigned weightage of 0%, 10%, 20%, 50% and 100% according to their nature of risk bearing, which is based on the standard of Basel Committee.

The Risk-Weighted Assets of NIC Bank has been illustrated in Table 4.2 (I). The table shows Risk-Weighted Assets of the bank over the period of last two years from FY 2063/64 to FY 2064/65.Thereafter NIC Bank has been used new Capital Adequacy Framework (Updated July, 2008) to calculate total risk weighted assets, which is illustrated in Table 4.2 (II).

Table 4.2 (I)

Risk-Weighted Assets of NIC Bank

Rs. in Millions

Fiscal Year	Balance Sheet Items	Off-Balance Sheet Items	Total Risk Weighted Assets
2063/64	9566.50	339.10	9905.60
2064/65	11824.30	496.90	12321.20

(Source: Annual Reports of NIC Bank)

The Total Risk Weighted Assets of NIC Bank has been illustrated in Table 4.2(II). The table shows Total Risk Weighted Assets of last three years FY 2065/66 to FY 2067/68.

Table 4.2 (II)

Risk Weighted Assets of NIC Bank

Rs. in Millions

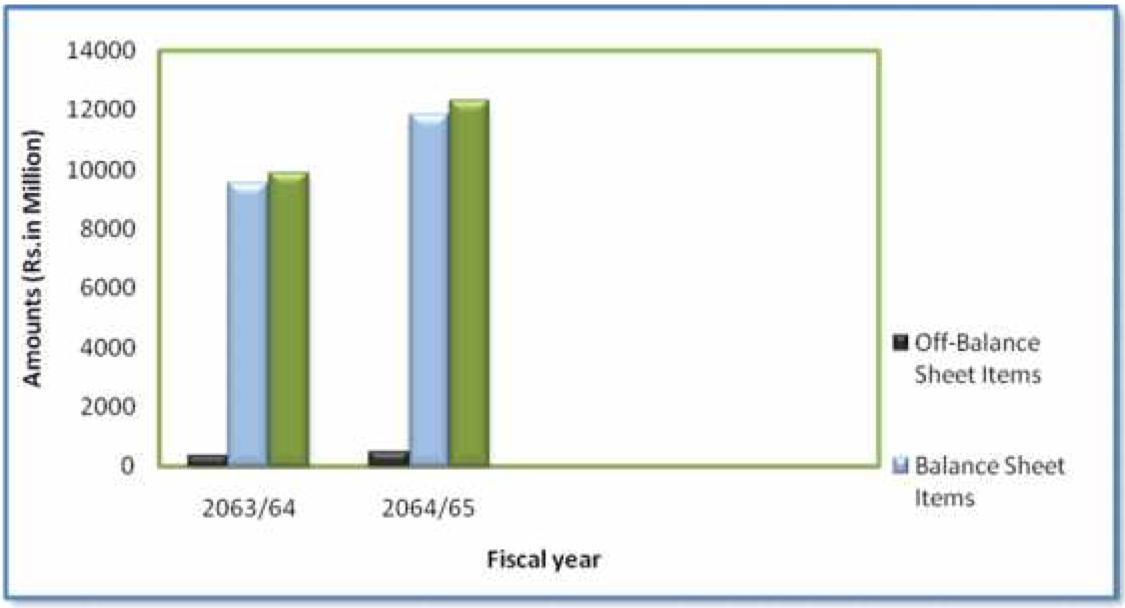
Particulars	Current Year 2067/68	Previous Year 2066/67	Fiscal Year 2065/66
A) Risk Weighted Exposure for Credit Risk	15898.05	14466.35	15021.35
B) Risk Weighted Exposure for Operational Risk	1126.73	851.16	647.08
C) Risk Weighted Exposure for Market Risk	55.13	87.78	73.18
Adjustment under pillar II Add: 1% of total Risk Weighted Exposure as per NRB inspection	170.79	154.05	-
Total Risk Weighted Exposure (A+B+C) After adjustment	17250.71	15559.34	15741.61

(Source: Annual Reports of NIC Bank)

The TRWA of the bank has been increasing gradually except in the FY 66/67. Similarly Balance Sheet Items and Off-Balance Sheet Items in the last two years FY 2063/64 and FY 2064/65 also have been increasing. The TRWA of the bank was Rs. 9905.60 million during FY 2063/64 with Balance Sheet Items amounting to Rs. 9566.50 million and Off-Balance Sheet Items amounting to Rs. 339.10 million. In the last fifth year, the TRWA is Rs.17250.71 million. The same information can be depicted in the chart below:

Figure 4.2

<u>Risk Weighted Assets of NIC Bank</u>



The Figure 4.2 shows the increasing trend of TRWA in the two years period from FY 2063/64 to FY 2064/65. The trend is similar with Balance Sheet Items and Off-Balance Sheet Items all are increasing trend.

4.1.3 CAPITAL ADEQUACY RATIO OF NIC BANK

Capital Adequacy Ratio shows the strength of a bank. The calculated Capital Adequacy Ratio is shown in the Table 4.3 for the FY 2063/64 to FY 2067/68.

Ratio of Total Capital Fund as:

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

Ratio of Core Capital Fund as:

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

Ratio of Supplementary Capital Fund as:

$$\frac{\text{Supplementary Capital}}{\text{TRWA}} \times 100\%$$

By using this formula we can get:

Table 4.3

Capital Fund used by the Bank

Fiscal Year	Percentage of Core Capital	Percentage of Supplementary Capital	Percentage of Total Capital	CAR of NRB Total Capital Fund	CAR of NRB Core capital
2063/64	9.20%	3.00%	12.20%	11%	5.5%
2064/65	10.50%	2.60%	13.10%	10%	6%
2065/66	10.48%	1.94%	12.42%	10%	6 %
2066/67	11.25%	1.67%	12.92%	10%	6 %
2067/68	11.34%	1.55%	12.89%	10%	6%

(Source: Annual Reports of NIC Bank)

The Capital Adequacy Ratios show that the bank has been able to comply with the requirements of NRB consistently.

In the FY 2063/64, the bank has Total Capital Fund at 12.20% of Risk Weighted Assets with the NRB requirement of 11% and this has increased to 13.10% in FY 2064/65. The Total Capital Fund of the bank was 12.42%, 12.92% and 12.89% during the FY 2065/66, 2066/67 and 2067/68 respectively. The NRB requirement was

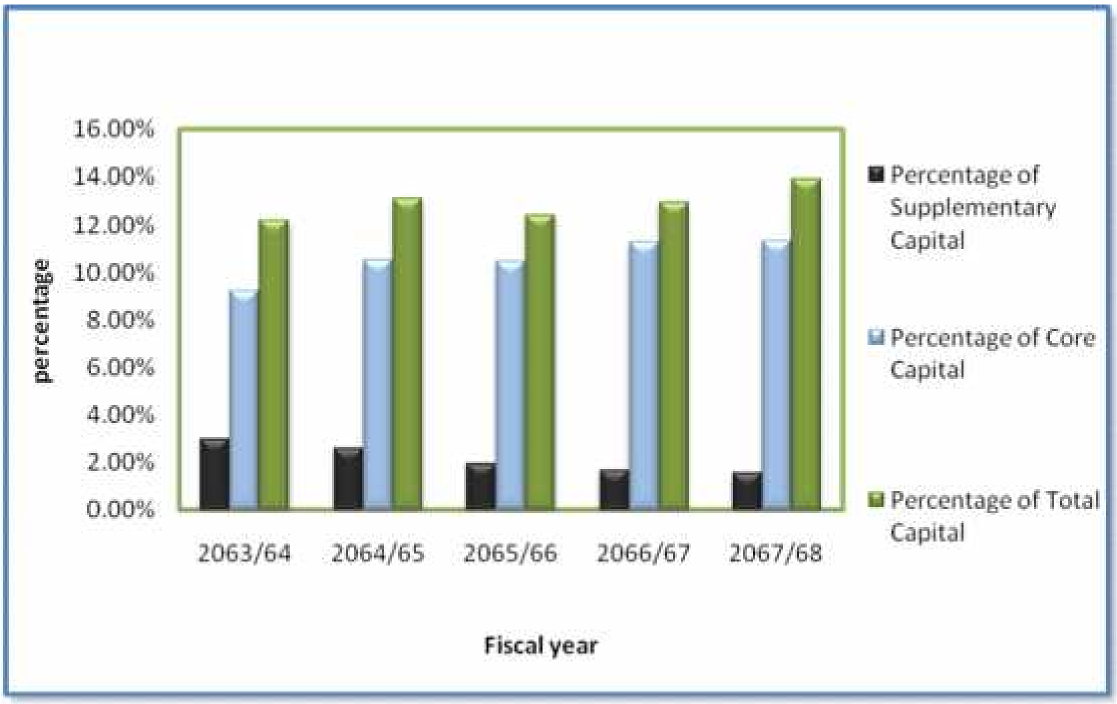
6% Core Capital and Total Capital Fund 10% of Risk Weighted Assets and they have been passably complied with.

The Capital Adequacy Ratio of the bank is in increasing trend. It is obvious, as transactions 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 increase often and the performance of the bank (i.e. earning of profit) has major role to play to comply with the NRB requirements. As such, it is evident that NIC Bank has been performing well enough to comply with the NRB requirement without failure at any point of time.

The same information can be depicted in the chart below.

Figure 4.3

<u>Capital Fund used by the NIC Bank</u>



The Figure 4.3 displays Total Capital Fund at 12.20% of Risk Weighted Assets in FY 63/64 and 12.89% in FY 67/68. Percentage of Total Capital Fund is in fluctuation trend over the study period. But Percentage of Supplementary Capital has gradually decreased over the five years period. Core Capital was 9.20% in FY 63/64 and 11.34% in FY 67/68.

4.1.4 DEPOSIT, LOAN AND ADVANCES ANALYSIS OF NIC BANK

Being the main function of a commercial bank, every commercial bank collects deposit from general public. Verma and Malhotra (1993) have mentioned that a commercial bank has usually access to three sources of fund: capital fund, deposits and borrowings.

It is clear that NIC Bank could not remain in the business without collecting deposits. The bank has its own policies to lure deposits from general public. In this matter, NIC Bank has few successful schemes like NIC Life Saving Accounts and NIC Shikshya Kosh. These products have really played important role in the swift collection of deposit for the bank. The main source of income of a bank is interest income from extending credit facility to its clients. Most of the funds available in the bank either in the form of capital or deposit is utilized for providing credit facility. The commercial banks are inspired with the motive of gaining profit and to fulfil this objective, they should widely manage and improve banking sector. Much attention should be paid to the extension of the quality of the credit facility although quantity of the facility should also be considered. Being a commercial bank, one of the prime functions of the NIC bank is to provide credit facility.

The deposit, loan and advances for last five fiscal years can be viewed in the Table 4.4.

Table 4.4

Deposit, Loan and Advances of NIC Bank

Rs. In Million

Fiscal Year	Deposit Collection	Loan and Advances	Credit/Deposit Ratio
2063/64	10068.23	9128.65	90.67%
2064/65	13084.70	11465.30	87.62%
2065/66	15580.00	13916.00	89.32%
2066/67	15970.00	12929.00	80.96%
2067/68	18394.00	15166.00	82.45%

(Source: Annual Reports of NIC Bank)

The table shows that NIC Bank has been gradually increasing the deposit collection apart from FY 2066/67 when deposit collection has little bit increased as compared to that of the previous year.

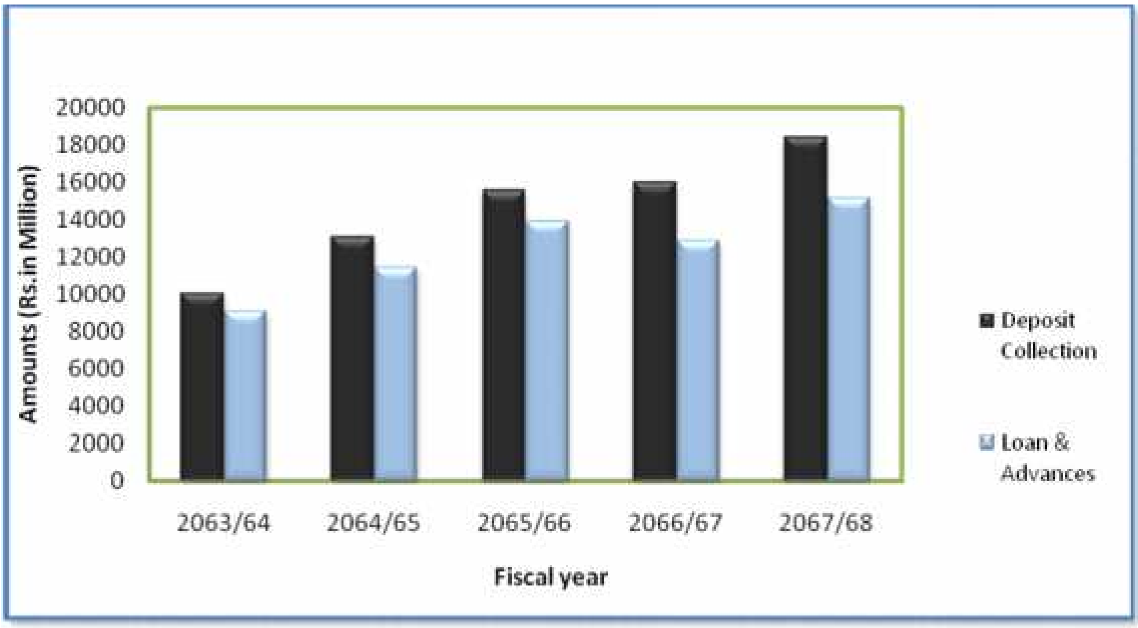
In the FY 2063/64, the bank was able to collect Rs. 10,068.23 million of deposit. The collection increased steadily till the FY 2065/66 but in the end of FY 2066/67 the deposit collection increased tiny bit, which is Rs. 15,970 million. In the end of FY 2067/68 the deposit increased steadily to Rs.18,394 million.

The Table 4.4 shows gradual increment in the flow of credit by NIC Bank during past 3 years and at the fourth year it has decreased. The bank was able to flow Rs. 9,128.65 million of loans during the year 2063/64, credit flow had seen increment till the end of FY 2065/66 i.e. Rs. 13,916.00 million. But in the FY 2066/67 the lending of the bank declined at Rs. 12,929.00 million. In the end of FY 2067/68 the credit flow has increased i.e. Rs.15,166.00 million.

The deposit, loan and advances made by NIC Bank have been illustrated in the figure below.

Figure 4.4

Deposit, Loan and Advances of NIC Bank



The Credit/Deposit (CD) Ratio is a major tool to examine the liquidity of the bank. It also measures the performance of the bank in terms of resources utilization irrespective of the quality of utilization. Higher the CD Ratio better is the performance regarding deposit utilization whereas such high ratio may not be favoured by the depositors as in case of improper investment, the depositor's fund may be on risk.

Ratio of Credit to Deposit as:

$$\frac{\text{Total Credit}}{\text{Total Deposit}} \times 100\%$$

The Table 4.4 shows a fluctuating CD Ratios of the bank in the past five years period, beginning from FY 2063/64 to FY 2067/68. The ratio has been ranging from 90.67% to about 82.45% with fluctuations in between years. The ratio was 90.67% during FY 2063/64 then fell to 87.62% during FY 2064/65 and after that the ratio has increased to 89.32% with very negligible increment during FY 2065/66, and then after next year has decreased to 80.96% in FY 2066/67. In FY 2067/68 the ratio has increased to 82.45%.

4.2 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.

4.2.1 CORRELATION CO-EFFICIENT

To test the relationship between deposit, loan and advances the correlation coefficients have been calculated by using Karl Pearson's correlation co-efficient. The calculated values of correlation co-efficient are presented under:

$\therefore$ Correlation co-efficient of Deposit on loan and advances, $r = 0.9518$.

The calculated correlation co-efficient between Deposit, Loan and Advances are positive. Therefore, it can be said that Deposit and Credit components of a bank are positively correlated with each other. Here, we can see that co-efficient is near to 1 which indicates that the correlations seem to be nearly perfectly positive. We can say that the increase in deposit causes the increase in loan and advances.

4.3 CHANGES IN CAPITAL ADEQUACY NORMS ON NIC BANK

4.3.1 STUDY OF CHANGES IN CAPITAL FUND

The Capital Adequacy Norms have greater impact on changes in capital fund of commercial banks. Table 4.1 has already presented the components of capital that are included in capital fund of NIC Bank.

The Table 4.5 shows the increment in the capital funds of the bank in the form of amount and percentage both.

Table 4.5

Changes in Capital Fund of NIC Bank

(Rs. in million)

Fiscal Year	Total Capital Fund	Amount Increased	Percentage Increment
2063/64	1208.60	-	-
2064/65	1613.63	405.03	33.51%
2065/66	1954.94	341.31	21.15%
2066/67	2010.56	55.62	2.85%
2067/68	2223.78	213.22	10.61%

(Source: Annual Reports of NIC Bank)

At the beginning of the study period, the bank had total capital fund of Rs. 1208.60 million which has been increased up to Rs. 2223.78 million by the end of the FY 2067/68. Both the increment in percentage and amount are seen fluctuating. The rate of increments in amount is variable as the increment during 2064/65 was Rs. 405.03 million followed by decrement of Rs. 341.31 million in the following year. A dramatic decrease of 55.62 million was observed during FY 2066/67 but there was a sharp increment of Rs.213.22 during the FY 2067/68. Similarly, the increment rate in percentage during FY 2064/65 was 33.51%, the increment ratio slowed down to

21.15% and 2.85% during FY 2065/66 and FY 2066/67 respectively. In the end of FY 2067/68 the increment rate in percentage was 10.61%.

4.3.2 STUDY OF CHANGES IN PAID UP CAPITAL

It has been observed in Table 4.6 that the capital base has been increased to meet the NRB requirements. Since, the capital adequacy norms require that the core capital should at least be 50% of the capital base; the bank has been trying to increase its core capital. The major portion of the core capital is paid up capital, so, the table 4.6 shows the changes in the paid up capital of the bank in the five years period beginning from 2063/64 to 2067/68.

Table 4.6

Changes in Paid Up Capital of NIC Bank

(Rs. in million)

Fiscal Year	Paid Up Capital	Amount Increased	Percentage Increment
2063/64	660.00	-	-
2064/65	943.90	283.90	43.02%
2065/66	1141.00	197.10	20.88%
2066/67	1312.00	171.00	14.99%
2067/68	1312.00	-	-

(Source: Annual Reports of NIC Bank)

Table 4.6 shows the capital adequacy requirements of NRB and condition of NIC Bank and it is very clear that the bank is always near about of the capital adequacy requirements of NRB, so, major changes in Paid Up Capital has been observed in every year. It has always been a major disadvantage that the bank has not been established with strong capital base and thus, has to always increase it to meet the NRB requirements. Thus, the impact of the norms caused the increment in paid-up capital of the bank. During FY 2064/65, 2065/66, 2066/67 paid up capital was increased by 43.02%, 20.88% and 14.99% respectively. During FY 2067/68 paid up capital remained unchanged.

4.4 STUDY OF RESPONSE OF OFFICIALS OF NIC BANK

Regarding the impact of capital adequacy norms, a simple questionnaire was developed. The questionnaire revealed the opinions that bank officials held towards the capital fund and capital adequacy. A total number of eleven officials participated in the queries.

Question No. 1: Do you think it is necessary that a central bank should issue capital adequacy norms for commercial banks?

Table 4.7
Response of Officials on necessity of capital adequacy norms

Question No. 1	No. of Responses	Percentage
a) Yes	11	100.00%
b) No	0	0.00%

(Source: Officials of NIC Bank)

In this question, 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.

Question No. 2: Do you think the present capital adequacy ratio prescribed by NRB is justified?

Table 4.8

Response of Officials on present capital adequacy ratio

Question No. 2	No. of Responses	Percentage
a) Yes, it is perfect	7	63.64%
b) No, it is high	4	36.36%
c) No, it is not adequate	0	0.00%

(Source: Officials of NIC Bank)

In this question, the officials found to be disagreeing. Out of eleven, 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. It can be illustrated by pie-chart also, which is shown below:

Figure 4.5

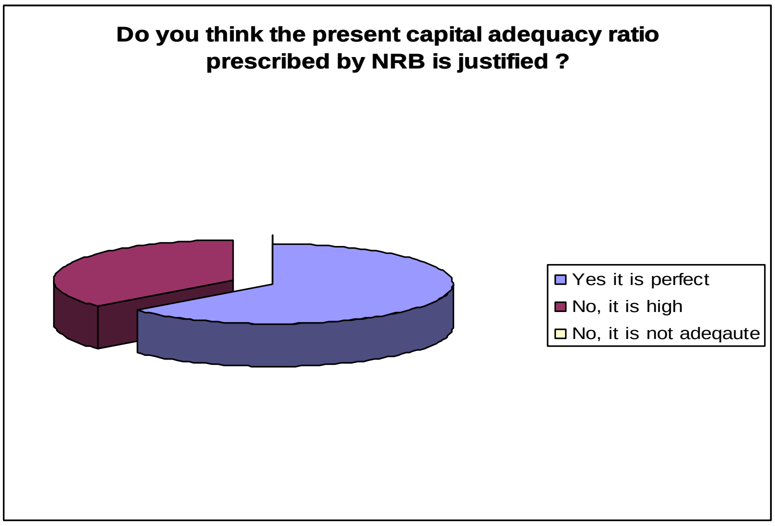


Fig.4.5 demonstrates that 63.64% of respondents are in the view that the present capital adequacy prescribed by NRB is perfect whereas 36.36% opined that it is high.

Question No. 3: Which stakeholder's interest will be safeguarded most by adequate capital fund?

Table 4.9

Response of Officials on most safeguarded interest

Question No. 3	No. of Responses	Percentage
a) Depositor’s Interest	11	100.00%
b) Shareholder’s Interest	0	0.00%
c) Employees’ Interest	0	0.00%
d) Others	0	0.00%

(Source: Officials of NIC Bank)

All the respondents answered that the depositor's interest should be safeguarded most because without depositor no any banks can imagine its future

Question No. 4: Do you think the revision in capital adequacy ratio is necessary from time to time?

Table 4.10

Response of Officials on necessity of revision in CAR

Question No. 4	No. of Responses	Percentage
a) Yes, it is necessary	11	100.00%
b) Not at all	0	0.00%

(Source: Officials of NIC Bank)

All the respondents said that it is necessary to bring changes in capital adequacy norms from time to time.

Question No. 5: The capital adequacy ratio is based on risk-weighted assets. Do you think the weightage prescribed by NRB on the on and off-balance sheet items are appropriate?

Table 4.11

Response of Officials on weightage prescribed by NRB

Question No. 5	No. of Responses	Percentage
a) Yes, it is perfect	0	0.00%
b) Just OK	7	63.64%
c) No, it needs revision	4	36.36%

(Source: Officials of NIC Bank)

Seven respondents answered that the weightage on risk weighted assets prescribed by NRB are just OK while others said that it needs revision.

It is shown by pie-chart below:

Figure 4.6

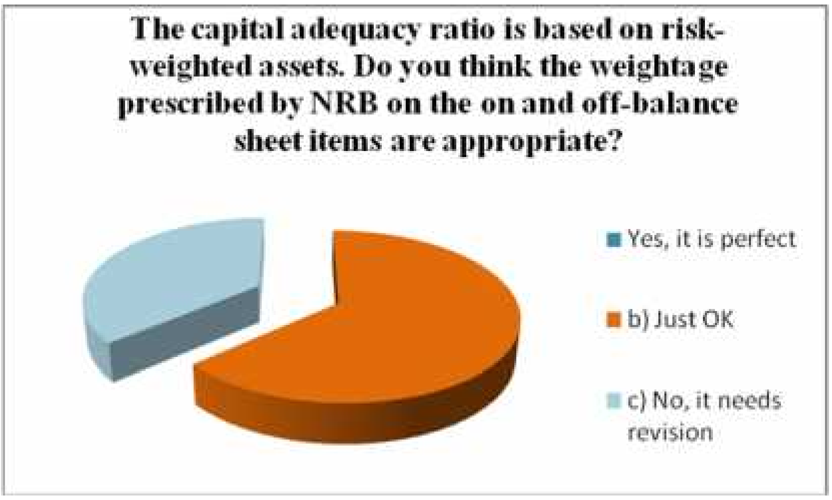


Fig.4.6 demonstrates that 63.64% of the respondents are in the view that the weightage prescribed by NRB on the on and off –balance sheet items are just ok and 36.36% have stated that it needs revision.

Question No. 6: In your opinion, which of the following steps is appropriate for your bank to follow to cope for the compliance of capital adequacy ratio?

Table 4.12

Response of Officials on appropriate steps to follow

Question No. 6	No. of Responses	Percentage
a) We can increase core capital	0	0.00%
b) We can increase supplementary capital	0	0.00%
c) We can increase both components of capital hand in hand	11	100.00%
d) Others	0	0.00%

(Source: Officials of NIC Bank)

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 MAJOR FINDINGS

Financial institutions like banks are the replica of modernization of the society and play a vital role in the sustainable development and economic growth of the country. Commercial banks furnish necessary capital needed for trade and commerce for mobilizing the dispersed saving of the individuals and institutions. The primary functions of commercial banks are deposit collection and utilization of funds. Commercial banks collect a large amount of deposits from the general public and utilize them in potential sectors. Capital is one of the most important components for an organization. It is obvious that no organization can exist without capital. Although the banks are a major source of capital, they also have to raise capital to run businesses. Most importantly, the bank has an obligation towards its depositors therefore it should hold minimum required capital i.e. adequate capital to safeguard the interest of depositors.

This research aimed at studying capital adequacy norms for commercial banks set by NRB with primary focus on NIC bank. NRB, being a regulatory body of the nation, has the responsibility to give special attention to the interest of depositors; NRB has issued various directives to regulate commercial banks and other financial institutions. The directive number one includes the requirement of maintaining capital fund to the prescribed ratio. The norms basically emphasized on the basic requirement of the capital fund that commercial banks should possess.

The study showed that capital fund of the bank is increasing which implies that the bank is trying to increase its capital base to comply with the requirements of the central bank in capital adequacy norms for commercial banks.

Beside this, the major findings are summarized mainly based on presentation, interpretation and analysis of five years previous data, which are as follows:

Major Findings of Secondary Data:

- The average Core Capital, Supplementary Capital and capital fund of the bank are Rs.1512.23, Rs.290.16 and Rs.1802.30 million respectively.
- The average Total Risk Weighted Assets is Rs.14155.69 million.
- The average Capital Adequacy Ratio for Core Capital and Total Capital Fund are 10.55% and 12.71%.
- The average Deposit Collection, Loan and Advance are Rs.14619.39 and Rs.1250.99 million respectively.
- The average Credit/Deposit ratio of the bank is 85.46%.
- Correlation co-efficient of Deposit on loan and advances is 0.9518.
- The average Capital Fund Increment of the bank is 14.82%.
- The average paid up capital increment of the bank is 17.78%

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

This research is aimed at studying capital adequacy for commercial banks set by NRB with case study of NIC Bank. Raising and utilization of funds are the primary functions of commercial banks. As such, commercial banks collect a large amount of deposits from general public. Capital must be sufficient to protect a bank's depositors and counterparties from the risks like credit and market risks. Otherwise, the banks will use all the money of depositors in their own interest and depositors will have to suffer loss.

Being the central bank of Nepal, NRB has the responsibility to give special attention to the interest of depositors. 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 NIC Bank. The study showed that the capital fund of NIC Bank passably meet the requirement of capital adequacy norms. Capital Adequacy ratios have been calculated to check the adequacy as per the norms. CD Ratio, which is the key ratio of commercial banks, has also been checked. Analyses have been done to check the relationship of deposit with credit.

The thesis studies the responses of 11 bank officials received through research interview.

5.2 FINDINGS

The thesis has been concentrated on the capital and capital related items of NIC Bank. The findings of the study are as follows:

Capital Fund: Capital Fund of NIC has seen steady growth. The Core Capital of the bank has seen consistent growth except FY 2065/66, where a sharp increment has been observed, whereas fluctuation has been seen in the Supplementary Capital. The

Capital Fund of NIC consisted of Core Capital of Rs. 911.80 million and Supplementary Capital of Rs. 296.80 million totalling Rs. 1208.60 million at the end of the FY 2063/64. The Capital Fund has increased approximately to double Rs. 1956.13 million consisting of Core Capital and Rs. 267.65 million of Supplementary Capital totalling Rs. 2223.77 million by the end of the FY 2067/68.

On review of the financial statements of the FY 2064/65, it was clearly seen that major reason for increment in capital fund was mainly due to huge portion of proposed bonus shares and general reserve fund. These are the components of core capital and thus, resulted into sudden increment in the capital fund. The reason for less increment in compare to previous year in capital fund during FY 2065/66 was due to the less issuance of Unsecured Subordinated Term Debt.

Capital Adequacy: It is found that the bank is in quite hard position in maintaining capital adequacy as prescribed by NRB. The bank had capital adequacy ratio of 12.20% during FY 2063/64 against the NRB requirement of 11%. In the years followed, the bank had capital adequacy ratios of 13.10%, 12.42%, 12.92% and 12.89% against the NRB requirement of 10%.

The Capital Adequacy Ratio of the bank is in increasing trend. It is obvious, as transactions 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 increase often and the performance of the bank (i.e. earning of profit) has major role to play to comply with the NRB requirements. As such, it is evident that NIC Bank has been performing well enough to comply with the NRB requirement without failure at any point of time.

Risk Weighted Assets: The risk weighted assets is the most significant component to be considered while studying the capital adequacy norms. The TRWA of the bank has been increasing gradually except in FY 66/67. Balance Sheet Items and Off-Balance Sheet Items in the last two years FY 2063/64 and FY 2064/65 has been increasing. The TRWA of the bank was Rs. 9905.60 million during FY 2063/64 with Balance Sheet Items amounting to Rs. 9566.50 million and Off-Balance Sheet Items amounting to Rs. 339.10 million. In the last fifth year, the TRWA is Rs.17250.71 million.

It is really commendable performance of the bank to cope with the increasing risk weighted assets and maintain the prescribed capital fund as directed by NRB.

Credit/Deposit (CD) Ratio: CD ratio is one of the most important ratios for commercial banks. This ratio shows how effectively the bank has been able to utilize its available fund collected from depositors. The ratio has been ranging from 90.67% to about 82.45% with fluctuations in between years. In an average, the bank has been able to utilize 4/5 portion of the depositors fund in the form of Credit. The ratio was 90.67% during FY 2063/64 and after that the ratio has increased with very negligible increment during FY 2065/66, and then after next year has decreased to 80.96% in FY 2066/67. In FY 2067/68 the ratio has increased to 82.45%.The ratios display that funds have been underutilized. The bank should be able to utilize more funds in the form of credit to generate revenue for it. But the quality of the credit should also be well considered for better financial performance of the bank.

Statistical Analysis: The correlation co-efficient between deposit and credit of the bank showed that it is correlated. The co-efficient is more than 0.9 which is near to 1. The co-efficient nearest to 1 show the relationship to be more perfect.

Impact Analysis: It is observed that the bank has been complying with the requirement of the capital adequacy norms of NRB. The bank has been increasing its capital fund to meet the capital adequacy requirement. The officials of the bank feel that NRB, as a central bank, should set the capital adequacy norms. They 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 ratios are reasonable and some say that it is not perfect. However, the majority of them opine that these norms are acceptable.

5.3 CONCLUSION

Commercial banks of Nepal are bound by the NRB Directives and are currently bound by 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 requirement of capital adequacy as stated by the 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.

The bank under study, NIC Bank is found to be successful to comply with requirement of capital adequacy norms. Anyhow the bank is meeting the capital adequacy requirements. However, some bank officials are not satisfied with the provisions.

The CD ratio of the bank is average and needs to be improved immediately. Although the bank is successful to meet the capital adequacy requirement, it seems to be ineffective to fulfil other capital and deposit ratios which are also very much important in regard of safeguarding the money of the depositors. The bank should highly focus on optimum utilization of the deposits because underutilization of deposit means bearing additional cost as deposits do not come for free.

The correlation co-efficient between deposit and credit are found to be positive and near to perfect correlation.

.

5.4 RECOMMENDATION

After thorough study of the research, the following recommendations have been proposed for consideration by the concerned persons:

i. The capital fund of the bank 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 banks should be able to use some sort of debt financing depending upon its viability. It is notable that the bank has started the debt financing. But still debt financing is an unaccustomed source of financing for commercial banks in Nepal.

ii. CD ratio of the bank is average. This showed that the bank has not been effectively using the funds collected from depositors. It is recommended that the bank should concentrate more on credit and investment. The bank shall expand more branches in different places of the country and search investment opportunities there. More credit flow and investment are required to verge on the optimum CD ratio.

iii. The commercial banks should try to maintain appropriate CD ratios as state above. They can no way escape pointing on to the lack of the policy.

iv. While providing loans and advances, banks should keep in 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.

v. 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.

BIBLIOGRAPHY

Books:

Besis, J. (1998). ***Risk management in banking***: Chichester: John Wiley and Sons Ltd.

Bhandari, D.R. (2003). ***Banking and Insurance: Principles and Practice.*** Kathmandu: Aayush Publications.

Clark, J.(1999). ***International Dictionary of Banking and Finance***. New York: Glenlake Publishing Co Ltd and AMACOM American Management Association.

Maisel, S.J. (1981). ***Risk and capital adequacy in commercial banks.*** Chicago: The University of Chicago Press.

Pandey, I.M. (1995).***Financial Management***. New Delhi: Vikash Publishing House Pvt. Ltd.

Patheja, A. (1994). ***Financial management of commercial banks***. Delhi: South Asia Publications.

Rosenberg, J.M. (1982). ***Dictionary of banking and finance***. New York: John Wiley and Sons.

Shekhar, K.C. and Shekhar, L. (1998). ***Banking theory and practice*** (Rev. ed.). New Delhi: Vikash Publishing House Pvt. Ltd.

Verma, H.L. and Malhotra, A.K. (1993). ***Funds management in commercial banks***. New Delhi: Deep and Deep Publications.

Unpublished Thesis

Karmacharya, R.P. (2005). S***tudy on capital structure of joint-venture commercial banks and NRB Directives issued in regards to thereof.*** Unpublished Masters Degree (MBA) thesis, submitted to Central Department of Management, Tribhuvan University.

Dhakal, G. (2006). ***A comparative study of Capital Adequacy of Joint Venture Banks in Nepal Especially of Nepal Arab Bank Ltd. and Nepal Investment Bank Ltd..*** Unpublished Masters Degree (MBA) thesis, submitted to the Central Department of Management, T.U., Kirtipur, Nepal.

Maharjan, A. (2009). "***A study on Capital Adequacy and Loan Classification of Commercial Bank in Nepal- a case study of Kumari Bank Ltd., Machhapuchhre Bank Ltd. and Everest Bank Ltd.".*** Unpublished Masters Degree (MBS) thesis, Faculty of Management, T.U.

Pandey A.K. (2002). ***Nepal Rastra Bank Directives, their implementation and impact on the commercial banks- a case study of Himalayan Bank Ltd. (HBL).*** Unpublished Masters Degree (MBS) thesis, Tribhuvan University.

Sapkota, U.P. (2004), "***A study on fund mobilizing policy of Standard Chartered Bank Nepal Limited."*** Unpublished Masters Degree (MBS) thesis, Faculty of Management, T.U.

Shrestha, T.R. (2005). ***A comparative study on investment practice of joint-venture commercial banks.*** Unpublished Masters Degree (MBS) thesis, Tribhuvan University.

Shrestha, R. (2007). "***Capital Structure and Cost of Capital in selected manufacturing companies".*** Unpublished Masters Degree (MBS) thesis, Faculty of Management, T.U., Kirtipur.

Reports and Directories:

Annual Reports of NIC Bank Ltd.

Banking and Financial Statistics, 43. (2006). Kathmandu: Nepal Rastra Bank, Bank and Financial Institution Regulation Department.

Unified NRB Directives for Financial Institutions: Directive 1 to 21. (2067). Kathmandu: Nepal Rastra Bank, Banking Operation Department.

Journals:

Khatiwada, N.K. (2003, April 30 and May 7). Banking sectors reform in Nepal I and II: Implications for corporate governance. ***The Telegraph Weekly***, p.2.

Lamsal, H.R. (2001, July). NRB Directives: Bankers plea for lighter structures. ***New Business Age, 1(3)***, pp.31-35.

Pandey, L.P. (2003, June 10). NRB's effort to reform commercial banks: ***The Rising Nepal***, p.4.

Keijser and Haas (2001) "*Financial collateral and capital adequacy requirements.* *Retrieved February 20, 2007*

Internet:

Heakal, R., (2006, November). What are central banks? Retrieved February 21, 2007. from http://www.investopedia.com/articles/03/050703.asp

Strokes, J.R., (2007 February 20 and 21). Using stimulation to determine bank capital adequacy. In *Financial Engineering News*. Retrieved February 21, 2007 from http://fenews.com/fen28/siminfe.htmlhttp://www.nrb.org.np

CD-ROM:

Encyclopedia Britannica 2005: Encyclopedia Britannica, Inc., CD-ROM.

Microsoft Encarta Reference Library 2006: Microsoft Corporation., CD-ROM.

APPENDICES

APPENDIX - A

Tribhuvan University
Patan Multiple Campus
Patan Dhoka, Lalitpur

Study on **Capital Adequacy Directives and its impact on Nepal Industrial and Commercial Bank Limited**

INTERVIEW QUESTIONNAIRE FOR BANK OFFICIALS

1. **Do you think it is necessary that a central bank should issue capital adequacy norms for commercial banks?**

   ☐ Yes ☐ No

2. **Do you think the present capital adequacy ratio prescribed by NRB is justified?**

   ☐ Yes, it is perfect ☐ No, it is high ☐ No, it is not adequate

3. **Which stakeholders' interest will be safeguarded most by adequate capital fund?**

   ☐ Depositor's Interest ☐ Shareholder's Interest
   ☐ Employees' Interest
   ☐ Others (Please Specify) ……………………………………………….

4. **Do you think the revision in capital adequacy ratio is necessary from time to time?**

   ☐ Yes, it is necessary ☐ Not at all

5. **The capital adequacy ratio is based on risk-weighted assets. Do you think the weightage prescribed by NRB on the on and off-balance sheet items are appropriate?**

   ☐ Yes, it is perfect ☐ Just OK ☐ No, it needs revision

6. **In your opinion, which of the following steps is appropriate for your bank to follow to cope for the compliance of capital adequacy ratio?**

   ☐ We can increase core capital
   ☐ We can increase supplementary capital
   ☐ We can increase both components of capital hand in hand
   ☐ Others (Please Specify)
   …………………………………………………………………………………

Name of Interviewee…………………………………………………
Designation………………………………………….

APPENDIX - B

Analysis of Interview Questionnaire for Bank Officials

Question No. 1	No. of Responses	Percentage
a) Yes	11	100.00%
b) No	0	0.00%

Question No. 2	No. of Responses	Percentage
a) Yes, it is perfect	7	63.64%
b) No, it is high	4	36.36%
c) No, it is not adequate	0	0.00%

Question No. 3	No. of Responses	Percentage
a) Depositor's Interest	11	100.00%
b) Shareholder's Interest	0	0.00%
c) Employees' Interest	0	0.00%
d) Others	0	0.00%

Question No. 4	No. of Responses	Percentage
a) Yes, it is necessary	11	100.00%
b) Not at all	0	0.00%

Question No. 5	No. of Responses	Percentage
a) Yes, it is perfect	0	0.00%
b) Just OK	7	63.64%
c) No, it needs revision	4	36.36%

Question No. 6	No. of Responses	Percentage
a) We can increase core capital	0	0.00%
b) We can increase supplementary capital	0	0.00%
c) We can increase both components of capital hand in hand	11	100.00%
d) Others	0	0.00%

APPENDIX - C

Risk Weightage on On-Balance Sheet Assets

On-Balance Sheet Assets	Weightage (%)
Cash Balance	0
Gold	0
Balance at NRB	0
Investment on Government Bonds	0
Investment on NRB Bonds	0
FD Loan provided against the collateral security of own FD	0
Loan provided against the collateral security of Government Bonds	0
Accrued Interest Amount on Saving Bonds	0
Balance with national banks and financial institutions	20
FD Loan provided against the collateral security of FD of other banks and financial institutions	20
Balance with Foreign Banks	20
Money at Call	20
Loan provided against the guarantee of *Rated licensed foreign institutions	20
Investment made in *Rated licensed foreign institutions	20
Investment in Shares, Debentures and Bonds	100
Other investments	100
Loans, Advances and Bills Purchase/Discount**	100
Fixed Assets	100
Net Interest Amount Receivable (Total Interest Receivable-Interest from Saving Bonds-Interest Suspense)	100
Other Assets (Other than Advance Tax Deposit)	100

Notes:

***** For the purpose, banks listed in **Top Thousand World Banks** published every year in July by **'The Banker'** from United Kingdom.
Banks that do not come under above listing should be provided the risk weightage of 100%

****** Loans other than those provided against FD, NRB Bonds, Government Bonds and Guarantee of Internationally Listed banks

APPENDIX - D

Risk Weightage on Off-Balance Sheet Items

Off-Balance Sheet Assets	**Weightage (%)**
Bills Collection	0
Forward Foreign Exchange Contract	10
Guarantee having maturity period less than 6 months (Full Amount)#	20
Guarantee issued against Counter Guarantee of Rated* Licensed Institutions	20
Guarantee having maturity period of more than 6 months#	50
Bid Bond, Performance Bond and Underwriting related liabilities	50
Advance Payment Guarantee	100
Financial and Other Guarantee	100
Irrevocable Loan Commitment	100
Contingent Liability related to Income Tax	100
All Other Contingent Liabilities including Acceptance	100

Notes:

* For the purpose, banks listed in **Top Thousand World Banks** published every year in July by **'The Banker'** from United Kingdom.
Banks that do not come under above listing should be provided the risk weightage of 100%

\# To assess the maturity period of Guarantee, the date from which the Guarantee has been opened should be considered

APPENDIX - E

Table of Capital Fund (Directives Form No. 1)

Particulars	Previous Quarter	This Quarter
(A) Core Capital 1) Paid Up Capital 2) Share Premium 3) Irredeemable Preference Shares 4) General Reserve Fund 5) Accumulated Profit/Loss (Up to PY) 6) Profit/Loss (Current Period) 7) Capital Redemption Reserve Fund 8) Capital Adjustment Reserve 9) Other Free Reserves **Less:** - Goodwill - Investment over the prescribed limit - Fictitious Assets - Investment made in shares of company having financial interest		
(B) Supplementary Capital 1) General Loan Loss Provision 2) Assets Revaluation Reserve 3) Hybrid Capital Instruments 4) Unsecured Subordinated Term Debt 5) Exchange Revaluation Reserve 6) Additional Loan Loss Provision 7) Investment Adjustment Reserve		
(C) Total Capital Fund (A+B)		
(D) Minimum Capital Fund to be maintained on the basis of Risk Weighted Assets Capital Fund (……………. percentage) Core Capital (……………..percentage)		
Capital Fund (Excess/Deficit) (by…………percentage) Core Capital (Excess/Deficit) (by…………percentage)		

APPENDIX - F

Table of Risk Weighted Assets (Directives Form No. 2)

(Rs. in thousand)

On-Balance-Sheet Assets	Weight	Previous Quarter		This Quarter	
		Amount	Risk Weighted Asset	Amount	Risk Weighted Asset
Cash Balance	0				
Gold	0				
Balance at NRB	0				
Investment on Government Bonds	0				
Investment on NRB Bonds	0				
FD Loan provided against the collateral security of own FD	0				
Loan provided against the collateral security of Government Bonds	0				
Accrued Interest Amount on Saving Bonds	0				
Balance with national banks and financial institutions	20				
FD Loan provided against the collateral security of FD of other banks and financial institutions	20				
Balance with Foreign Banks	20				
Money at Call	20				
Loan provided against the guarantee of Rated licensed foreign institutions	20				
Investment made in Rated licensed foreign institutions	20				
Investment in Shares, Debentures and Bonds	100				
Other investments	100				
Loans, Advances and Bills Purchase/Discount	100				
Fixed Assets	100				
Net Interest Amount Receivable (Total Interest Receivable-Interest from Saving Bonds-Interest Suspense)	100				
Other Assets (Other than Advance Tax Deposit)	100				
Total (A)					

Off-Balance-Sheet Items					
Bills Collection	0				
Forward Foreign Exchange Contract	10				
Guarantee having maturity period less than 6 months (Full Amount)	20				
Guarantee issued against Counter Guarantee of Rated Licensed Institutions	20				
Guarantee having maturity period of more than 6 months	50				
Bid Bond, Performance Bond and Underwriting related liabilities	50				
Advance Payment Guarantee	100				
Financial and Other Guarantee	100				
Irrevocable Loan Commitment	100				
Contingent Liability related to Income Tax	100				
All Other Contingent Liabilities including Acceptance	100				
Total (B)					
Total Risk Weighted Assets (A+B)					

APPENDIX - G

Form No. 1.1 Capital Adequacy Table

(Rs. In …….)

1.1 Risk Weighted Exposures		**Current Period**	**Previous Period**
a	Risk Weighted Exposure for Credit Risk		
b	Risk Weighted Exposure for Operational Risk		
c	Risk Weighted Exposure for Market Risk		
Adjustments under Pillar II			
	Add: 3% of the total RWE due to non compliance to Disclosure Requirement (6.4 a 10)		
	Add: ….% of the total deposit due to insufficient Liquid Assets(6.4 a 6)		
Total Risk Weighted Exposures (After Bank's adjustments of Pillar II)			
1.2 CAPITAL		**Current Period**	**Previous Period**
Core Capital (Tier 1)			
a	Paid up Equity Share Capital		
b	Irredeemable Non-cumulative preference shares		
c	Share Premium		
d	Proposed Bonus Equity Shares		
e	Statutory General Reserves		
f	Retained Earnings		
g	Un-audited current year cumulative profit		
h	Capital Redemption Reserve		
i	Capital Adjustment Reserve		
j	Dividend Equalization Reserves		
k	Other Free Reserve		
l	Less: Goodwill		
m	Less: Fictitious Assets		
n	Less: Investment in equity in licensed Financial Institutions		
o	Less: Investment in equity of institutions with financial interests		
p	Less: Investment in equity of institutions in excess of limits		
q	Less: Investments arising out of		

	underwriting commitments		
r	Less: Reciprocal crossholdings		
s	Less: Other Deductions		
Adjustments under Pillar II Less: Shortfall in Provision (6.4 a 1)			
Less: Loans and Facilities extended to Related Parties and Restricted lending (6.4 a 2)			
Supplementary Capital (Tier 2)		**0**	**0**
a	Cumulative and/or Redeemable Preference Share		
b	Subordinated Term Debt		
c	Hybrid Capital Instruments		
d	General loan loss provision		
e	Exchange Equalization Reserve		
f	Investment Adjustment Reserve		
g	Assets Revaluation Reserve		
h	Other Reserves		
Total Capital Fund (Tier I and Tier II)		**0**	**0**
1.3 CAPITAL ADEQUACY RATIOS		**Current Period**	**Previous Period**
Tier 1 Capital to Total Risk Weighted Exposures (After Bank's adjustments of Pillar II)			
Tier 1 and Tier 2 Capital to Total Risk Weighted Exposures (After Bank's adjustments of Pillar II)			

APPENDIX - H

Form No. 1.2 Risk Weighted Exposure For Credit Risk

(Rs. In …….)

A. Balance Sheet Exposures	**Book Value**	**Specific Provision**	**Eligible CRM**	**Net Value**	**Risk Weight**	**Risk Weighted Exposures**
	a	b	c	d = a-b-c	e	f=d*e
Cash Balance	0	0	0	0	0%	0
Balance with Nepal Rastra Bank	0	0	0	0	0%	0
Investment in Nepalese Government Securities	0	0	0	0	0%	0
All Claims on Government of Nepal	0	0	0	0	0%	0
Investment in Nepal Rastra Bank Securities	0	0	0	0	0%	0
All claims on Nepal Rastra Bank	0	0	0	0	0%	0
Claims on Foreign Government and Central Bank (ECA- 0-1)	0	0	0	0	0%	0
Claims on Foreign Government and Central Bank (ECA- 2)	0	0	0	0	20%	0
Claims on Foreign Government and Central Bank (ECA-3)	0	0	0	0	50%	0
Claims on Foreign Government and Central Bank (ECA- 4-6)	0	0	0	0	100%	0
Claims on Foreign Government and Central Bank (ECA-7)	0	0	0	0	150%	0
Claims on BIS, IMF, ECB, EC and on Multilateral Development Banks (MDB's) recognized by the framework.	0	0	0	0	0%	0
Claims on Other Multilateral Development Banks	0	0	0	0	100%	0
Claims on Public Sector	0	0	0	0	20%	0

Entity (ECA 0-1)						
Claims on Public Sector Entity (ECA 2)	0	0	0	0	50%	0
Claims on Public Sector Entity (ECA 3-6)	0	0	0	0	100%	0
Claims on Public Sector Entity (ECA 7)	0	0	0	0	150%	0
Claims on domestic banks that meet capital adequacy requirements	0	0	0	0	20%	0
Claims on domestic banks that do not meet capital adequacy requirements	0	0	0	0	100%	0
Claims on foreign bank (ECA Rating 0-1)	0	0	0	0	20%	0
Claims on foreign bank (ECA Rating 2)	0	0	0	0	50%	0
Claims on foreign bank (ECA Rating 3-6)	0	0	0	0	100%	0
Claims on foreign bank (ECA Rating 7)	0	0	0	0	150%	0
Claims on foreign bank incorporated in SAARC region operating with a buffer of 1% above their respective regulatory capital requirement	0	0	0	0	20%	0
Claims on Domestic Corporates	0	0	0	0	100%	0
Claims on Foreign Corporates (ECA 0-1)	0	0	0	0	20%	0
Claims on Foreign Corporates (ECA 2)	0	0	0	0	50%	0
Claims on Foreign Corporates (ECA 3-6)	0	0	0	0	100%	0
Claims on Foreign Corporates (ECA 7)	0	0	0	0	150%	0
Regulatory Retail Portfolio (Not Overdue)	0	0	0	0	75%	0
Claims fulfilling all criterion of regulatory	0	0	0	0	100%	0

retail except granularity						
Claims secured by residential properties	0	0	0	0	60%	0
Claims not fully secured by residential properties	0	0	0	0	150%	0
Claims secured by residential properties (Overdue)	0	0	0	0	100%	0
Claims secured by Commercial real estate	0	0	0	0	100%	0
Past due claims (except for claims secured by residential properties)	0	0	0	0	150%	0
High Risk Claims	0	0	0	0	150%	0
Investment in equity and other capital instruments of institutions listed in the stock exchange	0	0	0	0	100%	0
Investments in equity and other capital instruments of institutions not listed in the stock exchange	0	0	0	0	150%	0
Other Assets (as per attachment)	0	0	0	0	100%	0
TOTAL	0	0	0	0		0

B. Off Balance Sheet Exposures	Gross Book Value	Specific Provision	Eligible CRM	Net Value	Risk Weight	Risk Weighted Exposures
	a	b	c	d = a-b-c	e	f=d*e
Revocable Commitments	0	0	0	0	0%	0
Bills Under Collection	0	0	0	0	0%	0
Forward Exchange Contract Liabilities	0	0	0	0	10%	0
LC Commitments With Original Maturity Upto 6 months	0	0	0	0	20%	0
domestic counterparty						
foreign counterparty (ECA Rating 0-1)	0	0	0	0	20%	0
foreign counterparty (ECA Rating 2)	0	0	0	0	50%	0
foreign counterparty (ECA Rating 3-6)	0	0	0	0	100%	0
foreign counterparty (ECA Rating 7)	0	0	0	0	150%	0
LC Commitments With Original Maturity Over 6 months	0	0	0	0	50%	0
domestic counterparty						
foreign counterparty (ECA Rating 0-1)	0	0	0	0	20%	0
foreign counterparty (ECA Rating 2)	0	0	0	0	50%	0
foreign counterparty (ECA Rating 3-6)	0	0	0	0	100%	0
foreign counterparty (ECA Rating 7)	0	0	0	0	150%	0
Bid Bond, Performance Bond and Counter guarantee	0	0	0	0	50%	0
domestic counterparty						
foreign counterparty (ECA Rating 0-1)	0	0	0	0	20%	0
foreign counterparty (ECA Rating 2)	0	0	0	0	50%	0

foreign counterparty (ECA Rating 3-6)	0	0	0	0	100%	0
foreign counterparty (ECA Rating 7)	0	0	0	0	150%	0
Underwriting commitments	0	0	0	0	50%	0
Lending of Bank's Securities or Posting of Securities as collateral	0	0	0	0	100%	0
Repurchase Agreements, Assets sale with recourse	0	0	0	0	100%	0
Advance Payment Guarantee	0	0	0	0	100%	0
Financial Guarantee	0	0	0	0	100%	0
Acceptances and Endorsements	0	0	0	0	100%	0
Unpaid portion of Partly paid shares and Securities	0	0	0	0	100%	0
Irrevocable Credit commitments (short term)	0	0	0	0	20%	0
Irrevocable Credit commitments (long term)	0	0	0	0	50%	0
Claims on foreign bank incorporated in SAARC region operating with a buffer of 1% above their respective regulatory capital requirement	0	0	0	0	20%	0
Other Contingent Liabilities	0	0	0	0	100%	0
Unpaid Guarantee Claims	0	0	0	0	200%	0
TOTAL	**0**	**0**	**0**	**0**		**0**
Total RWE for credit Risk Before Adjustment (A) + (B)	**0**	**0**	**0**	**0**		**0**
Adjustments under Pillar II						
Add: 10% of the loan and facilities in excess of Single Obligor						**0**

Limits(6.4 a 3)						
Add: 1% of the contract(sale) value in case of the sale of credit with recourse (6.4 a 4)						
Total RWE for credit Risk (After Bank's adjustment of Pillar II						

APPENDIX - I

Capital Fund of NIC bank Rs. in millions

Fiscal Year	Core Capital	Supplementary Capital	Total Capital Fund
2063/64	911.80	296.80	1208.60
2064/65	1293.75	319.90	1613.63
2065/66	1649.01	305.93	1954.94
2066/67	1750.46	260.10	2010.56
2067/68	1956.13	267.65	2223.78

(Source: Annual Reports of NIC Bank)

Risk-Weighted Assets of NIC Bank

Rs. in millions

Fiscal Year	Balance Sheet Items	Off-Balance Sheet Items	Total Risk Weighted Assets
2063/64	9566.50	339.10	9905.60
2064/65	11824.30	496.90	12321.20

(Source: Annual Reports of NIC Bank)

Table 4.2 (II)

Risk Weighted Assets of NIC Bank

Rs. in millions

Particulars	Current Year 2067/68	Previous Year 2066/67	Fiscal Year 2065/66
A) Risk Weighted Exposure for Credit Risk	15898.05	14466.35	15021.35
B) Risk Weighted Exposure for Operational Risk	1126.73	851.16	647.08
C) Risk Weighted Exposure for Market Risk	55.13	87.78	73.18
Adjustment under pillar II Add: 1% of total Risk Weighted Exposure as per NRB inspection	170.79	154.05	-
Total Risk Weighted Exposure (A+B+C) After adjustment	17250.71	15559.34	15741.61

(Source: Annual Reports of NIC Bank)

We have;

Ratio of Total Capital Fund as:

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

Ratio of Core Capital Fund as:

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

Ratio of Supplementary Capital Fund as:

$$\frac{\text{Supplementary Capital}}{\text{TRWA}} \times 100\%$$

By using above formulas, we get the ratios as:

Fiscal Year	Percentage of Core Capital	Percentage of Supplementary Capital	Percentage of Total Capital
2063/64	9.20%	3.00%	12.20%
2064/65	10.50%	2.60%	13.10%
2065/66	10.48%	1.94%	12.42%
2066/67	11.25%	1.67%	12.92%
2067/68	11.34%	1.55%	12.89%

(Source: Annual Reports of NIC Bank)

APPENDIX - J

<u>Calculation of Credit/Deposit Ratio</u>

Rs. In Million

Fiscal Year	Deposit Collection	Loan and Advances	Credit/Deposit Ratio
2063/64	10068.23	9128.65	90.67%
2064/65	13084.70	11465.30	87.62%
2065/66	15580.00	13916.00	89.32%
2066/67	15970.00	12929.00	80.96%
2067/68	18394.00	15166.00	82.45%

(Source: Annual Reports of NIC Bank)

We have;

Ratio of Credit to Deposit as:

$$\frac{\text{Total Credit}}{\text{Total Deposit}} \times 100\%$$

APPENDIX - K

Calculation of Correlation Coefficient of Deposit on loan and advances

(Rs. In million)

Fiscal Year	Deposit	Loan and Advances
2063/64	10068.23	9128.65
2064/65	13084.70	11465.30
2065/66	15580.00	13916.00
2066/67	15970.00	12929.00
2067/68	18394.00	15166.00

(Source: Annual Reports of NIC Bank)

Let the variable Deposit be *X* and Loan and Advances be *Y*

X	Y	$x=(X-\overline{X})$	$y=(Y-\overline{Y})$	*xy*	x^2	y^2
10068.23	9128.65	-2625.55	-1739.56	4567301.76	6893512.80	3026068.99
13084.70	11465.30	390.92	597.09	233414.42	152818.45	356516.47
15580.00	13916.00	2886.22	3047.79	8796592.45	8330265.89	9289023.88
15970.00	12929.00	3276.22	2060.79	6751601.41	10733617.49	4246855.42
18394.00	15166.00	5439.77	2645.01	14388246.05	29591097.65	6996077.90
ΣX=64771.16	**ΣY=62604.95**	-	-	**Σxy= 34737156.09**	**Σx^2= 55701312.28**	**Σy^2= 23914542.66**

$$\overline{X} = \frac{\Sigma X}{N} = \frac{64771.16}{5} = 12954.23$$

$$\overline{Y} = \frac{\Sigma Y}{N} = \frac{62604.95}{5} = 12520.99$$

Now,

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

$$= \frac{34737156.09}{\sqrt{55701312.28}\,.\,\sqrt{23914542.66}} = 0.9518$$

$\therefore$ Correlation co-efficient of Deposit on loan and advance, $r = 0.9518$