

CHAPTER I

INTRODUCTION

1.1 General Background of the Study

An under developing countries are faced the problems of formation of capital to invest the industrial sector. But, people seek opportunities abroad and migrate to the place with better opportunities. These are consequences of globalization, it has opened door to world (Economic Report, 2072). To accelerate economy development, various polices like industrial policies, monitory policies, NRB directives and trade policies etc. has been formulated and are being implemented. After the formulation of various economic policies private companies, multinational companies, banks and financial institutions have emerged in the country. After the adaptation of economic liberalization policy by the country, particularly the financial sector is liberalization that proved the way to establish of the new banks and non- bank financial institutions into the country (Monitory Policy, 2072). Therefore, it is necessary to modify agro-based economy of the country. After the restoration of the democracy, the concept of liberalization policies has been incorporated as directive principal and state policies.

Financial institutions occupy an important place in a nation's economy. They play a vital role in the economy development of a country. Banking sector plays an important role in the economic development of the country. Bank is a resource mobilizing institution, which accepts deposit from various sources and invest such accumulated resource in different sector like trade, commerce, industry etc. It is a financial mediator of depositor and borrower (Sharpe, 2003). So, Bank is a financial institution, which plays significant role in the development of the country. It helps the growth of agriculture, trade, commerce and Industry of national economy. The banking system is largely responsible for collecting household saving items of different sector of the economy. The banking sector has now reached even to the most remote areas of the country and has contributed a good deal to the growth of the economy (Thapa, 2010).

The word “Bank” is orient in 1171 AD from an Italian word “Banca.” that means the place where people come together for different transaction. Some people believed that it originated from the Latin word “Bancus”, meaning a bench (K. C., 1999). The “Bank of Venice” was the first bank, which established in Italy in 1157 AD as a first modern bank. Then after in 1401 AD “Bank of Barcelona” is established in Spain, Bank of Geneva established in 1407 AD, Bank of Amsterdam established in 1609 A. D. But the credit of the development of modern banks goes to “The Bank of England” which was established in 1694 AD in London. The growth of banking accelerated only after the introduction of the banking Act 1883 in United Kingdom as it allowed opening joint stock company banks (Vaidhya, 2008).

Over the years, Nepalese economy has involved as free market economy. Many financial institutions, both public and private, have come up in those years strengthening the financial health of the country. Commercial banks are one of the vital aspects of this sector which deals in the process of channelizing the available resources in the needed sectors. It is the intermediary between the deficit and surplus of the financial resources (Samachar, NRB. 2070). Financial system contains two components viz. depository financial institution and non-depository financial institution. In Nepalese context, commercial banks and finance companies are the example of depository financial institution where as employee provident fund, development bank; insurance companies are the example of non-depository financial institution. All the economic activities are directly or indirectly channeled through these banks.

There is large gap between deposit interest rate and lending interest rate which sometimes seems peculiar. Interest rate plays vital role in the allocation of resources and decision making of consumer and business. It sends price signals to lenders and depositors. Higher interest rate thus bring are a greater volume of savings and stimulate the lending of fund. From the investment perspective, higher interest rate causes reduced volume of borrowing and investment (Thapa, 2012). Interest rate, in free market economy, is influenced by various factors; one of the most prominent factors obviously is the demand and supply of fund. If the supply increase and demand remains constant, interest rate

decreases. Similarly, if the supply decrease and demand remains constant, the interest rate increases. In Nepal, The total 220 Financial Institutions are operated now, where total deposit of Financial Institution is about 1076 billion. There are 30 Commercial Banks, where total deposit of CB is 81.6% and total lending of CB is 61% out of total financial institutions in Nepal. NRB, being the regulator, provides guidelines and updates not only for the interest rates but also for proper functioning of the financial institutions in the country. Banks are permitted to fix the interest rate they charge and offer on loan and deposits (Monitory Policy, 2072).

NRB sometimes provides directives or monitory policy to reduce the gap to induce deposit and investment atmosphere in the economy. Financial institutions collect money from depositors and provide it to the lenders in the form of loan. These institutions provide interest to the depositors and charge interest from the lenders. Here comes the role of interest rate which is actually the price of money rented for a specified period of time.

1.1.1 Evolution of Banks in Nepal

Like many other countries, goldsmiths, merchants and money lenders were the ancient bankers of Nepal. Tejarath Adda established in 1880 during the tenure of the then Prime Minister Ranoddip Shing was the first step towards the institutional development of banking of Nepal. Some historians say Kausi Tosha Khana established during the time of king Prithivi Narayan Shah is the first banking institution but very little is known about it. Tejarath Adda did not collect deposits from the public but gave loans to public against the securities of gold and silver and to the Government employees against the securities of their salary. Since interest rate of Tejarath Adda was just 5% (Joshi, 2056).

According to the history, banking system emerged in Nepal only after the establishment of Nepal Bank Limited. It was established on the 30thKartik, 1994 under the Nepal bank Act 1994 to provide modern & organized banking facilities, which is the first commercial bank of the country. Under the NRB Act 2012, NRB was established in 14thBaishakh, 2013 (BS), but this Act has been replaced by the NRB Act 2058 during now. Similarly,

Rastriya Banijya Bank was set up on 23th January, 1966 as a fully Government owned commercial bank to fulfill the growing needs of the country. The birth of this bank brought a new landmark in the history of the banking facility in the Nepal. The inception of Nepal Arab Bank limited on 12 July 1984 as a first foreign joint venture bank proved to be a milestone of the history of banking in Nepal (Bhatta, 2006).

Now, NRB approved 30 Commercial bank (Class A), 79 Development Bank (Class B), 50 Finance Companies (Class C), 36 Micro Development Bank (Class D), 16 Credit and Saving Cooperative and 30 NGO; s (Financial Intermediaries) of the data on Mid July, 2014, successfully operating in financial domain of our Country (Monitory Policy, 2072).

1.1.2 Meaning of Commercial Bank

A bank is a business organization, that receives and hold deposits and fund from others makes loans or extends credits and transfers fund by written orders of depositors. CBs are the heart of financial sectors, which occupy important place in the framework of the economy. They hold deposits of people, Government and other business units. They make fund available through their lending and investing activities to borrowers (Thapa, 2010). American Institute of banking defines commercial banks as “Commercial bank is a corporation which accepts demand deposit subject to cheques and makes short-term loans to business enterprises, regardless of the scope of its other services.”

Among the various types of commercial banks like Government owner, joint venture, foreign investor and private sector the importance of commercial banks may not be exaggerated for smooth financial development for industries, trade and commerce (Bhandari, 2003). Truly speaking commercial banks have changed the economic structure of the world. On the other hand, the services of the commercial banks will help to extend the market.

According to the Commercial Bank Act 2031, Section 2a “Commercial banks means a bank which operates currency exchange transactions, accepts deposits, provide loan, performs dealing, relating to commence except banks which have been specified for the

cooperatives, agriculture, industry of similar other specific objectives”. After the implementation of liberalization and merger policy following are the CBs presence in Nepal with their respective names, address and operation dates as following table no. 1.1.

Table: 1.1
List of Class ‘A’ Licensed Commercial Banks and their date of operation

S. N.	Names of Banks	Operation Date	Head Office
1.	Nepal Bank Ltd.	1937/11/15	Dharmapath, Ktm
2.	Rastriya Banijya Bank Ltd.	1966/01/23	Singdarbarplaza, Ktm
3.	Agriculture Development Bank Ltd.	1968/01/21	Ramshah path, Ktm
4.	Nabil Bank Ltd.	1984/07/12	Teendhara, Ktm
5.	Nepal Investment Bank Ltd.	1986/03/09	Darbarmarg, Ktm
6.	Standard Chartered Bank Ltd.	1987/02/28	New Baneshwor, Ktm
7.	Himalayan Bank Ltd.	1993/01/18	Thamel, Ktm
8.	Nepal SBI Bank Ltd.	1993/07/07	Hattisar, Ktm
9.	Nepal Bangladesh Bank Ltd.	1994/06/06	New Baneshwor, Ktm
10.	Everest Bank Ltd.	1994/10/18	Lazimpat, Ktm
11.	Bank of Kathmandu Ltd.	1995/03/12	Kamaladi, Ktm
12.	NCC Bank Ltd.	1996/10/14	Siddharthanager, Rupandehi
13.	Kumari Bank Ltd.	2001/04/03	Darbarmarg, Ktm
14.	Laxmi Bank Ltd.	2002/04/03	Adarshanager, Birgunj
15.	Siddhartha Bank Ltd.	2002/12/24	Hattisar, Ktm
16.	Citizens Bank International Ltd.	2007/04/20	Kamaladi, Ktm
17.	Prime Commercial Bank Ltd.	2007/09/24	Newroad, Ktm
18.	Sunrise Bank Ltd.	2007/10/12	Gairidhara Crossing, Ktm
19.	Grand Bank Nepal Ltd.	2008/05/25	Kamaladi, Ktm
20.	NMB Bank Ltd.	2008/06/02	Babarmahal, Ktm
21.	Janata Bank Ltd.	2010/04/05	Newbaneshwor, Ktm
22.	Mega Bank Ltd.	2010/07/23	Kantipath, Ktm
23.	Century Commercial Bank Ltd.	2011/03/10	Putalisadak, Ktm
24.	Sanima Bank Ltd.	2012/02/15	Naxal, Ktm
25.	Machapuchhre Bank Ltd.*	2012/07/09	Prithivichok, Pokhara

26.	NIC ASIA Bank Ltd.*	2013/06/30	Biratnager, Morang
27.	Global IME Bank Ltd.*	2014/04/09	Birgunj, Parsa
28.	Civil Bank Ltd.*	2014/04/14	Kamaladi, Ktm
29.	Lumbini Bank Ltd.*	2014/06/23	Narayanghat, Chitwon
30.	Prabhu Bank Ltd.*	2014/09/15	Anamnager, Ktm

(Source: <http://www.nrb.com.np>)

*Joint operation date after Merger of Bank and Financial Institutions

The CBs had to carry out the functions of all the type of financial institutions such as to improve people's economic welfare and facility to provide loan to offer banking services to the people and the country. Hence, following are the functions of CBs in Nepal (Thapa, 2008).

-) Accepts deposits
-) Supply credits
-) Deal in foreign exchange
-) Deal in Letter of Credit
-) Engage in merchant banking
-) Remit or transfer of funds
-) Other functions as prescribed by NRB

Today banks are under great pressure to perform to meet the objectives of their stockholders, employees, depositors and customers. Profit earned by the firm is main financial indicators of a business enterprise. In conclusion, among all objectives profit maximization is the ultimate objectives of Nepalese commercial banks. In the country, 1547 the number of branches are operating of CB in Mid July, 2014. By the balance sheet, the deposit and loan shows as follow on table no. 1.2.

Table: 1.2
Compositions of Assets/Liabilities of CB as on Mid July, 2014

Liabilities	Percentage (%)	Assets	Percentage (%)
Deposits	81.60%	Loan and Advances	61%
Borrowings	1.00%	Investments	9%
Capital Fund	7.30%	Shares and others investments	4%
Other Liabilities	10.10%	Liquid Fund	17%
		Others	9%

(Sources: Bank and Financial statistics: Mid July,2014, NRB)

In Nepal, the total 220 financial institutions are operated now, where total deposit of financial institution is about 1076 billion. There are 30 commercial banks, where total deposit of CB is 81.6% and total lending of CB is 61% out of total financial institutions in Nepal. The major indicators of commercial banks as on mid July, 2014 are given below on table no. 1.3.

Table: 1.3
Major Indicators of Commercial Banks as on Mid July, 2014

(Rs.in Millions.)

Particulars	2010	2011	2012	2013	2014
Total Deposits	630880.84	687587.89	867978.25	1020830.81	1204463.40
Total Credits	469279.84	528023.14	622575.49	757207.55	891629.91

(Sources: Bank and Financial statistics: Mid July,2014, NRB)

Commercial banks play vital role in economic growth of the country. As being a commercial institution, a commercial bank must make profit out of its operation for its survival and fulfillment of its responsibilities. The major activities of the commercial banks include mobilization of resources, which involves cost, and profitable deployment of the resources, generating income.

1.1.3 Meaning of Interest Rate

Interest rate is a vital tool of monetary as well as fiscal policy and is used to control variables like investment, inflation and unemployment. It is the major tool of shipping economics. The rate of interest is the price a borrower must pay to secure scarce loan able funds from a lender for an agreed-upon time period. It is the price of credit. The rate of interest is the ratio of two quantities: the money cost of borrowing divided by the amount of money actually borrowed, usually expressed on an annual percentage basis. The cost of borrowing money, measured in rupee per year per rupee borrowed, is the interest rate (Samuelson, 1993, p.469). Interest rates are one of the major drivers of the economy. A change in the interest rate may affect the overall economy in several ways.

Interest rate sends price signals to borrowers, lenders, savers and investors. For example, higher interest rates generally bring for a greater volume of saving and stimulate the lending of funds. Lower rate of interest, on the other hand, tend to dampen the flow of saving and reduce lending activity. Higher interest rates tend to reduce the volume of borrowing and capital investment, and lower interest rates stimulate borrowing and investment spending (Rose, 1997, p.13).

1.1.4 Interest Rate in Nepal

The dualism prevailing in the financial sector is also applied to the interest rate structure. In organized sector, most of the credit is supplied by private money lenders and non institutional sources. They charge high interest rate to the borrowers. In organized sector, the interest rate has been maintained relatively at low level through various discretionary measures (Aryal, 2012, p.12).

In the fifteen years period, that is from January, 1966 to December 1980, the deposit rate structure of CBs was changed six times. Interest rate of 1.5% on savings till April 13, 1965 was changed to 4.5% in August 1966 and it continued to be changed. On May 29, 1986, CBs and financial institutions were given freedom in fixing the interest rate on deposits and loans. But higher and lower limit was fixed by NRB. The minimum of 8.5% interest rate was fixed for saving deposits, 12% on one year fixed deposits. Banks and Financial institutions were allowed to fix lending rate subject to a minimum of 15% for the priority sectors.

On August 31, 1989, CBs and financial institutions were given complete freedom to determine their own deposit and lending rates. Since then, NRB has not administered and regulated interest rate. But it has given instructions in time to time regarding interest rate and terms and conditions of lending and keeping accounts (Bhandari, 2003). Considering the needs of the country, NRB took flexible approach in making some adjustment in interest rates by putting control it.

According to the monetary policy of Nepal Rastra Bank of fiscal year 2072/73, the minimum of 7% interest rate of loan or bank rate is fixed for lending interest rate and also about 800 corers the minimum authorized capital is fixed. Nepal Rasrta Bank is authorized to fix the nominal interest rate charged or offered by financial institutions. The annual report of NRB indicates that interest rate has been used as its major policy.

1.1.5 Interest Rate Structure in Nepal

Research Department of NRB publishes Micro Economic Indicators of the Country. The following table is one of the Indicators and presents the interest rate structure of the country from year 2010 to 2014 A.D. Structure of interest rate on mid July is given below on table no. 1.4.

Table: 1.4
Structure of Interest Rates in % per annum, Mid July

Year A.D.	2010	2011	2012	2013	2014
<u>A: Policy Rates</u>					
CRR (CBs)	5.5	5.5	5.0	6.0	5.0
Bank Rate	6.5	7.0	7.0	8.0	8.0
<u>B: Government Securities</u>					
T-Bill (28 days)*	8.70	8.08	0.10	0.55	0.01
T-Bill (91 days)*	8.13	8.52	1.15	1.19	0.02
T-Bill (182 days)*	8.28	8.59	1.96	1.60	0.42
T-Bill (364 days)*	7.28	8.61	2.72	2.71	0.72
Development Bonds	5.0-9.0	5.0-9.5	5.0-9.5	5.0-9.5	3.25-9.05
National Credits SCs	6.0-10.0	6.0-10.0	6.0-10.0	6.0-10.0	6.0-10.0
<u>C: Interbank Rate</u>					
	6.57	8.22	0.86	0.86	0.16
<u>D: Commercial banks</u>					
1) Weighted Average Deposit Rates:	NA	NA	6.17	5.25	4.09
2) Weighted Average Lending Rates:	NA	NA	12.40	12.05	10.55
3) Base Rates (CBs)\$	NA	NA	NA	9.83	8.36

*Weighted Average Interest Rate

\$Base Rate Compilations started from January 2013

(Sources: Microeconomics Indicators of Nepal, November 2014, NRB)

1.1.6 Brief Profile of the Sample Commercial Banks

As there are 30 commercial banks that are operating within the country as on mid-march 2015, only five commercial banks are taken as sample for the study. Ownership of the bank, size of the capital and establishment period is taken into consideration while selecting the sample banks.

❖ **Introduction to Nepal Bank Ltd.**

Nepal Bank Limited (NBL), the first bank of Nepal was established in November 15, 1937 A.D (Kartik, 30, 1994), situated in Dharmapath, Kathmandu. It was formed under the principle of Joint venture (Joint venture between govt. & general public). NBL's authorized capital was Rs. 10 million & issued capital Rs. 2.5 million of which paid-up capital was Rs. 842 thousand with 10 shareholders. The bank has been providing banking through its branch offices in the different geographical locations of the country. NBL is the bank which powered by Government of Nepal and publics (Website: <http://www.nbl.com.np>).

❖ **Introduction to NCC Bank Ltd.**

Nepal Credit and Commerce Bank Ltd. (NCC Bank) formally registered as Nepal Bank of Ceylon Ltd. (NBOC), commenced its operation on 14th October, 1996, as a joint venture with the bank of Ceylon, Sri Lanka. It was the first private sector bank with the largest authorized capital of Rs 100 million. The head office of the bank is located at Siddhartha Nager, Rupandehi, and The birth place of LORD BUDDHA. The name of the bank was changed to Nepal Credit and Commerce bank Ltd (NCC bank) on 10th September , 2002, due to transfer of shares and management of Sri Lanka to Nepalese's promoters. At present, NCC bank provides banking facilities and services to rural and urban areas of the country through its 24 branches. Now its authorized capital is Rs.5 billion and paid up capital is Rs.202 million. After foreign owner Bank of Ceylon, now NCC bank is owned by Nepalese's promoters (Website: [http:// www.nccbank.com.np](http://www.nccbank.com.np)).

❖ **Introduction to NIC ASIA Bank Ltd.**

NIC ASIA bank has its antecedents in NIC bank which was established on 21th July 1998, is situated in Biratnager, Morang. The bank was rechristened as NIC bank with bank of Asia Nepal on 30th June 2013. This was a historical merger in the annals of Nepalese financial landscape as the first of its kind merger between two successful commercial banks in the country. Today NIC ASIA has established itself as one of the most successful commercial bank in Nepal. After the merger, NIC ASIA was recognized as "Bank of the Year 2013 – Nepal" by the banker, financial times, UK. NIC ASIA bank

is now, one of the largest private sector commercial bank in Nepal. The bank has 67 branches across Nepal with a network covering all major financial centers of the country. The bank strongly believes in meritocracy, transparency, professionalism, team spirit and service excellence. The bank has authorized capital of Rs.260 million. The issued and paid up capital of bank is Rs.230 million (Website: [http:// www.nicasiabank.com.np](http://www.nicasiabank.com.np)).

❖ **Introduction to Everest Bank Ltd.**

EBL was established on 18th October, 1994 under the company Act 2058, situated in Lazimpat, Kathmandu. It is the joint venture bank with Punjab Bank of India. EBL started its operation with a view and objectives of extending professionalized and efficient banking services to various segments of the society. EBL was the first bank to introduce Any Branch Banking System in Nepal. EBL has introduced mobile vehicle banking system to see the segment deprives of proper banking facilities through Birtamod branch which is the first of its kind. The bank has authorized capital of Rs.367 million. The issued and paid up capital of bank is Rs.367 million (Website: <http://www.everestbank.com.np>).

❖ **Introduction to NABIL Bank Ltd.**

NABIL Bank Limited was established on July 12, 1984, situated in Teendhara, Kathmandu under a technical service agreement with Dubai Bank limited, Dubai Bank, which was later merged with emirates bank ltd. NABIL, is the first joint venture bank in the country with key points of presentation all over the country. The bank provides a complete range of customer, retail, SME and corporate banking services through its office spread across the country. It is the largest private bank in the country in terms of branch and ATM network. The bank has authorized capital of Rs.400 million. The issued and paid up capital of bank is Rs.380 million. The motto of NABIL is “Your Bank at Your Service” (Website: <http://www.nabilbank.com.np>).

1.2 Focus of the Study

In Nepal many commercial and joint venture banks and financial company have opened up within few year periods. Basically, joint venture, merger, privet and government banks

have given a new horizon to the financial sector of Nepal. They have achieved tremendous success in terms of market share, profit, interest rate and professionalism. This study is focus on the relationship of interest rate with deposit and lending of CBs in Nepal with reference to NCC Bank Ltd., NIC ASIA Bank Ltd., Everest Bank Ltd., NABIL Bank Ltd. and Nepal Bank Ltd.

1.3 Statement of the Problem

Sekaran, (2007): defines research problem as “Any situation where a gap exists between the actual and the desired ideal state.” The research question is one of the first methodology steps the investigator has to take when undertaking research. It must be accurately and clearly defined. Choosing a research question is the central elements of both qualitative and quantitative research and in some cases it may precede construction of the conceptual framework of the study (Karlinger, 1986).

The major problem in almost all under development countries and Nepal is no exception than that of capital formation and proper utilization. According to theory, the market interest rate is the sum of real rate plus inflation premium. But it may not occur in real practice. Nowadays money lenders are providing credit on excessively high interest rate and even collecting deposits in low interest rate. When, credit becomes more costly and less available, total spending for goods and services falls and business cutback production. As a result, unemployment rises and economic growth slows down.

There seems unhealthy competition among financial institutions in fixing the interest rate. There are many financial institutions in Nepal. Some of them are even providing loans for infrastructural development, energy sector development. But in recent years, most of the bank and financial institutions had spent their lending funds in non productive real estate business which has put them in financial crisis. In such countries, the CBs have to take on more responsibilities and act as development banks, due to the lack of other specialized institutions. In this situation, CBs have to play vital role by accepting deposits and providing various types of loans to minimize the inflation.

Due to political instability, unavailability of job opportunity, difficulty and unavailability of financing, the youth of the land are forced to work in foreign soil. Every part of financial sectors is facing one or more problems which ultimately affect the development of our country. This study is carried out in order to look into the comparative weaknesses and inefficiency of selected commercial banks and with the help of the comparative analysis of their financial statements. This study is going to identify: Is there any relation of interest rate with deposit, lending and inflation?

The research finds the answers to the following major questions.

-) What is the interest rates structure of Nepalese's CBs?
-) What is the relationship between deposit, lending amount and interest rate?
-) Does substitution effect of interest rate is truly applicable in our Nepalese context?
-) Is the interest rate on deposit of CBs can attract to the depositors?
-) Is the interest rate on lending of CBs can attract to the borrower or investor?
-) Is the interest rate spread satisfactory or not satisfactory provided by CBs?
-) What are the various methods of interest rates in use on deposit and lending activities of CBs in Nepal?

1.4 Research Hypothesis

Uma, (2007): "A hypothesis is a logically conjectured relationship between two or more variables expressed in the form of testable statements." By testing the hypothesis we can find out whether it deserves the acceptance or rejection of the hypothesis. The acceptance of hypothesis means there is no any sufficient evidence provided by the sample to reject it and does not necessarily imply that it is true. The main goal of testing of hypothesis is to test the characteristics of hypothesized population parameter based on sample information whether the difference between the population parameter and sample statistic is significant or not (Sekaran, 2007). This research tests the following null and alternative hypothesis to determine the relationship between the various variables:

Hypothesis Formulation

The Hypotheses formulated for this study are as follows:

First Hypothesis:

Null hypothesis H_0 : That is, population correlation coefficient is zero. In other words, the variables (deposit interest rate and deposit amounts) are uncorrelated in Nepalese commercial banks.

Alternative hypothesis H_1 : That is population correlation coefficient is not equal to zero. In other words, the variables (deposit interest rate and deposit amounts) are correlated.

Second Hypothesis:

Null hypothesis H_0 : That is, population correlation coefficient is zero. In other words, the variables (lending interest rate and lending or loan amounts) are not correlated in Nepalese commercial banks.

Alternative hypothesis H_1 : That is population correlation coefficient is not equal to zero. In other words, the lending interest rate and lending or loan amounts are correlated.

Third Hypothesis:

Null hypothesis H_0 : That is, population correlation coefficient is zero. In other words, there does not exist any correlation between interest rate on deposit and interest rate on lending.

Alternative hypothesis H_1 : That is population correlation coefficient is not equal to zero. In other words, there exist correlation between interest rate on deposit and interest rate on lending.

1.5 Objectives of the Study

Research objectives are simply research questions rewrite in statement form. The major objective of this study is to analysis the relationship or overall influence of interest rate with deposit and lending of commercial banks as well as to identify whether the interest

rate spread satisfactory or not among five sample commercial banks in Nepal. In the same way this study also aims to identify whether the theories that are taught in university courses are applicable or not in Nepalese financial sectors. The specific objectives of this study are given as below:

-) To identify the interest rate structure of commercial banks.
-) To determine the relationship between interest rate and deposit of CB in Nepal.
-) To determine the relationship between interest rate and lending of CB in Nepal.
-) To identify the interest rate spread satisfactory or not, provided by CBs in Nepal.
-) To explore the problems and to suggest for further improvements on the basis of findings of the study.

1.6 Significance of the Study

Economy system is affected by deposit, lending and inflation. Three variables are also affected by interest rate. So, the chain is proved that interest rate is a major factor of economy system. The function of interest rate is a regular phenomenon in developing countries. Therefore, it is quite necessary to develop some ideas about the impact of interest rate to the economy. It is important to know the policies of financial institutions regarding rate and its impact on various variables of the institutions.

Interest rate is price signal to borrower, lender, saver and investor. In the case, where interest rates are high, investor may prefer to invest their money in a bank account. On the other hand, if interest rates are low, investors may prefer to consume or to invest other portfolios (Rose, 1997, p.153). To find relation of interest rate with deposit, lending and inflation in Nepal, the researchers will be followed to make any related research for the study. CBs main business is collection of spread saving from the depositors and flow to essential and productive sectors. It successfully presents the comparative study of interest rate of these financial institutions. So, this study will be fruitful to those interested

person, investors, parties, scholars, professors, students, businessman and government for academically as well as policy perspective.

This study is highly focused towards the better implication of the management tools and tactics for developing the better course of action to generate outstanding performance of the banking sector. This study will try to help analyze the interest structure of CBs in Nepal and try to develop some ideas to know whether it influences deposit, lending and inflation. This is useful for improvement of CBs themselves. Moreover, this study may be important for researchers, scholars, banking sector, students, government and other parties.

1.7 Limitations of the Study

There are some boundaries that weakened the generalization. This study has conducted for the partial fulfillment of Degree in M.B.S., so it possesses some limitations of its own kind. The main limitations of the study are given as below:

-) The deposit and lending amount of the CBs are influenced by several factors. However, this study mainly focuses on the interest rate.
-) Some approximate data have been used because of certain circumstances. Being a student, resources constraints is the factor, which has limited the scope of the study. The study may not be so comprehensive due to limited time and resources.
-) The study is basically based on secondary source of data; these can be obtained from some published or unpublished sources, which may or may not provide exact vision of the field. Therefore, the accuracy of result and conclusions highly depends upon the reliability of these data. Hence, the findings will be in accordance of the data personal judgment sampling is followed to draw the sample.

-) Only Nepalese commercial banks have been considered for the study. There are 30 CBs in Nepal; however, this study covers only five commercial banks (NBL, NABIL, NIC ASIA, NCC and EBL) have been selected as sample for the study. It has been assumed that these banks represent all Nepalese commercial banks as the total population.
-) There are many parts of financial sector but the study concerns about CBs only. The findings may not be applicable to other banks (i.e. developments banks, agriculture banks, finance companies and other companies of Nepal).
-) The secondary data is about 5 years period only i.e. from fiscal year 2010/11 to 2014/15.
-) Because of the banks secrecy they don't provide adequate information. Due to availability of limited information this study will not cover every part of the relationship aspects.
-) Results/Findings of this thesis has to depend on the reliability of data, also the reliability depends upon the accuracy of the data.

1.8 Organizations of the Study

The whole study has been divided and organized into five chapters. Each chapter is devoted to some aspects of the study. The five major chapter of the study are as follows:

Chapter I: Introduction

It gives brief overview of interest rate and its history. This chapter includes introduction, general background of the study, focus of the study, statement of the problem, objectives of the study, significance of the study and limitations of the study.

Chapter II: Review of Literature

This chapter includes conceptual as well as theoretical review of the study. It includes the review of various journals, books, published or unpublished articles, thesis and other materials concerned with the study.

Chapter III: Research Methodology

This chapter answers the questions of how research is conducted. It includes research design, population and sample, time duration, source and technique of data collection, data analysis tools and limitations of the methodology.

Chapter IV: Data Presentation and Analysis

In this chapter, the collected data is tabulated and analyzed by the use of various financial tools, statistical tools, graphs and figures. It also includes the major findings of the study.

Chapter V: Summary, Conclusion and Recommendation

This chapter includes summary, conclusion and recommendation of the study.

Similarly, at the front part of the study table of contents, recommendation sheet, viva-voice sheet, acknowledgement, list of tables, list of figures and abbreviation are presented and bibliography and appendices are presented at the end of the study.

CHAPTER II

REVIEW OF LITERATURE

2.1 Introduction

Review of literature begins with a search for a suitable topic and continues throughout the duration of the research work, which is the second important part of the study. Williman (2005), “A literature review (or overview) is a summary and analysis of current knowledge about a particular topic or area of enquiry.” The main reason for a full review of research in past is use to know the outcomes of those investigations in areas where similar concepts and methodologies had been used successfully (Sekaran, 2007). It is the process of systematic, meticulous and critical summary of published literature in your field of research. A literature review is the process of locating, obtaining, reading and evaluating the research’s literature in the area of your interest (Hayward & Wagg, 1996, p.39).

The main motto of this chapter is to show how far and how much our present study is associated with different past researchers. So, the objectives of this chapter is to present basis concept on different journals, articles, books, research papers, other related studies, published and unpublished previous thesis. In this chapter, attempts have been made to review the literature related to interest rate structure and its impact on lending and deposit of commercial banks in Nepal.

Purposes of Literature Review in this Study:

- To identify reasonable hypothesis.
- To know what research has been done in the subject.
- To know what others have written about the topic.
- To know outline gaps in previous research.
- To know what theories, approaches and design taken by others.
- To understand areas of the agreements and disagreements.

This chapter highlights and deals with the literature relevant to this study. To ensure the precise, lucid and concrete views about the stated topic, the entire review work is broadly discussed in the point wise break down as given below:

- i. Conceptual/Thematic Review
- ii. Theoretical Review
- iii. Empirical Review
 - ❖ Review of Related Books and Studies
 - ❖ Review of Related Articles and Journals
 - ❖ Review of Previous Thesis
- iv. Policy Review
- v. Research Gap

2.2 Conceptual/Thematic Review

2.2.1 Meaning of Interest Rate

The interest rate is the price of money. The interest rate plays a vital role in the allocation of resources and in the decision making of consumers and business. Interest rate is one of the important variables in economics and financial system of the country. In common sense, Interest is a payment made by borrower to the lender for the money borrowed and is expressed as a rate percentage per year (Thapa, 2012).

Interest rates send price signals to borrowers, lenders and savers. Higher interest rate cause greater volume of saving and stimulate lending of fund. It tends to reduce the volume of borrowing and Capital investment, Lower interest rate, on the other hand, stimulates borrowing and investment spending (Rose, 1997, p.101). A rate which is charged or paid for the use of money is known as interest rate. Interest, therefore, can be considered from the above two point. If interest is paid, it can be considered as a 'cost'. One the other hand, if interest is received, it can be considered as in other words. Interest rate is one of the crucial indicators of financial as well as economic system of the country. As Carver (2002) said, "Interest is one income which goes to the owner of capital. The interest rate is the price of money; the price of renting the use of the

resources that money commands for a specified by the free interplay of supply and demand in a market economy.”

2.2.2 Functions and Importance of Interest Rate

Interest rate is a vital tool of monetary policy and is taken into account when dealing with variable likes investment, inflation and unemployment. Investment is a function of interest rate. It also influences saving, borrowing and cost of production in the economy (Mauro, 2002). The central bank of country, generally tend to reduce interest rates when they wish to increase investment and consumption in the country’s economy. In the case where interest rates are high, investors may prefer to invest their money in a bank account. On other hand, if interest rates are low, investors may prefer to consume. These reactions may lead to economical development. In addition, the term structure of interest rates is an extremely important price since it affects the level and composition of investment goods production (McConnell, 1996, p.585).

It helps guarantee that current saving will flow into investment to promote economic growth. It brings the supply of money into balance with the demand of public for money. It is a significant tool of government policy through its influence on the volume of saving and investment. If the economy is growing too slowly and unemployment is rising, the government can use its policy tools to lower interest rate in order to stimulate borrowing and investment. On the other hand, an economy experiencing rapid inflation has traditionally called for a government policy of higher interest rate to slow borrowing and spending and encourage more saving (Rose, 1997, p.113). Interest rate plays the important role in the economy. The main functions of interest rate in economy are given as follow:

-) Interest rate helps to direct the flow of current saving into investment to promote economy growth.
-) It helps to generate co-relationship with deposit, lending and inflation.
-) It acts as important tools to adopt Government policy.
-) It brings into the supply of money with the public’s demand for money.

2.2.3 Concept of Deposit

Deposit is understood that the institution may invest the cash and pay the depositor a specified amount of interest and that the depositor can reclaim the full value of the account according to the agreed upon procedures governing the account (Bhandari, 2003, p.73). The account holder retains rights to their deposit, although restrictions placed on access depend upon the terms and conditions of the account and the provider. The deposit account would be shown as a liability owed by the bank to its customer.

Commercial Bank Act 2031 defines “Deposits” as the amount deposited in a current, saving or fixed accounts of a bank or financial institution. The deposits are subject to withdrawals by means of cheque on a short notice by customers. There are several restrictions on these deposits, regarding the amount of deposit, numbers of withdrawal etc. they are used more as investments and hence they earn some interest. The rate of interest varies depending on the nature of the deposits. The bank attracts deposits from customers by offering different rates of interest and different kinds of facilities.

2.2.4 Types of Deposit

A bank takes various types of deposits from individuals, business organizations and other different types of institutions. Normally, they are classified into two types:

Interest Bearing Deposits

Deposit in which banks are required to pay interest is known as interest bearing deposit. Savings, term, call and recurring deposit are interest bearing deposits.

Saving Deposit:

According to Commercial Bank Act 2031 (1974) saving account means “An account of amounts deposited in a bank for savings purposes.” The saving deposit bears the features of both of the current and fixed period’s deposits. Saving accounts are mainly meant for non-trading customers who have some potential for saving and who don’t have numerous transactions entering their account. The bank fixes the minimum and maximum amount of withdraw able through a cheque from this deposit.

Fixed Deposit:

According to the Commercial Bank Act 2031 (1974), “Fixed account means as account of amounts deposited in a bank for certain period of time.” Only the person or institution who wants to gain more interest opens such type of account. High interest rate is paid to this deposit as compare to saving deposits. The bank and the customer can take benefit from this deposit. The principal amount with interest must be returned to the customer after expiry of fixed time. Fixed deposit receipt is not transferable by endorsement and certainly not negotiable. However the debt covered by the fixed deposit receipts can be assigned. Bank generally gives loans up to 90% of the deposit against the security of the deposit. For this bank charge some interest higher than the interest allowed on the deposit.

Interest Free Deposit

Deposits in which banks do not pay interest are known as non-interest bearing or interest-free deposits, namely:

Current Deposit:

The deposit in which an amount is immediately paid at the time of any account holder’s demand is called demand deposit. These accounts are also called demand deposits or demand liabilities since the banker is under an obligation to pay money in such deposits on demand. These accounts are generally opened by business houses, public institutions, and corporate bodies. This type of account is just a facility offered by the bank to its customers. So such deposit doesn’t yield any interest return. Therefore, the bank doesn’t give interest on this account. For this study this types of deposit is not suitable.

Margin Deposit:

Banks issue L/C, guarantee etc. on behalf of its customers for a specified sum of money. These amounts have to be paid to the beneficiaries of aforesaid instruments provided they claim as per the terms and conditions agreed upon. Thus banks are exposed to contingent liability. To reduce the liability, banks ask customer to deposit a certain amount (varies as per the credit standing of the customer) as the margin of safety which is known as margin

deposit. Banks open a fictitious margin account in the name of the borrower to put such amount and interest is not paid in such deposit. Margin deposit is returned to the customer if the beneficiary does not lodge a claim.

2.2.5 Concept of Lending (Credit)

The word 'Credit' means 'trusting'. In credit transaction, the lender (or banks) must have confidence in the borrower that she/he will be able to repay the money. In credit transactions, the creditor turns over to the debtor to repay an equivalent amount usually money in future plus an added sum called interest. In other words, the commercial bank earns profit by lending the amount in terms of loan or credit and in return it gets interests.

Banks loan are classified as (a) Loan advances (b) Overdraft (c) Cash credit (d) Discounting of bills and so on. But besides this, the other forms of credit are: Bills Exchange, Cheques, Drafts, Promissory Note, Travelers' Cheque, Treasury Bills (T-Bills), Letter of Credit (LC), Book Credit etc. (Shrestha & Bhandari, 2004, p.255).

Bank is the major sources of credit to both private and public debtors. Sometimes banks also take credit. There is another type of credit known as investment credit and commercial credit which can be divided according to the purposes of using credit. The former refers to the credit which is used for investment and the latter for trade purposes. Similarly, another classification is consumer's credit and producer's credit. The latter type of credit is the advances made to individuals firms, companies and governments, which are used to facilitate the production of goods and services.

2.2.6 Types of Loan/Credit

Secured Loan:

A secured loan is a loan in which the borrower pledges some asset as collateral for the loan. If the borrower defaults on the loan, the bank would have the legal right to repossess the house and sell it, to recover sums owing to it. For example, mortgage loan.

Unsecured Loan:

Unsecured loan are monetary loans that are not secured against the borrowers assets. For example, Credit card debt, personal loan, bank overdraft, credit facilities and corporate bond etc.

2.2.7 Concept of Inflation

Inflation in common sense is increment in general or average price level in the whole economy. It means that is the increase in general price level, not it increase in individual prices. Inflation is not a temporary fluctuation in price but it is a sustained and appreciable increase in price (Joshi, 2056, p.364). Due to the increase in general level in price, the value in purchasing power of money declines as there is an inverse relationship between the general level of price and value of money.

Relationship between Inflation and Interest Rate:

Inflation occurs when the average price level in the economy rises. Interest rates present the price of credit. Are they also affected by inflation? The answer is ‘Yes’. There is positive correlation between interest rates and inflation rates.

The Fisher Effect:

In countries where inflation is expected to be high, interest rate also will be high, because investors want compensation for the decline in the value of money. This relationship was first formalized by economist Irvin Fisher and is preferred to as the Fisher Effect. According to Fisher Effect, nominal interest rate is related to the real rate by the following equation.

$$\text{Nominal Interest Rate} = \text{Expected Real Rate} + \text{Inflation Premium Rate}$$

Clearly, if the expected real interest rate is held fixed, changes in nominal rate will reflect shifting inflation premium. It means that if inflation premium increases then nominal interest rate also increases.

2.3 Theoretical Review

Various interest rate theories have been developed by various economists, which describe how interest rate is determined in various situations. As we will see, differences in risk, liquidity, marketability, and maturity are important factors that causes real-world interest rates to differ from the pure or risk-free rate. First, however, we must examine the forces that, in theory, determine the pure or risk-free interest rate itself (Thapa, 2067, p.337). Here, we present four different theories of interest rate determination.

2.3.1 The Classical Theory of Interest Rate

One of the oldest theories concerning the determinants of pure or risk-free interest rate is the classical theory of interest rates, propounded during the 18th and 19th century by a number of British economists and elaborated by Irving Fisher in 1930. The classical theory argues that the rate of interest is determined by following forces:

Saving by Households:

Generally most of the savings in modern industrialized economies are carried out by individual and families. For these households, saving is simply abstinence from consumption spending. Generally, the volume of household savings rises with income. Although income levels probably dominate saving decisions, interest rate also plays an important role. Interest rates affect an individual's choice between saving and current consumption. Therefore, the only way to encourage an individual or family to consume less now and save more is to offer a higher rate of interest on current savings. Higher interest rate increases the attractiveness of saving for some quantity of current consumption. This so-called **substitution effect** calls for a positive relationship between interest rates and the volume of savings. Higher interest rates bring forth a greater current volume of savings.

Saving by Business Firms:

Most businesses hold savings balances in the form of retained earnings. In fact, the increase in retained earnings reported by business each year is a key measure of the volume of current business saving. The result is a reduction in the demand for credit and a tendency toward lower interest rates. On the other hand, when profits falls but firms do

not cut back on their investment plans, they are forced to make heavier use of the money and capital markets for investment funds. The demand for credit rises and interest rates may rise as well. Higher interest rates in the money and capital markets typically encourage firms to use internally generated funds more heavily in financing projects. Conversely, lower interest rates encourage greater use of external funds by raising it from the money and capital markets.

RE = After tax corporate profits - Dividends

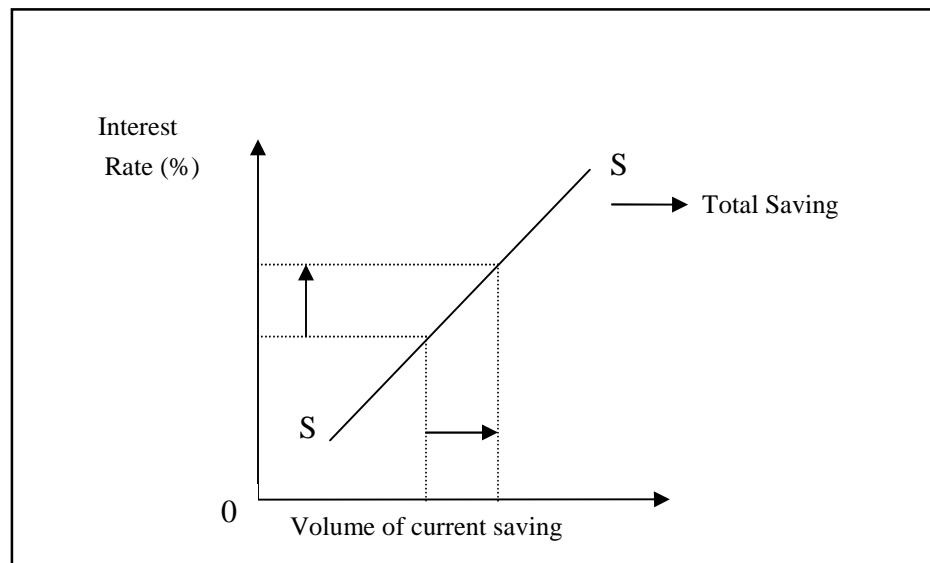
Saving by Government:

In fact, most government saving (i.e. a budget surplus) appears to be unintended saving that arises when government receipts unexpectedly exceed the actual amount of expenditures.

Total saving = Personal Saving + Business Saving + Government Saving

The total supply of fund is summing of above three elements as SS on figure no. 2.1.

Figure No. 2.1
The substitution effect relating saving and interest rates

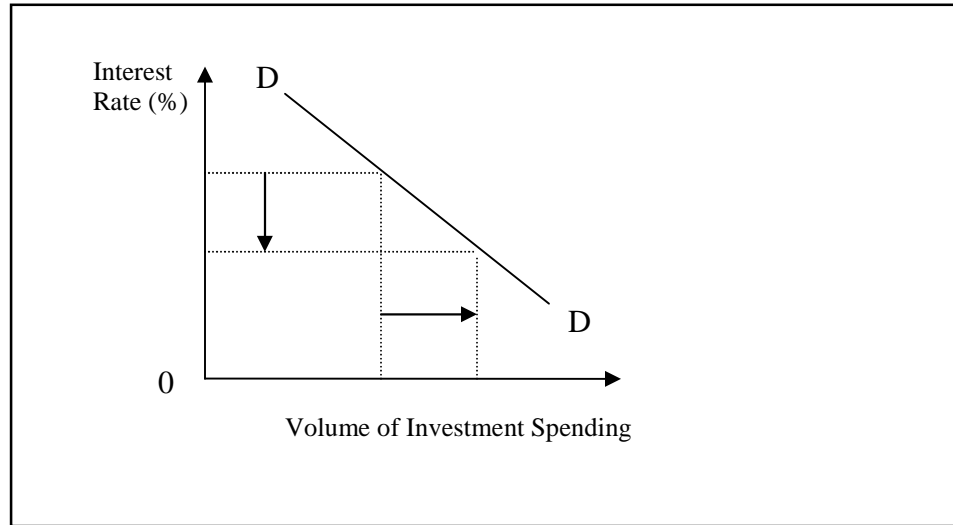


The Demand for Investment Funds:

The other side is investment spending, made by business firms, government and in some cases households. But according to the classical economist, interest rate and invest able

fund have inverse relationship. At low rates of interest, more investment projects become economically viable and vice versa, as DD on Figure no. 2.2.

Figure No. 2.2
The Investment Demand Schedule



The Equilibrium Rate of Interest in the Classical Theory of Interest:

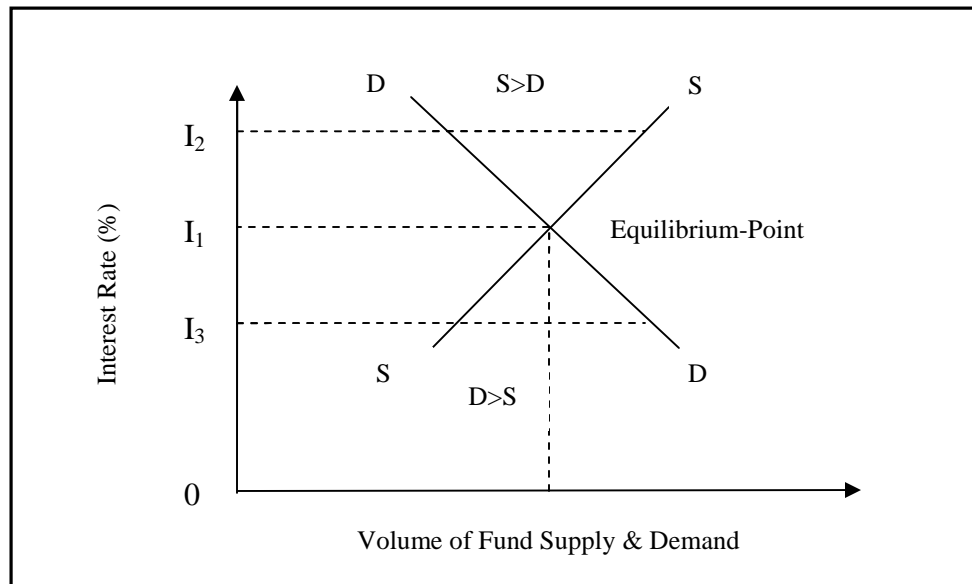
Specifically, the equilibrium rate of interest is determined at the point where the quantity of savings supplied to the market is exactly equal to the quantity of funds demanded for investment. To support this in figure no. 2.3 this occurs at point E where the equilibrium rate of interest is I_e and the equilibrium quantity of capital funds traded in the financial markets is Q_E .

The market rate of interest moves towards its equilibrium level. However, supply and demand forces change so fast that the interest rate rarely has an opportunity to settle in at a specific equilibrium level. If the market rate is temporarily above equilibrium, the volume of savings exceeds the demand for investment capital creating an excess supply of savings. Savers will offer their fund at lower and lower rates until the market interest rate approaches to equilibrium. Similarly, if the market rate is temporarily below equilibrium, investment demand exceeds the quantity of savings available. Business firm

will bid up interest rate until it approaches the level at equilibrium. We can couple the supply of money and money demand on the same graph in the following figure no. 2.3.

Figure No. 2.3

The Equilibrium Rate of Interest



The equilibrium interest rate is the point at which the quantity of money supplied equals to the quantity of money demanded. At any other interest rate, this condition does not hold and, in the money market, it will force the interest rate to the equilibrium level.

2.3.2 The Liquidity Preference Theory of Interest Rates

The liquidity preference theory of Interest Rate focuses on the interaction of the demand and supply of money. John Maynard Keynes (1936) developed a short-term theory of interest rate that was more relevant for policymakers and for explaining near-term changes in interest rates.

According to this theory, the rate of interest is the payment to money (cash balances) holder for the use of their scarce resource (liquidity), by those who demand liquidity (i.e. money or cash balances) (Thapa, 2067, p.342).

The Demand for Liquidity:

Keynes argued that the rate of interest is really a payment for the use of a scarce resource, money or cash balances. Interest rates are the price that must be paid to induce money holders to surrender a perfectly liquid asset (cash balances) and hold other assets that carry more risk. Interest rates are the 'price' of liquidity. An investor demands for money for the following purposes: (i) to hold money (ii) to purchase the bond

Motives for Holding Money (Perfect Liquidity):

If you hold the money, it provides a perfect liquidity. Liquidity preference plays vital role in the interest rate determination; if the liquidity preference is high interest rate will also be high and vice versa. On the other hand, if interest rate in the market is high, this encourages the investor to reduce their cash balance and the bond. In contrast when the market interest is low, people liquidity preference will increase then bonds.

According to Keynes, the public demand for money for the following different purposes:

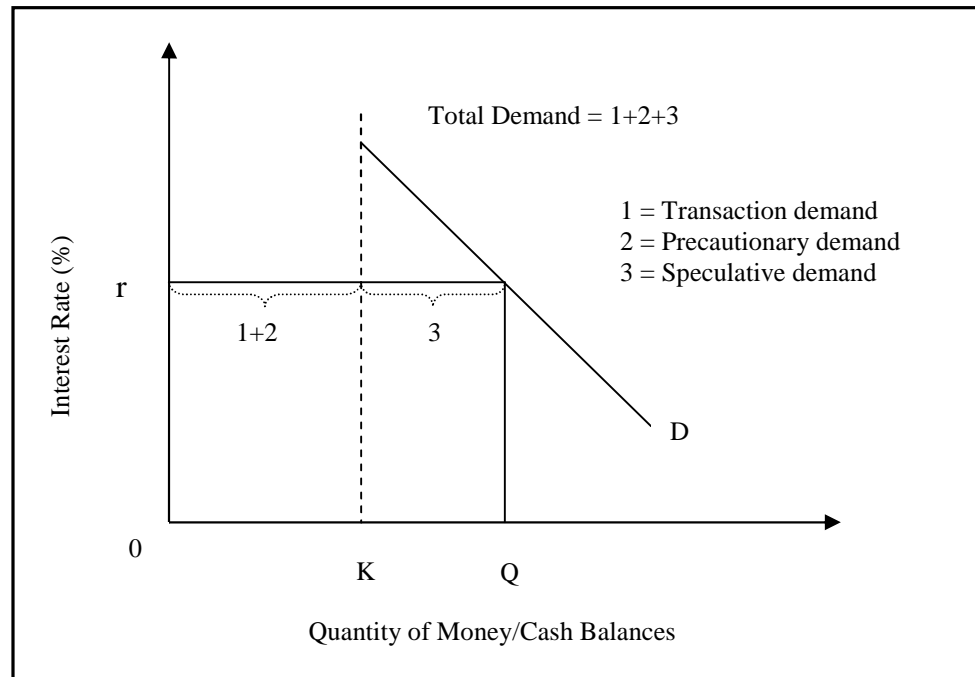
-) Transaction Motive:
-) Precautionary Motive:
-) Speculative Motive:

The Total Demand for Money

Total demand for money is made up of transactions, precautionary and speculative demands for money. Transactions and precautionary demands are tied to the level of income in the economy and interest rates, while the speculative demands for money are related to expectations of changes in interest rates. Therefore, the total demand for the

money in the economy is simply the sum of transaction on precautionary and speculative motive. The total demand for money shows on the graph in the following figure no. 2.4.

Figure 2.4
The Total Demand for Money or Cash Balances in the Economy



Supply of Money (Cash Balances)

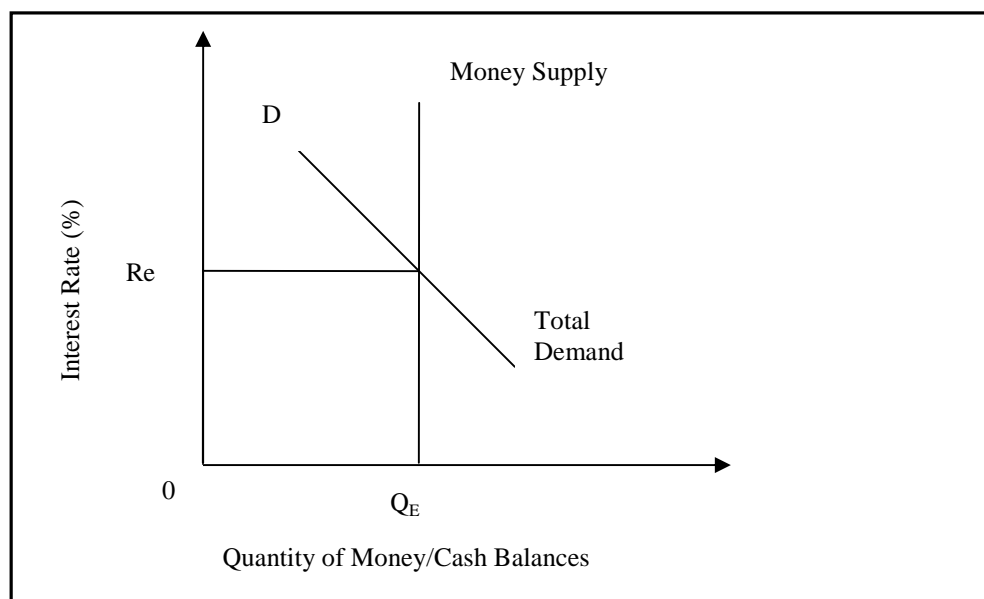
The supply of money is controlled by the central bank. Because the central bank's decisions concerning the size of money are guided by public welfare, not by the level of interest rates, we assume that the supply of cash balances is inelastic with respect to the interest rate.

The Equilibrium Interest Rate in the Liquidity Preference Theory

The interplay of the total demand of money and the supply of money or cash balances determine the equilibrium rate of interest in the short run. The equilibrium rate is found at point r_e , where the total quantity of money demanded equals the quantity of money supplied. Above this equilibrium rate, the supply of money exceeds the quantity

demand, and some businesses, households, and units of government will try to dispose of their unwanted cash balances by purchasing securities. The prices of bonds will rise, driving interest rates down toward equilibrium at r_e . On the other hand, at rates below equilibrium, the quantity of money demanded exceeds the supply. Some decision makers in the economy will sell their securities. The Equilibrium interest rate shows on the graph in the following figure no. 2.5.

Figure 2.5
The Equilibrium Interest Rate in the Liquidity Preference Theory



2.3.3 The Loan able Funds Theory of Interest

A view that overcomes many of the limitations of the earlier theories is the loanable funds theory of interest rates. This view argues that the risk-free rate of interest is determined by the interplay of two forces: - the demand and supply of credit (loanable funds). The demand for loanable funds consists of credit demands from domestic businesses, consumers, and government, and also borrowing in the domestic market by foreigners. The supply of loanable funds stems from two sources domestic saving and new money.

Consumer (Household) Demand for Loanable Funds:

Domestic consumers demand loanable fund is inelastic with respect to change in interest rate. Slightly the rise in interest rate leads to reduce in demand for loanable fund and vice versa. Whereas, the decline in interest rate is stimulate the borrowing.

Domestic Business Demand for Loanable Funds:

Demand in fund by business sector increase when falls in interest rate and vice versa. The credit demands of domestic businesses generally are more responsive to changes in the rate of interest than in consumer borrowing.

Government Demand for Loanable Funds:

The demand for loanable funds by government doesn't depend upon the level of interest rate. It is inelastic with interest rate. Moreover, in case of central government, it has the power both to tax and to create money to pay its debts. State and local government demand on the other hand, is slightly inelastic because many local governments are limited in their borrowing activates by legal interest rate ceilings.

Foreign Demand for Loanable funds:

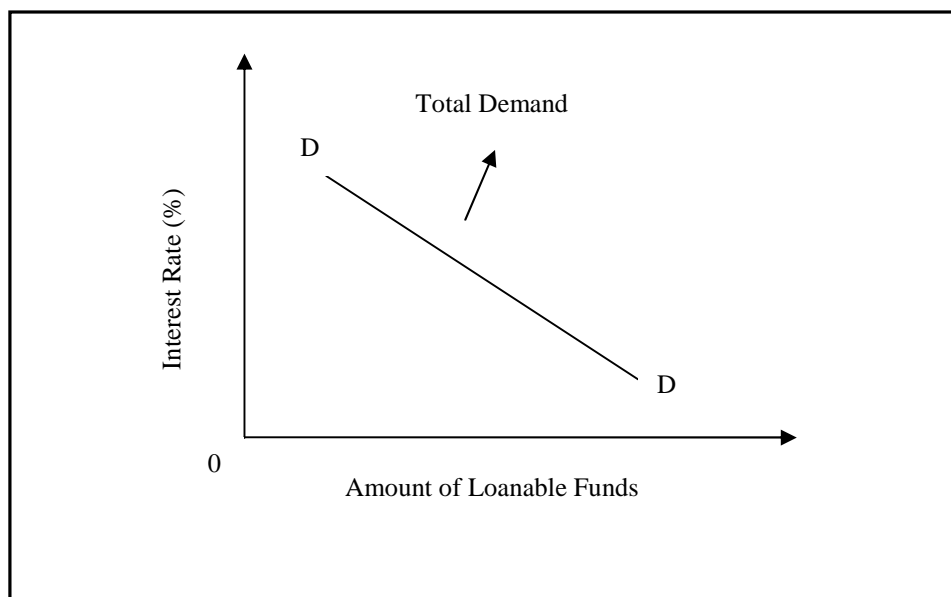
Foreign demand if influenced by domestic lending rate and interest rate in the foreign market. If the interest rate in the domestic country decline related to foreign rates, foreign borrowers will be attracted in the country (our) and vice versa.

Total Demand for Loanable Funds

Total demand for the loanable fund is the sum of domestic consumer, business Government, and the foreign credit demands. Higher rate of interest lead some businesses, consumers and governments to curtail their borrowing plans; lower rates brings forth more credit demand. The total demand for loanable fund is shown in the following figure no. 2.6.

Figure 2.6

Total Demand for Loanable Fund



The Supply of Loanable Funds

Loanable funds flow into the money and capital markets from at least four different sources:

1. Domestic Saving

Saving refers to the postponement of current consumption. Domestic saving is by businesses, consumers and governments. The principal is the source of loanable funds (Thapa, 2067: p345). There are income effect, substitution effect and wealth effect for saving.

2. Disharding

Disharding appears when interest rate in the economy (market) increases or decreases in the prices of the security. Disharding will reduce when the market interest rate lowers and prices of the security increase. Therefore, the different between public demand for money and supply of money is disharding.

3. Creation of Credit

One of the important functions of commercial bank is the creation of credit. It is the banking system as a whole which can expand loans by many times of its excess cash reserves. Further, when a loan is advanced to an individuals or a

business concern, it is not given in cash. The bank opens a deposit account in the name of the borrower and allows him to draw upon the bank as and when required. The loan advanced becomes the gain of deposit by some other bank (Vaidya & Shakespeare, p.17).

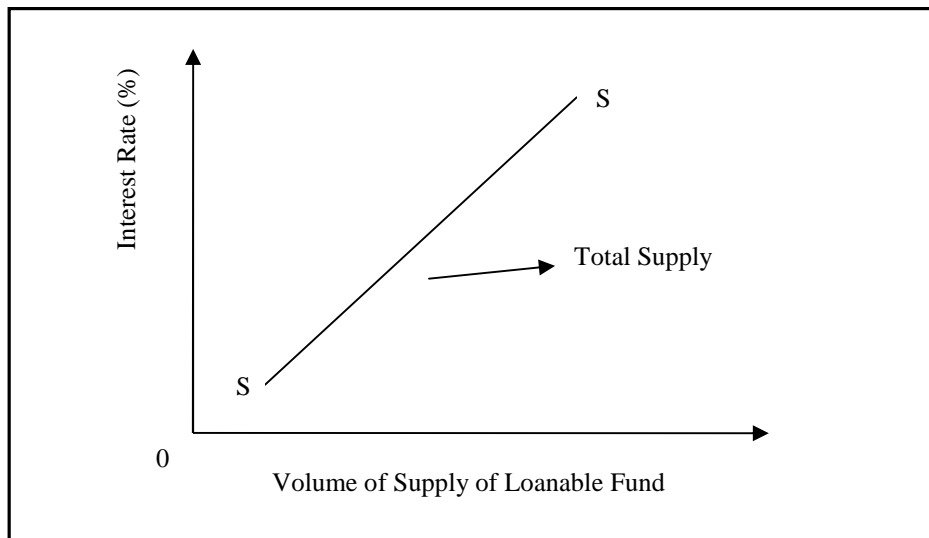
4. Lending by the Foreigners

An inflow of loanable funds in the domestic country from outsiders dependent upon the interest rate is in the domestic country and interest rate in the foreign country. If domestic interest rate rises relative to the foreign interest rate, the supply of foreign fund increases in the domestic country and vice versa.

Total Supply of Loanable Funds

The total supply of loanable funds, including domestic saving, foreign saving, dishoarding of money, and new credit created by the domestic banking system, is depicted below (Thapa, 2010, p.346). The total supply of loanable fund is shown on the graph in the following figure no. 2.7.

Figure 2.7
Total Supply for Loanable Funds (Credit)



The curve rises with higher interest rates, indicating that a greater supply of loanable funds will flow into the money and capital markets when the returns from lending increase.

The Equilibrium Rate of Interest in the Loanable Funds Theory of Interest Rate:

The interest rate tends toward the equilibrium point at which the supply of loanable funds equals the demand for loanable funds. Only when the economy, the money market, the loanable funds market, and the foreign currency markets are simultaneously in equilibrium will interest rates remain stable. A stable equilibrium is characterized by the following:

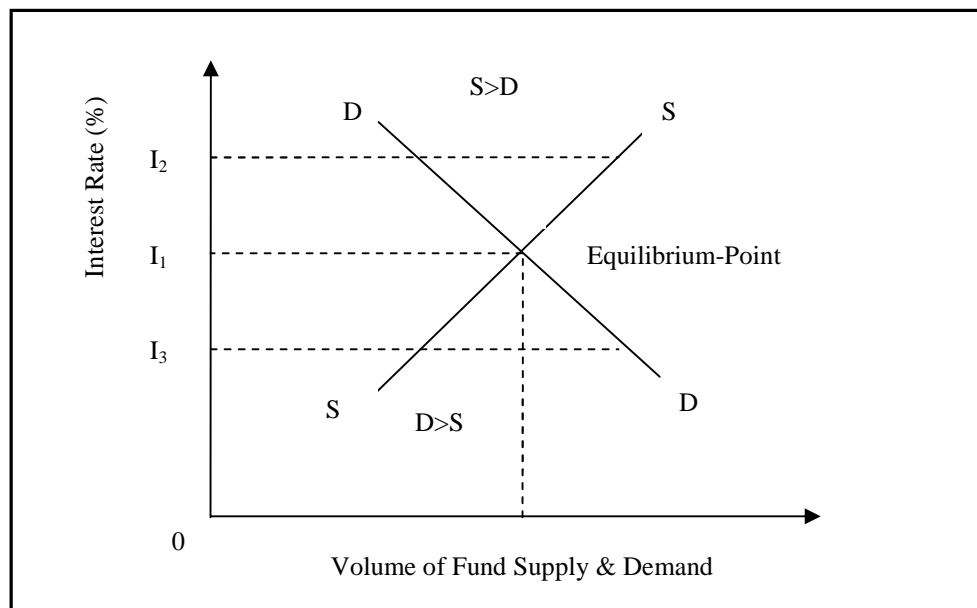
At equilibrium:

- Money supply = Money demand
- Supply of loanable funds = Demand for loanable funds

The equilibrium rate of interest rate is shown on the following figure no. 2.8.

Figure 2.8

The Equilibrium Rate of Interest in Loanable Funds Theory



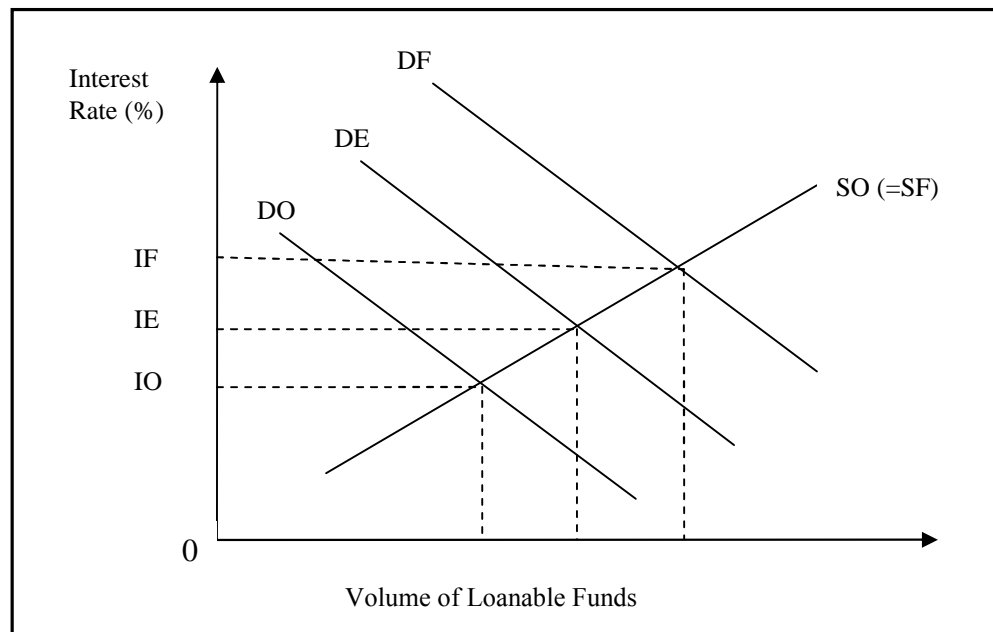
In the above figure equilibrium rate of interest I_1 will form at the point where there is equal in the demand for and supply of fund. If the market interest rate is higher than I_1 , then the total supply of the fund exceed over the total demand. The lender will bid down the interest until it approaches to the equilibrium I_1 . When the market interest rate become lower than I_1 , then demand exceeds over the supply, the borrower bid up the interest and again becomes in equilibrium rate in I_1 .

2.3.4 The Rational Expectations Theory

This expectations theory assumes that businesses and individuals are rational agents who form expectations about the distributions of future asset prices and interest rates that do not differ significantly from optimal forecasts made from using all the available information that the marketplace provides (Rose, 2003, p.133-136).

The equilibrium interest rate is shown on the graph in the following figure no. 2.9.

Figure 2.9
Equilibrium Interest Rates under Rational Expectation Theory



In the above figure, S_0 and S_F represent the actual supply and demand for loanable funds in the current period, while DF reflects the actual demand for loanable fund that will prevail in the next time. The supply of loanable funds is assumed to be the same in both time periods ($S_0=S_F$). Now imagine that during the current periods, the government makes an unexpected announcement of its increased need to borrow more money in future period F due to an unusually large budget deficit. The result is now expected demand for loanable fund curve DE , projected to prevail in the next periods F but as viewed by borrowers and lenders today in time periods 0 .

In this case, the equilibrium interest rate in the current period will not be I_0 , but rather IE , where the expected demand curve (DE) intersects the actual supply curve S_0 . When the future period arrives, the equilibrium interest rate will rise to rate IF and the quantity of loanable funds traded will be CF . The equilibrium rate moves upward because the demand for loanable funds in periods F is more than the expected future loanable funds demand as seen by market participants, in period 0 (Paul & William, 1992, p. 469).

2.4 Empirical Review

Under this heading, presents the review of the relevant studies and research articles are published in the different economic journals, dissertation papers, magazines, newspaper, websites and other related materials have been consulted. There are very few thesis and research papers and articles submitted. The review and the extract from them are presented in this section as follows:

2.4.1 Review of Related Books and Studies

Keynes (1936 p.136) "The general theory of employed interest and money" in J. M. Keynes book brought forwards his view about the rate of interest. Community's liquidity preferences and quantity of money and rate of interest are negatively correlated. At low rate of interest the liquidity preferences of community is high and it is low at high rate of interest. According to the modern view interest rate determination deepens upon the investment, the marginal efficiency of capital is the rate of interest and investment is

equal to the desire volume of saving. Thus, the total investment total saving or $I = S$ Keynes said that the three divisions of liquidity preference are;

- a. The transactions motive i.e. the need of cash for the current transaction of personal and business exchanges.
- b. The precautionary-motive i.e. the desire for security as to the future cash equivalent of a certain proportion of total resources; and.
- c. The speculative-motive i.e. the object of securing profit from knowing better than the market what the future will bring forth.

Maxwell (1974), Opines that the interest rate fixing authorities cause adverse effects on income distribution. The interest rates are beneficial especially for the small savers. According to him interest rate affects the saving and mobilization. A high interest rate diverts the resources from unproductive tangible assets into financial claims. For Nepalese people and Nepalese undeveloped money and capital market interest rate can be taken as an important weapons in mobilizing the interest resources, here interest rate plays as a market clearing device. Higher interest rate pushed people to some money and it allows people to invest into opportunities. Low interest rate attracts the small borrowers. In Nepalese context investor are bound to take loan from unorganized sectors and have to pay high rate of interest. This high rate of interest affects on their return on investment. Interest rate risk exists in conditions in financial markets will later the balance between the supply and the demand for loanable funds.

Samuelson & Nardhus, (1993), Mentioned about the impact of changing rate of interest. Interest rate affects the interest earning and interest expenses. The spread changes according to the changes the interest rate. The changes in risk less rate of interest caused the whole spread some times, up and sometimes down.

Robinson, (1951), through their book, "The Management of Bank Funds" has tried to analyze the relationship of interest rate of bank under an economic approach. They State "To maximize profit, Bank should attract the interest rate paid on deposit".

2.4.2 Review of Journals and Articles

An article published in **New Business Age, September 2004 A.D.** entitled “All Banks in Profit”, focused that in general all banks for the fiscal year 2003-2004 A.D. are bullish in their performance. During the year all the banks were in profit but in the previous year, the commercial bank, whose different of interest rate on deposit and interest rate on lending is higher were in a gain or strength position.

Bhandari, (2007) conducted his article on “The impact of Interest Rate Structure on Investment Portfolio of Commercial Banks in Nepal”. The objective of the study is given below:

- a. To present and analysis interest rate structure of commercial banks in different time period.
- b. To assess the impact of interest rate structure of commercial banks of their investment portfolio by analyzing their deposits, loans, advances, interest spread, investment and bills purchased and discounted.

In his analysis two commercial banks and three joint venture banks are taken for the purpose of the study. Most of data and information and data have been collected from discussion and interview; both the financial and technical tools are used for the analysis of data. Finally he has concluded follows:

- a. Rates of commercial banks have been fluctuating. Deposit and lending rate were increased immediately after linearization of the interest rate on august 31, 1989, but however started to decline which have helped in increasing the credit flow.
- b. Interest rate structure has direct influence on profitability of commercial banks. Decreasing lending rates helps to increase the profitability through increasing the credit.
- c. Most of the banks are having similar interest rate structure, which lesions the importance of linearization of interest rate.

Bajracharya, (2010), in his article, “Monitory Policy and Deposit Mobilization in Nepal” concludes that mobilization of domestic saving is one of the prime objectives of the monitory policy in Nepal and for this purpose CBs are the vital active financial intermediary for gathering resources in the form of deposit of the private sectors and providing credit to the investors in different sectors of the economy.

Pant, (2012), in his article, “A study of CBs Deposit & its Utilization” has made an attempt to highlight the discrepancy between resources collection and utilization. He concluded that CBs failure in resource utilization is due to their lending confined to short term only. He recommended the CBs to give emphasis also on long and medium term lending for better utilization of the deposit.

An article published in **Kantipur Daily News, July 06 2010 A.D.**, “Crisis Impact Delayed Here: IMF - International Monetary Fund (IMF)” has said Nepal’s economy is experiencing a delayed impact of the global economic crisis.

Paudel, (2013) in his article, “NRB Directives and effect of Interest Rate of Commercial Banks” has made an attempt the effect of NRB directives of Nepalese commercial banks to regulate all the financial activities as well as formulate and implement necessary financial rules and regulations in the country.

2.4.3 Review of Previous Thesis

In the preparation of this thesis, several studies have been conducted by different researchers. Some of them, very few theses are submitted to be relevant for the justification of need and importance of this study is presented from published and unpublished sources as below:

Khatry (1995), entitled “Interest Rate Structure and its relation with Deposits, Inflation and Credit in Nepal” shows the relationship between interest rate and other economic variables like deposit, inflation and credit flow.

Parajuly (2005), entitled “Interest Rate and its relation with Deposit, Lending and Inflation in Nepal” has the following major findings which are summarized as below:

- a. Most of the commercial banks contradict the general financial theories.
- b. The relation between amount of deposits and interest rate on deposit, in general concept, must be positive.
- c. The relation between total amount of loan and the lending rate are negative and significant.
- d. The interest rate of all sample banks is found to be in decreasing trends.

Bhatta (2006) conducted a study entitled “Interest Rate and its effect on Deposit and Lending” with the following objectives:

- a. To examine the relationship between interest rate and deposits.
- b. To examine the relationship between interest rate and loans.

The conclusions drawn by Bhatta are as follows:

- a. Deposit rates of all the sample banks under study are in decreasing trend; means that every year deposit rates of sample banks under study have decreased.
- b. Lending rates of all the sample banks under study are also in decreasing trend; means that every year lending rates of sample banks under study have decreased.
- c. Analysis shows that interest rates on lending are far higher than deposit rates of sample banks. The correlation coefficient between these two variables (deposit rate and lending rate) of sample banks comes highly positive.

Finally, conclusion about study, in Bhatta words- “There is significant relationship between deposit rate and deposit amount and lending rate and lending amount of almost commercial banks except one. Test of significance for correlation coefficient between inflation rate and deposit and lending rate shows that these variables are not correlated”.

Sharma, (2007) carried out a study entitled “Interest rate and its relation with Deposit, Lending and Inflation in Nepal”. In this study, the disseminator tries to portrait the

relation of interest rate with deposit and lending amount (i.e. existence of substitution effect).

The major findings drawn by Sharma are as follows:

- a. The interest rate on both deposit and lending of all the sample banks are found to be in decreasing trend. Theoretically, there is positive relationship between saving amount and saving interest rate but here negative relationship is found. It states that there is no substitution effect in Nepalese financial market.
- b. Analysis of fixed deposit amount and fixed interest rate shows negative relationship except RBB and NBL.

Neupane, (2008) entitled, “Interest Rate structure and its influence on Deposit and Lending of Joint Venture Banks in Nepal”. The major objectives of this study are,

- a. To analyze the relation between interest rate with deposit and lending.
- b. To analysis the interest rate and its impact on profitability.

The major findings of the study are:

- a. The interest rate of all sample banks is found to be in decreasing trends.
- b. Analysis of sample banks has shown that interest rate on lending are far higher than deposit rates.
- c. Lending interest rate of CBs have decreased every year which provide better opportunities for the borrower’s investors.

Upadhyaya, (2010), another study was made on the topic “Impact of Interest Rate on Deposit and Lending of Commercial banks in Nepal.” Upadhyaya has shown the influence of interest rate on deposit lending and inflation in Nepalese Joint Venture Banks. The conclusions are drawn by Upadhyaya as follows:

- a. The interest rates on both deposit and lending of all sample banks are found to be in fluctuating trend.
- b. The saving deposit amount and saving interest rate have negative relationship.

- c. The relationship among interest rate on deposit and inflation rate is positive.
- d. The correlation between interest rate on lending and inflation rate is found to be negative.

Bhattraï, (2010) entitled “Relationship of interest rate with deposit, lending and inflation in Nepal”, an unpublished master level thesis shows that Nepalese banking sector is affected by long term economy factors like; economic and business growth rate, reduction of lending opportunity due to terrorism, conflicts, insecurity. Because of unavailability of investment opportunities, Nepalese banking sectors are suffering from over liquidity in recent years as shown by increasing trend of deposit and decreasing rate on such deposit. In some years, he has found that there is negative interest rate on deposit. Similarly, there is negative relationship between interest rate and inflation rate. Generally, CBs charges high interest rate on lending than the development banks.

Shrestha, (2011) carried out a study entitled “Interest Rate Assessment of Commercial Bank and its impact on Deposit and Lending”. Shrestha has shown the influence of interest rate on deposit and lending in Nepalese commercial banks. The conclusions are drawn as follows:

- a. The interest rate of all sample banks is found to be in decreasing trends.
- b. Analysis of sample banks shows that interest rates on lending are far higher than deposit rates.
- c. Analysis of samples banks concludes that interest rate on deposit is to be found so low which does not attract the depositor.
- d. Lending interest rate of sample banks have decreased every year which provide better opportunities for the borrower’s investor.

Pokhrel (2011) entitled “Interest rate and its relation with deposit, lending and inflation in Nepal.” The main objectives of this study are,

-) To explore the relation of interest rate among the three variables i.e. deposit, lending and inflation.

-) To compare the impact of spread rate of bank of deposit and lending.

The main conclusions he has drawn on the study are,

-) There is negative relation between lending amount and lending rate.
-) There is positive relation between deposit amount and deposit rate.
-) Deposit depend the factor besides income, inflation and interest rate.

Aryal, (2012) entitled, “Interest Rate & its impact on resource mobilization in Nepalese Commercial Banks.” He has conducted the influence of interest rate and impact of Nepalese CBs with utilization of resources mobilization. The major findings of this study are,

-) Analysis of sample banks concludes that deposit rate is found low which does not attract the depositors.
-) Interest rate has greater influence over the resource mobilization and utilization in the productive sector.
-) Sample banks under study show weak on mobilization of collected deposits.

Adhikari (2013), study on a thesis “An Analysis of Interest Rate Structure of CBs in Nepal”. The major objectives of this thesis are as follows:

-) To analyze the structure of interest rate in organized financial institutions.
-) To examine implications of interest rate spread on lending and deposit practices.

The major findings of this thesis are as follows:

-) Lending rate is higher in the comparison of deposit rate.
-) Deposit mobilization has not been significantly up despite higher interest rate on deposit, on other hand, the total outstanding credit has encouraging growth.

2.5 Review of Policy Document

Interest Rates of Commercial Banks is dominated by the rules, regulations, policies and directives of Nepal Rastra bank. NRB is playing a leading role in the economic and

financial sector of the Nation. The deregulation of interest rates has provided autonomy to commercial banks to determine their own interest rate on deposits and loans but the disparity should not exceed more than 6 percent. After the establishment of NRB, it held the authority of controlling commercial banks from and financial institutions. NRB had actively formulating the monetary policies and fixing the interest rates.

According to this policy NRB control over the commercial banks statutory reserve of liquid assets. Sometimes controlled and sometimes provide facility in the determination of interest rates on deposits and loans of commercial banks.

The following table no. 2.1 shows the development of interest rate in the Nepalese Financial Markets:

Table No. 2.1
Phase-Wise Development of Interest Rate

1960	Sole monopoly of NRB to fix interest rate on deposit and loans.
1976	NRB empowered to determine interest rate.
1980	Process continued for NRB to fix interest rate and banks and financial institution to follow it.
1986	Freedom to commercial banks to offer higher interest rates from the minimum level of interest rate fixed by NRB
1989	Interest rate fully deregulated.
1992	Issue directive to commercial banks to spell out interest rate policy encouraging competition in interest rate.
1993	Spread not to exceed 6 percent.
1999	Decrease spread to 5 percent.
2002	Removal of spread restriction.
2005	Continuing of interest rate independence of banks and financial institution
2008	Emphasis of decreasing the spread
2009	Trend of lower rate on deposits compare to interest change on loan.
2010	Trend of increasing interest rates in commercial banks deposits.
2011	Trend of daily interest rates on deposits in commercial banks.

(Source: Shrestha, M .K. & Bhandari, D. (2007), Financial Institutions and Markets)

Effective July, 2011, the NRB announced the deposit mobilization of ‘A’, ‘B’ and ‘C’ class BF was increased by 18.2% of fiscal year 2011/12. Then, in the fiscal year 2012/13, deposit mobilization of commercial banks was increased by 20.4% and loan and advance was increased by 16.9%. Such a loan was 14.1% in fiscal year 2011/2012. Then Credit to Deposit ratio (including capital fund) of commercial banks was remained stood at 71.7% in mid July 2013 compared to 70.1% in mid July 2012. It was 73.5% fixed in mid July 2014. Deposit of CBs was increased by 9.2% in mid July 2013. Then, the deposit of CBs was increased by 12% in mid July 2014. Effective July 16, 2014, NRB granted autonomy to the commercial banks in offering the following areas by the Monitory Policy of NRB.

Table No. 2.2
Reports of Monitory Policy

Related Areas	2071/72	2072/73
Consumer inflation rate	7.2% (target 8%)	7.4% (target 8.5%)
Weighted average interbank interest rate of CBs	0.16%	1.01%
Loan deposit ratio of CBs	71.61%	75.21%
Average base rate of CBs	8.36%	7.69%
Difference between deposit and loan interest rate of CBs		4.79% (up to 5%)
Minimum cash balance of CBs		6.0%

(Sources: Monitory Policy of NRB, 2072/73)

According to the Monitory Policy of NRB for 2015/16 delivered by Governor of Nepal on 23 July 2015, Deposits at CBs is increased by 17.0 percent, where loan and advances at CBs is increased by 16.7 percent in the review period.

2.6 Research Gap

Research gap is the difference between previous works done and the present research work (Oliver, 2008). There are various studies have been conducted in the past on

intellectual studies. And previous researchers also covered all the commercial banks and some were either case study between commercial banks. But this study focused on five particular sample banks. Earlier works conducted by the superiors in the matching topic 'Relationship of interest rate with deposit, lending and inflation of CBs in Nepal' are very useful and appreciated by personnel in various related fields, including academicians, bankers, shareholders and the general public.

This study details relation of interest rate with deposit and lending of NBL, NCC, EBL, NABIL and NIC ASIA Bank Ltd. for tries to fulfill the previous research gap. This study is completely different from others thesis. This study includes the variables like interest rate on deposit and lending rate for various sectors of five commercial banks. The data will be used for the analysis the recent one. This thesis mainly based on primary data collection (145 respondents through questionnaire) as well as secondary data collection methods (Five CBs for 2010/11 to 2014/15 time periods). This study includes different financial and statistical tools like hypothesis t-test techniques, mean, standard deviation, correlation analysis and ratio analysis.

It is Researcher hopes that this research will be an original one and it successfully presents the comparative study of interest rate of these financial institutions. So, this study will be fruitful to those interested person, investors, parties, scholars, professors, students, businessman and government for academically as well as policy perspective. Hope, this study will help to others in future in the related field. It can be a foundation for the future researchers to know about the interest rates of major financial institutions in Nepal.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

A systematic study needs to follow a proper methodology to achieve pre-determine objectives. Kerlinger, (1986), applied that “Research is a systematic, scientific, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among to the natural phenomena.” Research is a purposeful, precise and systematic search for new knowledge, skills, new facts, attitudes and values. The research method is directly connected to research problems and goals/objectives of research (Neuman, 2006). Research methodology is a systematic way to solve the research problem. In other words, it describes the methods and process applied in the entire aspect of the study. It refers to the various sequential steps to be adopted by a researcher in studying problem with certain objectives in view (Kothari, 1997, p.34).

This chapter has been designed a plan and hypothesis developed for the purpose of this study in the first chapter. Reliability and validity of research work is facilitated by research methodology and the basic objective of this chapter is to guide chapter four for data presentation, descriptive and empirical analysis of interest rate. The main components of the research methodology for the purposes of this study will now be explained as they appear in figure no. 3.1 below.

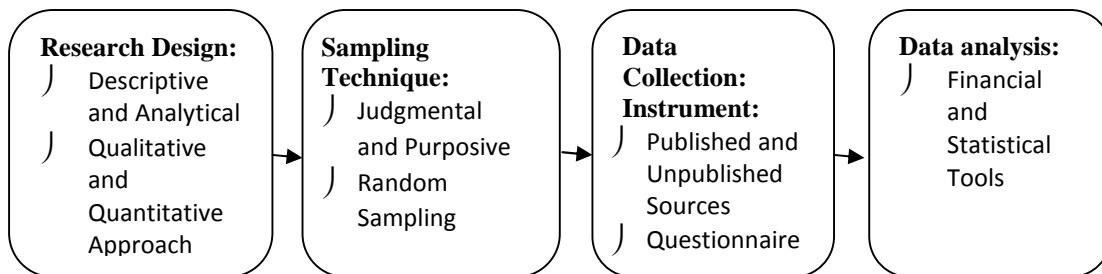


Figure No. 3.1: Research methodology

3.2 Research Design

Karlinger, (1986): “Research design is the plan, structure and strategy of the investigation conceived so as to obtain answer to research question.” Research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information (Walliman, 2006). It is a blue print for the collection measurement and analysis of data.

This research study attempts to analyze the relationship between interest rate (dependent variable) and deposit and lending (independent variables). Hence, correlation research design is used. But the present study is mainly includes different forms research design such as descriptive and analytical research approach as it is based on the case study of five commercial banks and analysis historical data from fiscal year 2067/2068 to 2071/2072. Hence, it follows both explanatory as well as analytical technique. Selection of both types of research decision views that the quality and quantity of information are to be verified.

3.3 Source of Data and Collection Procedure

This research is mainly based on primary sources of data as well as secondary sources of data to fulfill the above mentioned objectives. The primary data has conducted using survey method by taking the response from the different individuals who is involved in financial decisions through a self-administered questionnaire method. It is obtained from some depositors, lenders, managers, employers, students, lectures and professors by the method of questionnaires. The questionnaire is administered next to a sample of 145 respondents.

The secondary data are collected mainly from some published or unpublished sources after high level of efforts, more time and convincing the concerned authorities. This study is also based on qualitative and quantitative data collection method. Therefore, the accuracy of result and concussions highly depends upon the reliability of this data. The required information has been collected from concerned commercial banks.

The secondary data has been collected through,

-) Reports of Ministry of Finance
-) Thesis Supervisor and respected Professors
-) Websites and Internets
-) Financial Statements of Concerned Banks
-) Research Reports and past thesis on T. U. Library
-) Journals, Bulletins and Reports Published by NRB and others
-) Monetary Policy, Directives and Policies of NRB

Other than the above mentioned sources, the information collected through informally verbal communication with the staff of the related banks has also been used in the study.

3.4 Time Duration

This study covers the time duration of five years financial statement from fiscal year 2010/011 to 2014/015, for the purpose of analysis of interest rate with deposit and lending position of five commercial banks in Nepal.

3.5 Sampling Procedure

Sampling is the process of selecting the sample from the given population. The method of selecting is a sample usually upon the nature of the investigation (Newman, 2006). Under different techniques of sampling, random sampling method as well as judgmental or purposive sampling technique has been used in this study.

3.6 Population and Samples

The term “Population” or Universe for research means the universe of research study in which the research is based. A sample is a finite part of a population whole properties are studied to gain information about the whole. A subject of the universe selected for the study is known as sample. The number of units in the sample is called sample size (Walliman, 2006, p.65).

Sample of Secondary Data:

There are 30 Commercial Banks, 79 Development Banks, 50 Finance Companies, 36 Micro Finance Institutions, 16 NRB Licensed Co-operatives (limited banking transaction), 30 NRB Licensed NGOs (Dealing in Micro Finance), in the country. So, precisely saying all 30 commercial banks are the population size of this study and among them only five commercial banks are chosen and selected as sample size from the total population on the random basis, similarly due to unavailability of data from all the banks and financial sectors. The sample size represents the characteristics, relationship and limitations of the whole population size. There are selected five commercial banks as sample size as follows:

-) Nepal Bank Ltd. (NBL)
-) NCC Bank Ltd. (NCC)
-) NIC ASIA Bank Ltd. (NIC ASIA)
-) Everest Bank Ltd. (EBL)
-) NABIL Bank Ltd. (NABIL)

Sample of Primary Data:

The students, bankers, managers, professors, lectures, depositors and lenders in Kathmandu valley are considered as the total population. Out of them, 145 respondents are considered as target sample. The respondents have been presented as follows:

Group of respondents and sample size:

S N	Group	Number
1	Bankers and Managers	25
2	Depositors and Lenders	50
3	Lectures and Professors	20
4	Students	50
Total Frequency		145

A questionnaire is a formal list of questions designed to gather responses from respondents on a given topic (Pant, 2012). In this study, the questionnaires were distributed to the respondents through e-mails and the printed sets where applicable. Likert scale has used to generate statistical measurements of peoples 'opinions. A five point Likert scale (Summated Rating Scale) has used in the research:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Justification:

These commercial banks are very popular in the market. The selected five commercial banks as sample size some have government control and few are just purely profit oriented, merger bank, invested by foreign owner and joint venture banks. There are many other commercial banks; samples cover only five because ownership of the bank, size of the capital and establishment period is taken into consideration. All banks in the sample are operating for more than 10 years. So, these all banks are competitors. Therefore, the researcher is selecting these banks for the study of interest rate structure and relationship of interest rate with lending and deposit of commercial banks in Nepal.

3.7 Pilot Study

This pilot testing was used to understand how respondents interpret and answer the questions. The pilot testing took about 4 days. The respondents were encouraged to express their point of view freely. For testing the draft survey questionnaires was administered to a selected group of 15 respondents before conducting the major survey over the sample population. Some unnecessary questionnaires were removed completely from the set and some were amended using the simplified and concrete words to avoid confusion after the pilot study. And finally the questionnaires were kept in orders as per the dependent and independent variables.

3.8 Criteria of Good Measurement

Validity:

Validity indicates the accuracy of a measure of the study. It is concerned with systematic error. Validity refers to the truthfulness of findings. For establishing the validity for this study, through, the survey research design the questionnaires has prepared under the guidance of supervisor. A standard set of questions covers full range issues relevant to the phenomenon (Wolff & Pant, 2005). In this study, the pilot study has obtained about 15 respondents for 150 respondents as sample size.

Reliability:

Reliability means the consistency between measurements in a series. This research is reliable, because the measurement device is reliable when it will constantly produce about the same results when applied to the same samples or to different samples of the same size drawn the same population. It indicates the precision of measurement scores. Reliability values can range from -1.0 to +1.0 (Banker, 2002). For reliability, the questionnaires have developed carefully along with use of correct word and meaning. A pilot study was conducted for pre-test among certain number of respondents to detect any kind of misunderstanding in the questions. The questions have obtained by eight categories. Which means the reliability of the instrument used is acceptable.

3.9 Data Processing and Presentation

Data obtained from various sources cannot be directly used in their original form, as they are raw data. Analysis part would be difficult to understand to the readers without processing the data (Gupta, 2002). As presentations of data means to keep raw data into understandable form by editing, rechecking and using various tools such as tables, charts, figures and trend lines. From that information, direct presentation is not possible. So it is necessary to process data and converts it into required form. After then only, the data are presented for the study. This process is called data processing (Zikmund, 2007).

In this study also data are presented using all the necessary tools so as to make understand the analysis part in proper and easier way. For presentation, different tables

are used. Similarly, in some case graphical presentation is also made. For reference, the photocopies of raw data are attached in the last portion of this thesis. So far as the computation is concerned, it has been done with the help of scientific calculator and computer software program (Microsoft Excel, MS-Word and Statistical Package for Social Science (SPSS) techniques) are used to analyze and interpret the quantitative and quantitative data.

3.10 Tools for Data Analysis

The thesis is covers and includes the financial and statistical tools to analyze the data in order to reach to the conclusion of the research. In order to get the concrete results from this research, data are analyzed, by using different types of tools. The data is categorized, tabulated, processed and analyzed using different methods. Such table are interpreted and explained where necessary. Frequency distributions, means, standard deviations, coefficient of variance and correlations are calculated. To test the hypothesis (t-test), Pearson’s simple correlation coefficient determinants are used. As per the topic requirement, emphasis is given on statistical tools, so for this study the following statistical tools are going to be used.

3.10.1 Statistical Tools

Arithmetic Mean ($\bar{\epsilon}$):

The most popular and widely used measure of representing the entire data by one value is called arithmetic mean. It is the sum of the entire observations dividend by the number of observation (Sharma & Chaudhary, 2059). In this study, arithmetic mean is used as per the necessity for analysis. It is computed by using following formula:

$$\text{Mean } (\bar{\epsilon}) = \frac{\phi\epsilon}{n}$$

Where,

$\bar{\epsilon}$ = Mean

X= Sum of all variable X

N = Variables involved

Standard Deviation (S.D.):

The standard deviation is a statistic used as a measure of the dispersion or variation in a distribution, equal to the square root of the arithmetic mean of the squares of the deviations from the arithmetic mean. It is the best tools to study fluctuation in any data. It is usually denoted by the letter sigma (σ). It is also known as 'Root Mean-Square Deviation' and is computed by using following formula: (Sharma and Chaudhary, 2059, p.156).

$$\text{S.D. } (\sigma) = \sqrt{\frac{\sum (\epsilon - \bar{Z\epsilon})^2}{n}}$$

Greater the magnitude of standard deviation higher will be the fluctuation and vice versa.

Coefficient of Variance (C.V.):

It is the relative measurement of risk with return. It measures the risk per unit of return. Standard deviation is the absolute measure of dispersion. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the coefficient of variation (Goet & et al, 2010). The C.V. is defined by,

$$\text{C.V.} = \frac{\sigma}{\bar{\epsilon}} \times 100$$

It is independent of unit. So, two or more than two distribution can be compared with the help of C.V. for their variability. Less the C.V., more will be the uniformity and consistency and more the C.V., less will be the uniformity, consistency etc.

Correlation of Coefficient (r):

Correlation is an analysis of the covariance between two or more variable and correlation analysis deals with the degree of relationship between variables. The correlation analysis refers the classes of the relationship between the variables. In other words, this tool is used to describe the degree to which one variable is linearly related to the other variables. Two variables are said to be correlated if the change in the value of one variable (independent) affects the change in the other variables (dependent) (Gupta, 2002, p.380).

Correlation analysis enables us in determining the degree and direction of relationship between two variables. However, it does not tell us anything about the cause and effect relationship. Correlation may be positive or negative and range from -1 to +1. Simple correlation between interest rate and deposit amount, interest rate and credit or lending amount and interest rate (both deposit rate and lending rate) is computed in this thesis. Let's take an example that the correlation between interest rate and deposit is positive which indicates that when interest rate increases, deposit also increases in the same direction and vice versa (Sharma and Chaudhary, 2069, p.405).

For our study following reference is used:

Correlation may be positive or negative and ranges from -1 to +1. When $r = +1$, there is perfect positive correlation; when $r = -1$, there is perfect negative correlation;

-) When $r = 0$, there is no correlation and when $r < 0.5$ then, there is low degree of positive (or negative) correlation.
-) When 'r' lies between 0.7 to 0.999 (or -0.7 to -0.999), there is high degree of positive (or negative) correlation.
-) When 'r' lies between 0.5 to 0.699 (or -0.5 to -0.699), there is moderate degree of positive (or negative) correlation. (Pant and Chaudhary, 2055, p.157)

The simple correlation coefficient, r , is calculated by using following formula:

$$\text{Simple Correlation Coefficient (r)} = \frac{n\phi X_1 X_2 \sum(\phi X_1)(\phi X_2)}{\sqrt{n\phi X_1^2 \sum(\phi X_1)^2} \sqrt{n\phi X_2^2 \sum(\phi X_2)^2}}$$

Alternately,

Where,

n = Total number of observations.

X_1 and X_2 = two variables, correlation between them are calculated.

It lies between 0 and 1. The closer it is to '1', the better the linear relationship between the variables. The closer it is to '0', the worse is the linear relationship. Simple correlation between deposit rate and deposit amount, lending rate and lending amount are examined in this study.

Coefficient of Determination (r^2):

The square of the simple correlation coefficient is called coefficient of determination and it is very useful in interpreting the value of simple correlation coefficient. The main significance of the coefficient of determination is to represent the portion of total variations due to independent variable (Shrestha & Silwal, 2060, p.407).

It measures the percentage of total variation in dependent variable explained by independent variable.

$$\text{Coefficient of Determination} = (r)^2$$

Multiple Bar-Diagrams and Line Graphs

Diagrams and graphs are visual aids which give a bird's eye view of a set of numerical data which show the information in a way that enables us to make comparison between two and more than two sets of data (Sharma & Chaudhary, 2069). Diagrams are in different types. Out of these various types of diagram, the study is used one of the most important form of diagrammatic presentation of data are multiple bar diagrams, line graphs and pie-chart diagrams, which is used in cases where multiple characteristics of the same set of data have to be presented and compared.

3.10.2 Financial Tools

Financial tools are used to examine the strength and weakness of bank's performance. In this study, financial tools like interest rate spread and ratios have been used. Ratio is the mathematical relationship between two accounting figures (Lohani, 2002). Ratio analysis is used to compose a firm's financial performance and status so that of other

firm's or to it overtime. The qualitative judgment regarding financial performance of firm can be done with the help of ratio analysis (Paudel & et al, 2010). Therefore only those ratios have been covered in this study as required by the study.

Total Lending to Total Deposit Amount Ratio:

This ratio is calculated to find out how successfully the banks are utilizing their total deposit on loan and advances for profit generating purpose (Manandhar & et al, 2011). A ratio helps us showing the relationship between loans and advances which are granted and the total deposit collected by bank. A high ratio indicates better mobilization of collected deposit and vice versa. It should be noted that too high ratio may not be better from liquidity point of view. This ratio is calculated by dividing lending by total deposits (Thapa, 2012). The ratio is computed as follows:

Total lending to total deposit ratio = Total lending/ Total deposits

A high ratio of total lending to total deposits shows the better mobilization of collected deposits in the fields of lending amount.

Interest Rate Spread:

Interest rate spread is a difference between interest rate on lending and interest rate on deposit (Thapa, 2012). Generally banks charge more interest rate on lending than they provide interest rate on deposits. Interest rate spread is calculated as follows:

Interest rate spread= Interest rate on lending – Interest rate on deposit

3.11 t-tests for Significance for Correlation Coefficient

T-test is used to test whether two related population variables are correlated or not. If 'r' is the observed sample correlation coefficient of 'n' pairs of observations from variables normal population, the test statistics for significance of correlation under null hypothesis (Joshi, 2056) is given by,

Test statistics:

$$t = \frac{r}{\sqrt{1 - r^2}} \sqrt{n - 2}$$

Where,

n = sample size (pairs)

r = sample correlation coefficient

d. f. = Degree of freedom

t = Calculated Value (Sharma & Chaudhary, 2009)

After testing procedure, we come to know that whether our assumption true or false.

Level of Significance:

The maximum size of rejecting true null hypothesis is called level of significance. Also it can be defined as the level of risk. It is denoted by Alpha (α) and under this level, the hypothesis is tested. The most commonly used level of significance is 5% (Pant & Chaudhary, 1999).

$$\text{Degree of Freedom (d. f.)} = n - 2$$

Tabulated/Critical Value:

For t-test at 5% = 2.776 (two tailed)

For 'r' at 5% = 0.5 (significance)

Decision:

If Calculated Value > Tabulated Value = H_0 is Rejected or H_1 is Accepted.

If Calculated Value < Tabulated Value = H_0 is Accepted or H_1 is Rejected.

3.12 Variables

Variables are the characteristics of person, things, groups and programs etc. A variable is, thus, a symbol to which numbers or values are assigned deposit interest rate, lending interest rate, deposit amount, lending amount etc. are variables of this study.

Dependent variables:

A variable is called dependent variable, if its value depends upon the other variables. The researcher's purpose is to study analyze and predict the variability in dependent variables (Shrestha & Silwal, 2059). Here, deposit amount and lending amount are the dependent variables.

Independent Variables:

A variable is called independent variable, if it is not influenced by any other variable under this study. Any change in the independent variables, either positive or negative leads to change in dependent variables (Shrestha & Silwal, 2059). Here, interest rate on deposit, inflation rate and interest rate on lending are the independent variables. Interest rate also affected by others factors but it is taken as independent variable in data calculation.

3.13 Limitations of Research Methodology

This methodology is not free from some limitations which are listed below:

-) This study has been conducted with specific sample size and cannot represent the preference of whole population.
-) The primary data depends upon the response given by the Nepalese investors, lenders, lectures, professors, managers and bankers.
-) Some of statistical as well as financial tools of comparison and analysis should be used in the study. Hence the drawbacks and weaknesses of these tools may have an adverse effect on the outcomes of the study.
-) As the samples has been drawn at random for convinces there may exists some sampling errors. There might be chance of response errors because of factors such as unawareness of the study, hesitation of respondents, misinterpretations etc.
-) Participant error arises from feelings such as physical condition, mental and stress at the time of answering the questions under primary data collection.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

Data presentation and analysis is the one of the important part of the research work. This chapter is like a nervous system of human body, which leads to conclude through major findings, important conclusions and applicable recommendations. To make the study effective and easily understandable, this chapter is categorized in three parts: presentation, analysis and interpretation of data. In presentation section, data are presented in terms of tables, graphs, charts and figures according to need. The presented data are analyzed using different financial and statistical tools mentioned in chapter three. At last the results of analysis are interpreted. The analysis is mainly based on primary data, which was collected through the questionnaires and filled by the respondents. The analysis is also based on secondary data, through the descriptive and analytical analysis. Under descriptive analysis mean values, standard deviations, coefficients of variance, correlation coefficient, coefficients of determinations and t-statistics for significance are employed. Then, it deals with inferential analysis, which includes hypothesis testing through simple correlation analysis and t-test analysis.

4.2 Presentation and Analysis of Secondary Data

The descriptive analysis of five sample banks taken under study is described in detail in this section, which is mainly focus on Nepalese CBs; the samples include joint venture, merger, foreign owner, government and private banks. This section deals with the descriptive analysis and interpretation of secondary data collected through published and unpublished sources. The data is analyzed with the help of SPSS Software and MS-Excel. The relevant data and information necessary for the study and to show the relationship between variables i.e. interest rate on deposit and deposit amount and interest

on lending and lending amount are presented analyzed and interpreted keeping the objectives set in mind.

4.2.1 Presentation and Analysis of Interest Rates of Sample Banks

In this section, detail study of fluctuation in interest rate on deposit and interest rate on lending of sample banks is studied. For this study only saving and fixed deposits are considered because current deposit doesn't earn any interest. The interest rates are generally different in magnitude for every sample banks. These differences are due to the numerous factors like maturity period, policy of bank, goodwill of organization and so on. Hence, it is preferable to take a glance on the interest rate structure on different types of deposits. In the real world, government owned bank and banks with reputation and goodwill have lower deposit rates

4.2.1.1 Nepal Bank Limited

The average interest rates and amounts on deposit & lending are provided in different fiscal years of Nepal Bank Limited as given below:

Table No. 4.1
Deposit & Lending Rates/Amounts of NBL

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	2.95	42129.9	9.16	25074.2
2011	3.9	46804.2	11.43	26637.8
2012	4.54	56042.6	11.14	29552
2013	4.71	62988.9	10.80	37844.1
2014	4.08	69341.2	9.55	41191

Table no. 4.1 shows the deposit interest rate, lending interest rate, deposit amount and lending amount of NBL from this study, the data 2010/11 are taken as initial year and 2014/15 as the final years. The average interest rate on deposit are 2.95%, 3.9%, 4.54%, 4.71% and 4.08% and average lending rate are 9.16%, 11.43%, 11.14%, 10.80% and 9.55% on fiscal years 2010/11 to 2014/15 respectively. The interest rate on deposit figures are increasing trend and interest rate on lending figures are decreasing trend in five fiscal years. Similarly, it shows the total deposit amount figures are 42129.9, 46804.2, 56042.6, 62988.9 and 69341.2 million as increasing trend and total lending amount figures are 25074.2, 26637.8, 29552, 37844.1 and 41191 million as decreasing trend in five FYs. We can show above data in figure as follows:

Figure No. 4.1

Deposit Rates and Deposit Amounts of NBL

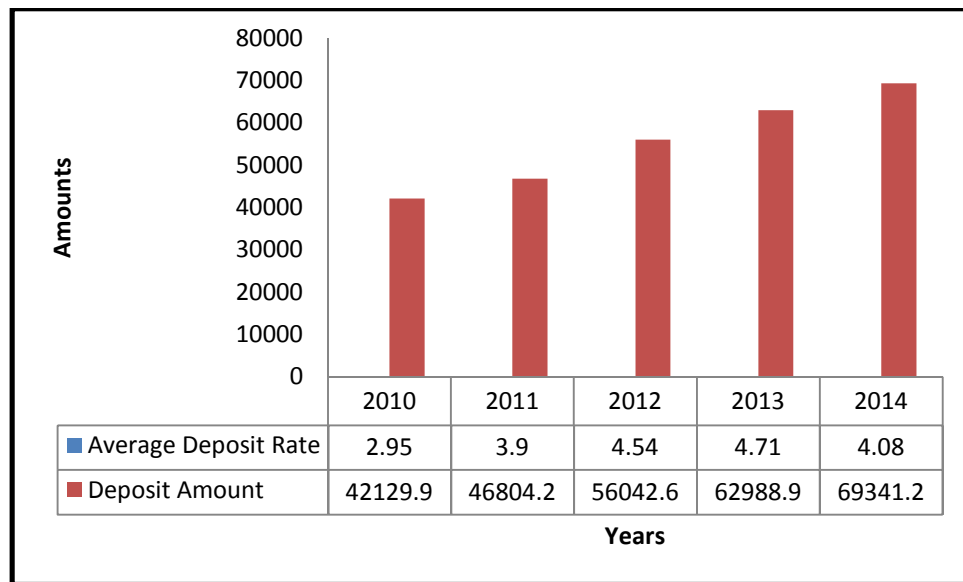


Figure No. 4.2

Lending Rates and Lending Amounts of NBL

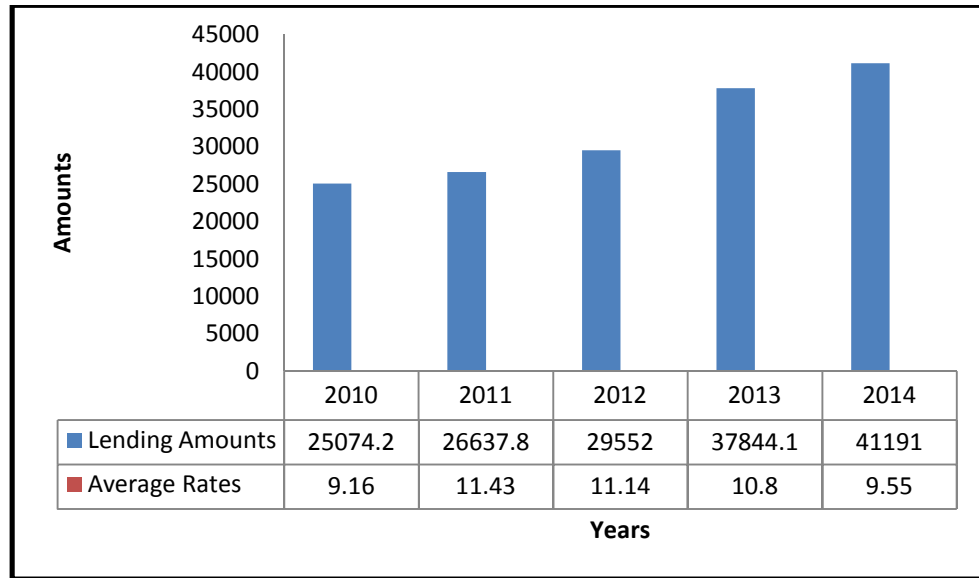


Figure no. 4.1 and 4.2 shows the average interest rate on deposit and deposit amount and average interest rate on lending and lending amount in five fiscal years respectively. Here, the interest rate on deposit are increasing 2.95 to 4.08 percent, and deposit amount also increasing trend in fiscal years 2010/11 to 2014/15. Also, the interest rate on lending are decreasing 11.43 to 9.55 percent, and lending amount also increasing trend in fiscal years 2010/11 to 2014/15.

4.2.1.2 NABIL Bank Limited

The average interest rates and amounts on deposit & lending are provided in different fiscal years of NABIL Bank Limited as given below:

Table No. 4.2

Deposit and Lending Rates & Amounts of NABIL Bank Ltd.

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	3.7	46334.8	10.41	32902.8
2011	4.2	49691.4	11.95	38765.6
2012	6.1	55023.7	12.66	42731.7

2013	6.42	63611.3	11.23	47522.9
2014	4	75384.5	10.32	55829.6

Table no. 4.2 shows the deposit interest rate, lending interest rate, deposit amount and lending amount of NABIL Bank Limited from this study, the data 2010/11 are taken as initial year and 2014/15 as the final years. The average interest rate on deposit are 3.7%, 4.2%, 6.1%, 6.42% and 4% and average lending rate are 10.41%, 11.95%, 12.66%, 11.23% and 10.31% for fiscal years 2010.11 to 2014/15 respectively. The interest rate on deposit figures are increasing trend and interest rate on lending figures are decreasing trend in five fiscal years. Similarly, it shows the total deposit amount figures are 46334.8 to 75384.5 million as increasing trend and total lending amount figures are 32902.8 to 55829.6 million as increasing trend in five FYs. We can show above data in figure as follows:

Figure No. 4.3

Deposit Amounts and Rates of NABIL Bank Ltd.

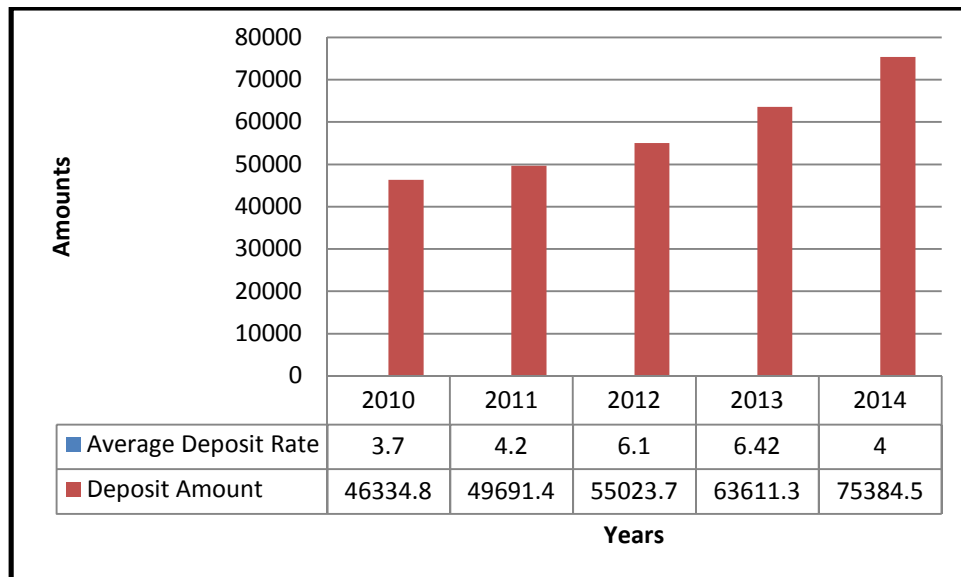


Figure No. 4.4

Lending Amounts and Rates of NABIL Bank Ltd.

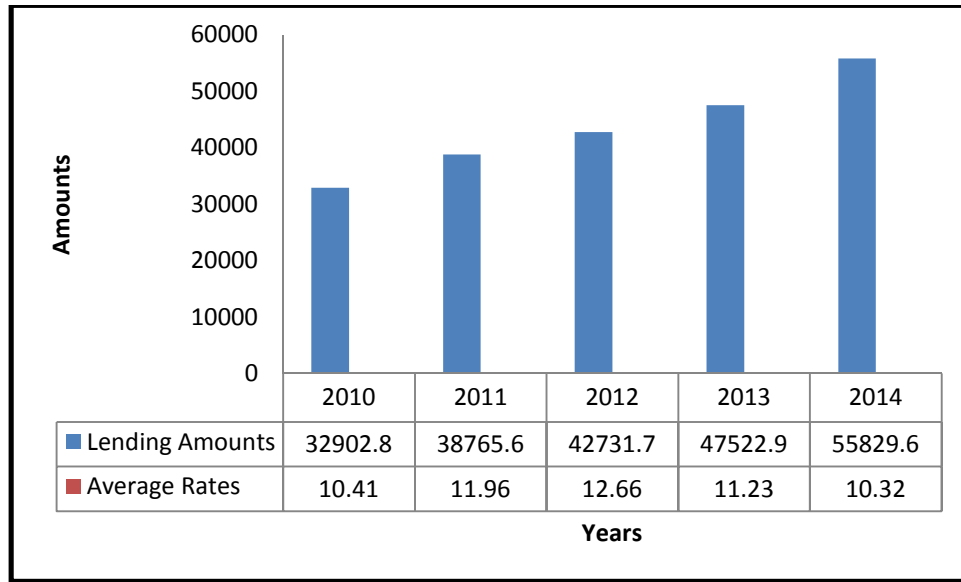


Figure no. 4.3 and 4.4 shows the average interest rate on deposit and deposit amount and average interest rate on lending and lending amount in five fiscal years respectively. Here, the interest rate on deposit are increasing 3.7 to 4 percent, and deposit amount also increasing trend in fiscal years 2010/11 to 2014/15. Also, the interest rate on lending are decreasing 10.41 to 10.31 percent, and lending amount also increasing trend in fiscal years 2010/11 to 2014/15.

4.2.1.3 NIC ASIA Bank Limited

The average interest rates and amounts on deposit & lending are provided in different fiscal years of NIC ASIA Bank Limited as given below:

Table No. 4.3

Deposit & Lending Rates/Amounts of NIC ASIA Bank Ltd.

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	4	15968.9	10.23	12906.1
2011	4.25	18394.4	12.46	15149.3
2012	4.92	22111.8	12.73	17460.2
2013	4.83	39911.9	11.77	32240.9
2014	4.5	44982.8	10.18	37300.7

Table no. 4.3 shows the deposit interest rate, lending interest rate, deposit amount and lending amount of NIC ASIA Bank Limited from this study, the data 2010/11 are taken as initial year and 2014/15 as the final years. The average interest rate on deposit are 4%, 4.25%, 4.92%, 4.83% and 4.5% and average lending rate are 10.23%, 12.46%, 12.73%, 11.77% and 10.18% for fiscal years 2010/11 to 2014/15 respectively. The interest rate on deposit figures are increasing trend and interest rate on lending figures are decreasing trend in five fiscal years. Similarly, it shows the total deposit amount figures are 15968.9 to 44942.8 million as increasing trend and total lending amount figures are 12906.1 to 37300.7 million as increasing trend in five FYs. We can show above data in figure as follows:

Figure No. 4.5

Deposit Rates & Amounts of NIC ASIA Bank Ltd.

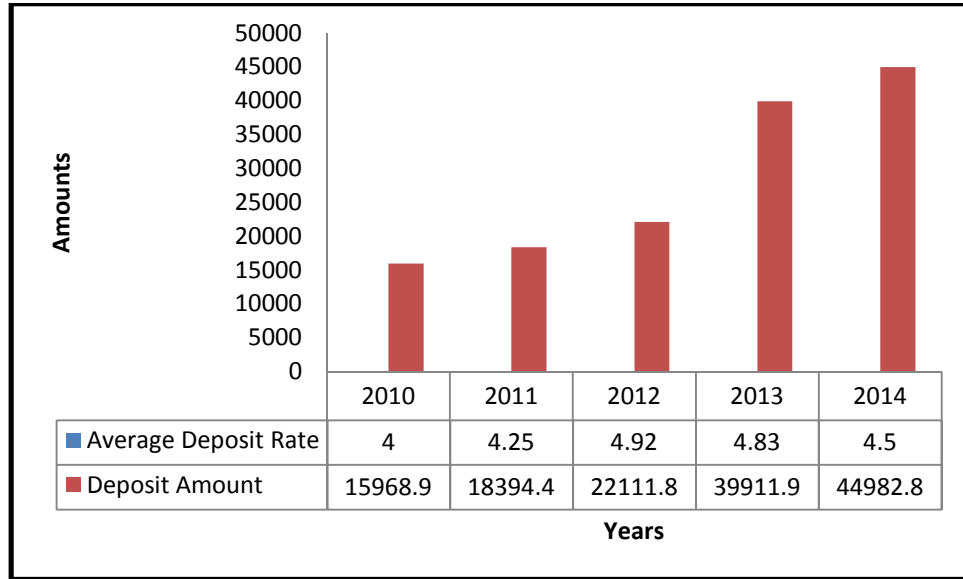


Figure No. 4.6

Lending Rates & Amounts of NIC ASIA Bank Ltd.

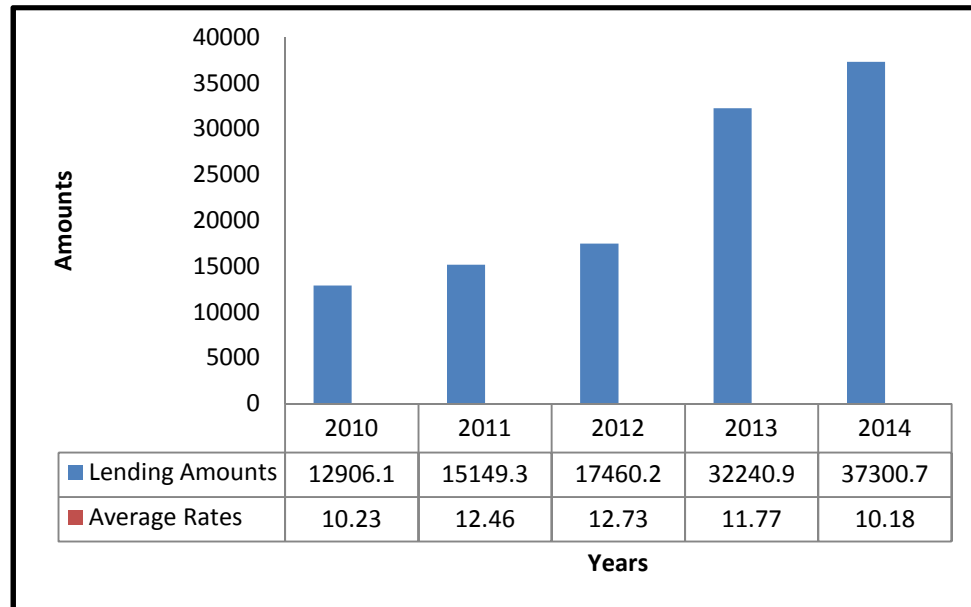


Figure no. 4.5 and 4.5 shows the average interest rate on deposit and deposit amount and average interest rate on lending and lending amount in five fiscal years respectively.

Here, the interest rate on deposit are increasing 4 to 4.5 percent, and deposit amount also increasing trend in fiscal years 2010/11 to 2014/15. Also, the interest rate on lending are decreasing 10.23 to 10.18 percent, and lending amount also increasing trend in fiscal years 2010/11 to 2014/15.

4.2.1.4 NCC Bank Limited

The average interest rates and amounts on deposit & lending are provided in different fiscal years of NCC Bank Limited as given below:

Table No. 4.4
Deposit & Lending Rates/Amounts of NCC Bank Limited

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	5.4	10824.7	11.32	8373.4
2011	4.7	10951.3	12.36	9217.1
2012	5.08	16485.4	12	12886.1
2013	5.13	21650.8	12.60	15919.5
2014	5.88	22256.9	10.86	17845.6

Table no. 4.4 shows the deposit interest rate, lending interest rate, deposit amount and lending amount of NCC Bank Ltd. from this study, the data 2010/11 are taken as initial year and 2014/15 as the final years. The average interest rate on deposit are 5.4%, 4.7%, 5.08%, 5.13% and 5.88% and average lending rate are 11.32%, 12.36%, 12%, 12.60% and 10.86% for fiscal years 2010/11 to 2014/15 respectively. The interest rate on deposit figures are increasing trend and interest rate on lending figures are decreasing trend in five fiscal years. Similarly, it shows the total deposit amount figures are 10824.7 to 22256.9 million as increasing trend and total lending amount figures are 8373.4 to

17845.6 million as increasing trend in five FYs. We can show above data in figure as follows:

Figure No. 4.7
Deposit Rates & Amounts of NCC Bank Ltd.

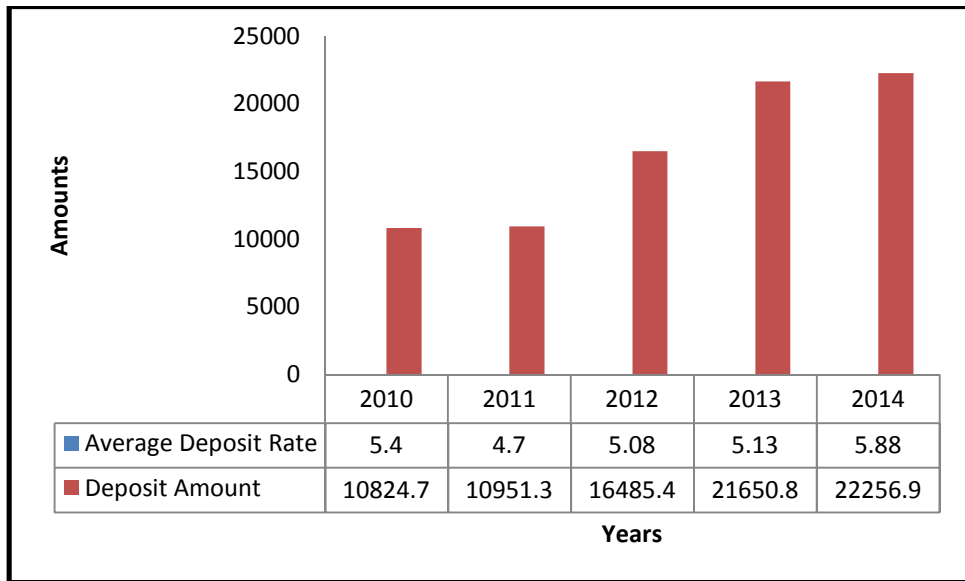


Figure No. 4.8

Lending Rates & Amounts of NCC Bank Ltd.

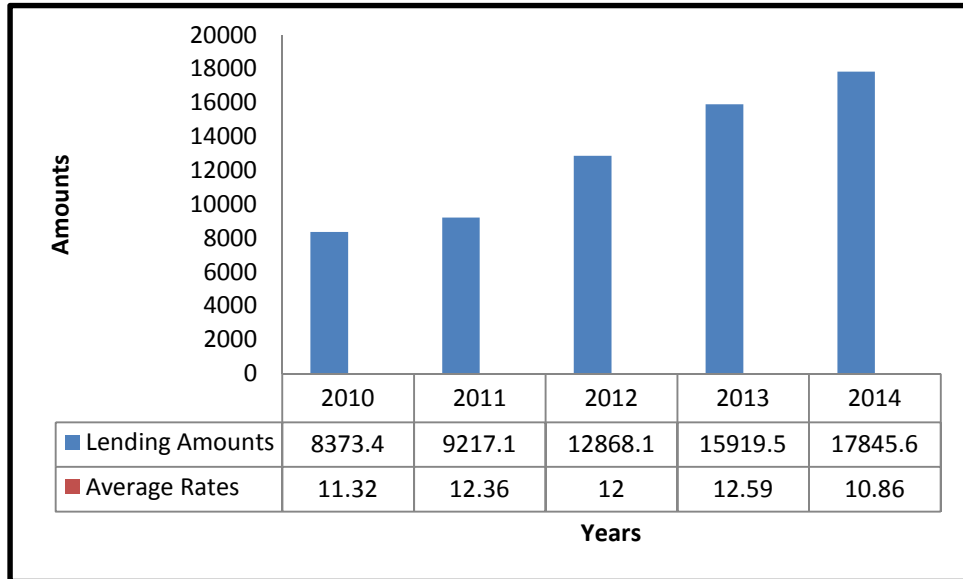


Figure no. 4.7 and 4.8 shows the average interest rate on deposit and deposit amount and average interest rate on lending and lending amount in five fiscal years respectively. Here, the interest rate on deposit are increasing 5.4 to 5.88 percent, and deposit amount also increasing trend in fiscal years 2010/11 to 2014/15. Also, the interest rate on lending are decreasing 11.32 to 10.86 percent, and lending amount also increasing trend in fiscal years 2010/11 to 2014/15.

4.2.1.5 Everest Bank Limited

The average interest rates and amounts on deposit & lending are provided in different fiscal years of Everest Bank Limited as given below:

Table No. 4.5
Deposit & Lending Rates/Amounts of EBL

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	4.2	36932.3	11.95	28129.7
2011	4.67	41127.9	12.23	31354.7
2012	5.71	50006.1	11.68	36376
2013	4.92	62108.1	11.18	47955.9
2014	4.46	72208.3	10.18	52203.5

Table no. 4.5 shows the deposit interest rate, lending interest rate, deposit amount and lending amount of Everest Bank Limited from this study, the data 2010/11 are taken as initial year and 2014/15 as the final years. The average interest rate on deposit are 4.2%, 4.67%, 5.71%, 4.925 and 4.46% and average lending rate are 11.95%, 12.23%, 11.68%, 11.18 and 10.18% for fiscal years 2010/11 to 2014/15 respectively. The interest rate on deposit figures are increasing trend and interest rate on lending figures are decreasing trend in five fiscal years. Similarly, it shows the total deposit amount figures are 36932.3 to 72208.3 million as increasing trend and total lending amount figures are 28129.7 to 52203.5 million as increasing trend in five FYs. We can show above data in figure as follows:

Figure No. 4.9
Deposit Rates & Amounts of EBL

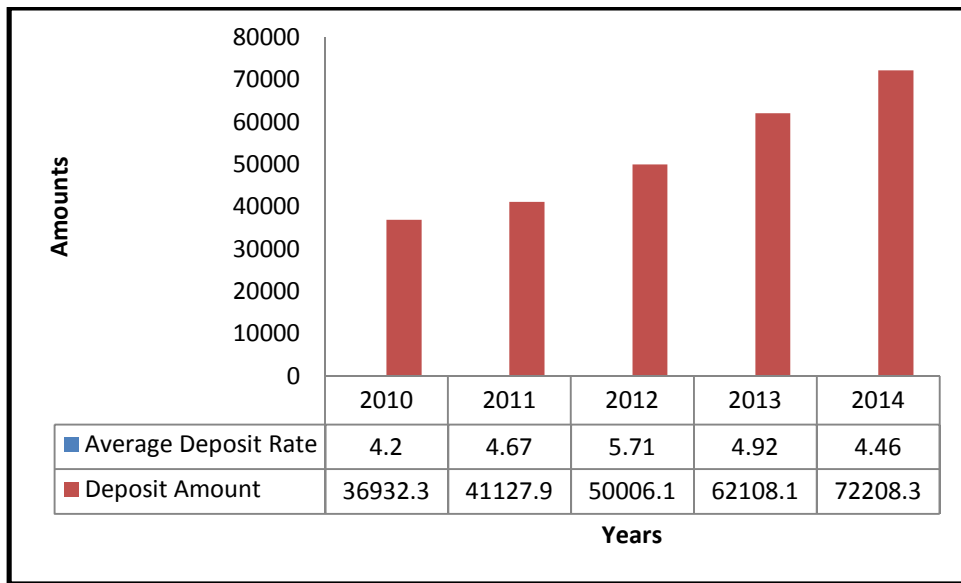


Figure No. 4.10
Lending Rates & Amounts of EBL

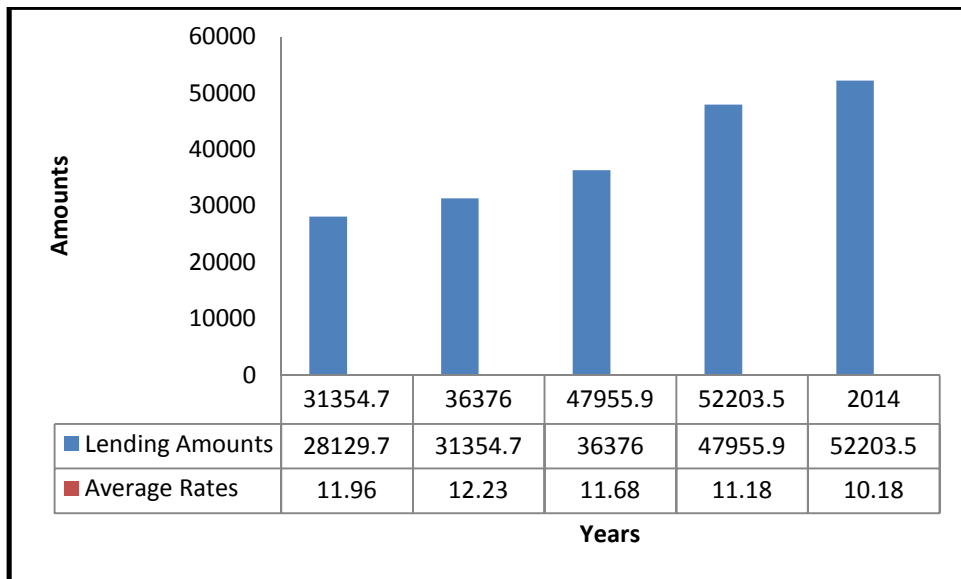


Figure no. 4.9 and 4.10 shows the average interest rate on deposit and deposit amount and average interest rate on lending and lending amount in five fiscal years respectively.

Here, the interest rate on deposit are increasing 2.02 to 4.46 percent, and deposit amount also increasing trend in fiscal years 2010/11 to 2014/15. Also, the interest rate on lending are decreasing 11.96 to 10.18 percent, and lending amount also increasing trend in fiscal years 2010/11 to 2014/15.

4.2.2 Mean, S.D. and C.V. on Interest Rate of Sample Banks

The average interest rate, standard deviation and coefficient of variance are provided in different fiscal years of the sample banks as given below:

Table No. 4.6
Mean, S.D. and C.V. on Interest Rate of Sample Banks

Banks	Deposit Rate			Lending Rate		
	Mean(μ)	S.D.(σ)	C.V.	Mean(μ)	S.D.(σ)	C.V.
NBL	4.036	0.6910	17.12	10.42	1.0040	1.0080
NABIL	4.884	1.2727	26.10	11.31	1.0047	1.0042
NIC ASIA	4.5	0.3864	8.59	11.47	1.2089	1.4614
NCC	5.238	0.4354	8.31	11.83	0.7226	0.5222
EBL	4.792	0.5772	12.05	11.44	0.8051	0.6482

Above table no. 4.6 shows the mean, standard deviation and coefficient of variance on deposit and lending interest rate of sample banks. The average interest rates are 4.036, 4.889, 4.5, 5.2 and 4.8 percent and the standard deviations are 0.69, 1.2, 0.38, 0.43 and 0.577 on deposit for the NBL, NABIL, NIC ASIA, NCC and EBL respectively. Similarly, the average interest rates are 10.42, 11.31, 11.47, 11.83 and 11.44 percent and the standard deviations are 1.004, 1, 1.21, 0.73 and 0.81 on lending for the NBL, NABIL, NIC ASIA, NCC and EBL respectively. The mean figures also show the increasing tendency in interest rate on deposit and decreasing tendency in interest rate on lending rate. The standard deviation and coefficient of covariance shows the positive trend on interest rates. Where, the highest mean rate is 5.238 percent on deposit and 11.83 percent on lending of NCC bank and the lowest C.V. is 8.31 on deposit and 0.522 on lending rate of NCC bank. Here, the mean and standard deviation is increasing trends on deposit and decreasing trend on lending of sample banks.

4.2.3 Correlation Analysis

Correlation analysis is used as a standard tool to ascertain the association between variables. The variable selected for this study are deposit rate, lending rate, deposit amount and lending amount. A study has been made to find the relationship between all of these variables. Correlation table has been presented below showing the correlations between each variable.

4.2.3.1 Correlation between Deposit Rate and Deposit Amount

The following table shows the correlation coefficient, coefficient of determination, t-value and results which is significance or not of all sample banks.

Table No. 4.7
Correlation between Deposit Rate and Amount

Banks	Correlation(r)	(r ²)	t-test value		Result
			Calculated	tabulated	
NBL	0.6999	0.4899	3.97	2.776	Significance
NABIL	0.1538	0.0246	3.92	2.776	Significance
NIC ASIA	0.4853	0.2355	0.0014	2.776	Insignificance
NCC	0.5344	0.2856	0.0016	2.776	Insignificance
EBL	0.0880	0.0078	4.34	2.776	Significance

In table no. 4.7, the values of correlation are positive of all sample banks. It shows the interest rate on deposit and deposit amount are positively correlated. The correlation of coefficient between the two variables r are 0.6999, 0.1538, 0.4853, 0.5344 and 0.0880 of NBL, NABIL, NIC ASIA, NCC and EBL respectively. The coefficient of determination between the two variables r² are 0.4899, 0.0246, 0.2355, 0.2856 and 0.0078 of NBL, NABIL, NIC ASIA, NCC and EBL respectively, which means the total variation in dependent variable (Deposit) has been explained by independent variable (Interest Rate) to the extent of 48.99%, 2.46%, 23.55%, 28.56% and 0.78% and remaining if the effect of other factor not taken into consideration by the study of all sample banks. While, t-statistics for testing the significance of the correlation between two variables as t-calculated values are 3.97, 3.92, 0.14, 0.16 and 4.34 for NBL, NABIL, NIC ASIA, NCC and EBL banks respectively. Since, if the tabulated value of 5 percent level of

significance for 3 (5-2) degree of freedom are lower than the calculated value, since the null hypothesis is rejected i.e. there is significance relation between two variables or the variables are correlated. If the tabulated value of 5 percent level of significance for 3 (5-2) degree of freedom are higher than the calculated value, since the null hypothesis is accepted i.e. there is insignificance relation between two variables or the variables are uncorrelated.

4.2.3.2 Correlation between Lending Rate and Lending Amount

The following table shows the correlation coefficient, coefficient of determination, t-calculated and tabulated value and results which is significance or not of all sample banks.

Table No. 4.8
Correlation between Lending Rate and Amount

Banks	Correlation(r)	(r ²)	t-test value		Result
			Calculated	Tabulated	
NBL	-0.1505	0.0227	7.87	2.776	Significance
NABIL	-0.2029	0.0412	3.68	2.776	Significance
NIC ASIA	-0.3341	0.1116	0.0016	2.776	Insignificance
NCC	-0.1798	0.0323	0.0005	2.776	Insignificance
EBL	-0.9254	0.8564	3.13	2.776	Significance

In table no. 4.8, the values of correlation are negative of all sample banks. It shows the interest rate on lending and lending amount is negatively correlated. The correlation coefficient between the two variables r are -0.1505, -0.2029, -0.3344, -0.1798 and -0.9254 of NBL, NABIL, NIC ASIA, NCC and EBL respectively. The coefficient of determination between the two variables r² are 0.0227, 0.0412, 0.1116, 0.0323 and 0.8564 of NBL, NABIL, NIC ASIA, NCC and EBL respectively, which means the total variation in dependent variable (lending) has been explained by independent variable (Interest Rate) to the extent of 2.27%, 4.12%, 11.16%, 3.23% and 85.64% and remaining if the effect of other factor not taken into consideration by the study of all sample banks. While, t-statistics for testing the significance of the correlation between two variables as t-calculated values are 7.87, 3.68, 0.16, 0.05 and 3.13 for NBL, NABIL, NIC ASIA, NCC

and EBL banks respectively. Since, if the tabulated value of 5 percent level of significance for 3 (5-2) degree of freedom are lower than the calculated value, since the null hypothesis is rejected i.e. there is significance relation between two variables or the variables are correlated. If the tabulated value of 5 percent level of significance for 3 (5-2) degree of freedom are higher than the calculated value, since the null hypothesis is accepted i.e. there is insignificance relation between two variables or the variables are uncorrelated.

4.2.3.3 Correlation between Deposit Rate and Lending Rate

The following table shows the correlation coefficient, coefficient of determination, t-value and results which is significance or not of all sample banks.

Table No. 4.9
Correlation between Deposit Rate and Lending Rate

Banks	Correlation(r)	(r ²)	t-test value		Result
			Calculated	Tabulated	
NBL	0.6552	0.4293	2.634	2.776	Insignificance
NABIL	0.5887	0.3466	2.072	2.776	Insignificance
NIC ASIA	0.5362	0.2875	1.807	2.776	Insignificance
NCC	-0.8688	0.7548	1.193	2.776	Insignificance
EBL	0.1078	0.0116	3.877	2.776	Significance

In table no. 4.8, the values of correlation are positive of all sample banks. It shows the interest rate on deposit and interest rate on lending are positively/negatively correlated. The correlation coefficient between the two variables r are 0.6552, 0.5887, 0.5362, -0.8688 and 0.1078 of NBL, NABIL, NIC ASIA, NCC and EBL respectively. The coefficient of determination between the two variables r² are 0.4293, 0.3466, 0.2875, 0.7528 and 0.0116 of NBL, NABIL, NIC ASIA, NCC and EBL respectively, which means the total variation in dependent variable has been explained by independent variable to the extent of 42.93%, 34.66%, 28.75%, 75.48% and 1.16% and remaining if the effect of other factor not taken into consideration by the study of all sample banks. While, t-statistics for testing the significance of the correlation between two variables as t-calculated values are 2.64, 2.10, 1.81, 1.19 and 3.88 for NBL, NABIL, NIC ASIA, NCC

and EBL banks respectively. Since, if the tabulated value of 5 percent level of significance for 3 (5-2) degree of freedom are lower than the calculated value, since the null hypothesis is rejected i.e. there is significance relation between two variables or the variables are correlated. If the tabulated value of 5 percent level of significance for 3 (5-2) degree of freedom are higher than the calculated value, since the null hypothesis is accepted i.e. there is insignificance relation between two variables or the variables are uncorrelated.

4.2.4 Financial Analysis of Different Ratios

4.2.4.1 Analysis of Total Lending to Total Deposit Ratios:

The following table below clearly states the lending to deposit ratio of the sample CBs in Nepal. The ratio has been shown from the fiscal year 2010/11 to 2014/15 as table no. 4.11 as below:

Table No. 4.10

Analysis of Total Lending to Total Deposit Ratios

Banks/Years	2010	2011	2012	2013	2014	Average
NBL	59.52	56.91	52.73	60.08	59.40	57.73
NABIL	71.01	78.01	77.66	74.71	74.06	75.09
NIC ASIA	80.82	82.36	78.96	80.78	82.92	81.17
NCC	77.35	84.16	78.06	73.53	80.18	78.66
EBL	70.44	76.67	72.74	77.21	77.21	74.85

From the table 4.10, it is clear that the average lending to deposit ratio of NBL, NABIL, NIC ASIA, NCC and EBL are 57.73%, 75.09%, 81.17%, 78.66% and 74.85% respectively in average. The NIC ASIA bank has the highest ratio and NBL bank has the lowest ratio. It means NIC ASIA bank shows good financial position than other sample banks. The lending to deposit ratio of all sample banks are in increasing trend. This indicates that all the sample banks under the study are able to mobilize its fund to the maximum extent.

4.2.4.2 Analysis of Interest Rate Spread:

The following table below clearly states the spread of interest rates in all sample CBs in Nepal. The spread has been shown from the fiscal year 2010/11 to 2014/15 as table no. 4.11 as below:

Table No. 4.11
Analysis of Interest Rate Spread

Banks/Years	2010	2011	2012	2013	2014	Average
NBL	5.76	4.53	6.59	5.09	5.47	5.49
NABIL	4.71	4.76	5.56	5.81	4.32	4.98
NIC ASIA	6.23	5.21	5.81	6.95	5.68	5.98
NCC	5.92	6.67	6.2	5.47	4.99	5.85
EBL	4.37	4.23	5.69	5.67	5.72	5.13

From the table 4.11, it is clear that the interest spread rate of NBL, NABIL, NIC ASIA, NCC and EBL 5.49%, 4.98%, 5.98%, 5.85% and 5.13% are respectively in average. The interest spread rate as per NRB directives requirement i.e. 5%, so NRB is not successful to maintain spread rate to 5%.

4.3 Presentation and Analysis of Primary Data

The descriptive analysis of total respondent taken under study is described in detail in this section. Since this survey is mainly focus on Nepalese CBs, the respondents include both male and female of the various occupation groups. This section deals with the demographic analysis and interpretation of primary data collected through questionnaires. Out of the 150 questionnaires send to the potential respondents only 145 respondents gave their response to the questionnaire. Hence, the response rate is 96.67 %. When collecting data, most of the questionnaires were handed face to face and returned after around 15-30 minutes. As a result of this, the researcher tried to make the questions few and easy to read. The primary data provide more accurate and uniform information in research. In this study, the primary data are collected from the direct personal information through correspondent's questionnaires collection method with bankers and managers, depositors and lenders, lectures and professors and students, whose have a good knowledge upon the relationship of interest rate.

4.3.1 Suitability of interest rate determining process in Nepalese CBs:

On the questionnaires collection, the first questionnaire is setup to get the result on suitable of interest rate determining process in Nepalese CBs. The following results are obtained by research:

Table No. 4.12

Suitable of Interest Rate Determining Process in CBs

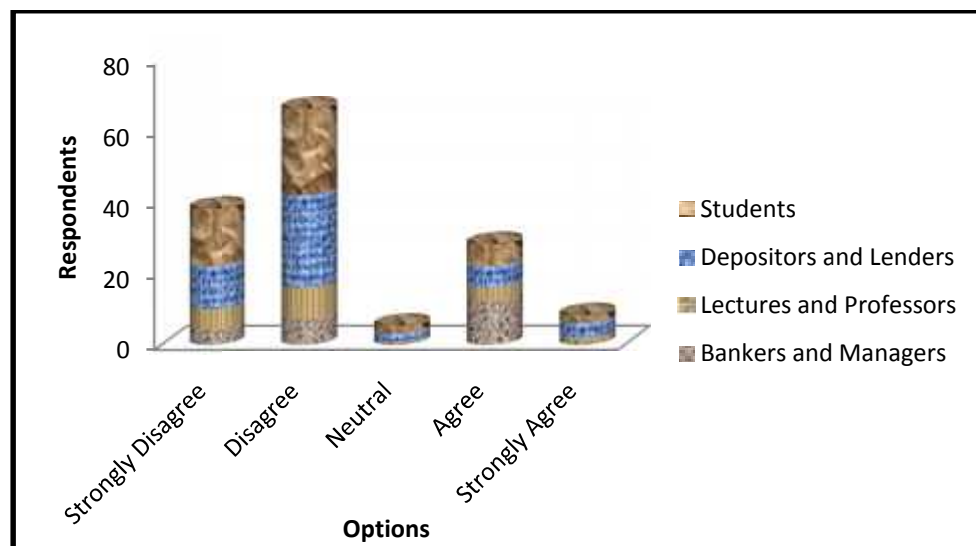
Options \ Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Bankers and Managers	4	7	1	12	1	25
Lectures and Professors	6	9	0	4	1	20
Depositors and Lenders	12	26	2	6	4	50
Students	16	24	2	6	2	50
Frequency	38	66	5	28	8	145
Percentage (%)	26.21%	45.52%	3.45%	19.31%	5.52%	100%

Source: Field Study, 2015

The table No. 4.12 shows the respondents' viewpoint on suitability of interest rate determining process in Nepalese CBs. The total respondents viewpoints on 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 38 numbers, 66 numbers, 5 numbers, 28 numbers and 8 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.11

Suitable of Interest Rate determining Process in CBs



The figure no. 4.11 represents the suitability of interest rate determining process in Nepalese CBs. The respondent's viewpoints on 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 26.21 percent, 45.52 percent, 3.45 percent, 19.31 percents and 5.52 percents respectively. The total respondent's viewpoint in 'Disagree' result is greater than other results.

4.3.2 Relationship of Interest Rate with Deposit Amount of Nepalese CBs:

The second questionnaire is setup to know the outcomes the relationship of interest rate with deposit amount of Nepalese CBs. The following results are obtained by research.

Table No. 4.13
Relationship of Interest Rate with Deposit of CBs

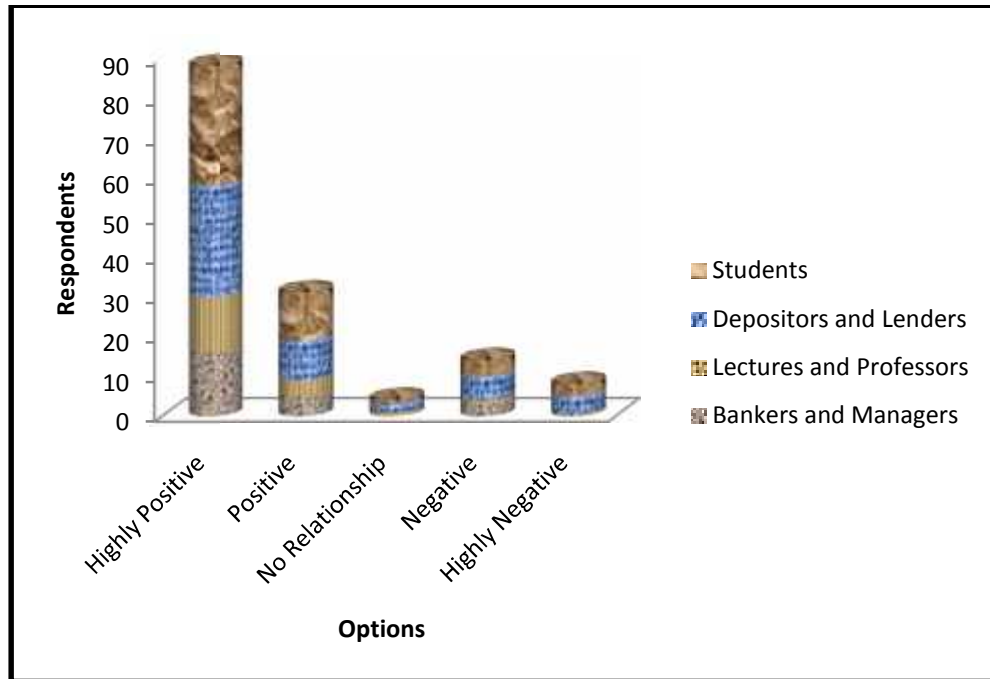
Options \ Respondents	Highly Positive	Positive	No Relationship	Negative	Highly Negative	Total
Bankers and Managers	16	5	0	3	1	25
Lectures and Professors	14	4	1	1	0	20
Depositors and Lenders	28	10	2	6	4	50
Students	30	12	1	4	3	50
Frequency	88	31	4	14	8	145
Percentage (%)	60.69%	21.38%	2.76%	9.66%	5.52%	100%

Source: Field Study, 2015

The table No. 4.13 shows the respondents' viewpoint on the relationship of interest rate with deposit amount of Nepalese CBs. The total respondent's viewpoints on 'Highly Positive', 'Positive', 'No Relationship', 'Negative' and 'Highly Negative' are 88 numbers, 31 numbers, 4 numbers, 14 numbers and 8 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.12

Relationship of Interest Rate with Deposit of CBs



The figure no. 4.12 represents the relationship of interest rate with deposit of Nepalese CBs. The respondent's viewpoints on 'Highly Positive', 'Positive', 'No Relationship', 'Negative' and 'Highly Negative' are 60.69 percent, 21.38 percent, 2.76 percent, 9.66 percent and 5.52 percent respectively. The total respondent's viewpoint in 'Highly Positive' result is greater than other results.

4.3.3 Relationship of Interest Rate with Lending of CBs:

The third questionnaire is setup to know the outcomes on the relationship of interest rate with lending amount of Nepalese CBs. The following results are obtained by research.

Table No. 4.14

Relationship of Interest Rate with Lending of CBs

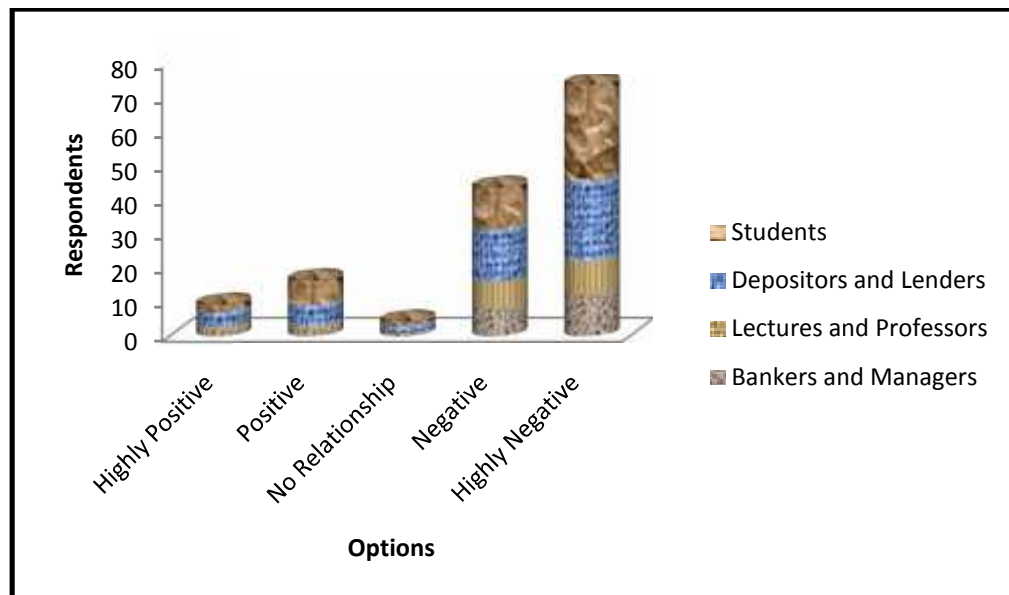
Options \ Respondents	Highly Positive	Positive	No Relationship	Negative	Highly Negative	Total
Bankers and Managers	2	2	1	8	12	25
Lectures and Professors	1	1	0	8	10	20
Depositors and Lenders	4	6	2	15	23	50
Students	2	7	1	12	28	50
Frequency	9	16	4	43	73	145
Percentage (%)	6.21%	11.03%	2.76%	29.66%	50.34%	100%

Source: Field Study, 2015

The table No. 4.14 shows the respondents' viewpoint on the relationship of interest rate with lending amount in Nepalese CBs. The total respondent's viewpoints on 'Highly Positive', 'Positive', 'No Relationship', 'Negative' and 'Highly Negative' are 6 numbers, 16 numbers, 4 numbers, 43 numbers and 73 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.13

Relationship of Interest Rate with Lending of CBs



The figure no. 4.13 represents the relationship of interest rate with lending amount in Nepalese CBs. The respondent's viewpoints on 'Highly Positive', 'Positive' 'No Relationship', 'Negative' and 'Highly Negative' are 6.21 percent, 11.03 percent, 2.76 percent, 29.66 percent and 50.34 percent respectively. The total respondent's viewpoint in 'Highly Negative' result is greater than other results.

4.3.4 Interest Rate plays a vital role in success of CBs:

The fourth questionnaire is related to the interest rate plays a vital role in success of Nepalese CBs. The following results are obtained by research,

Table No. 4.15
Interest Rate Plays a vital role in success of CBs

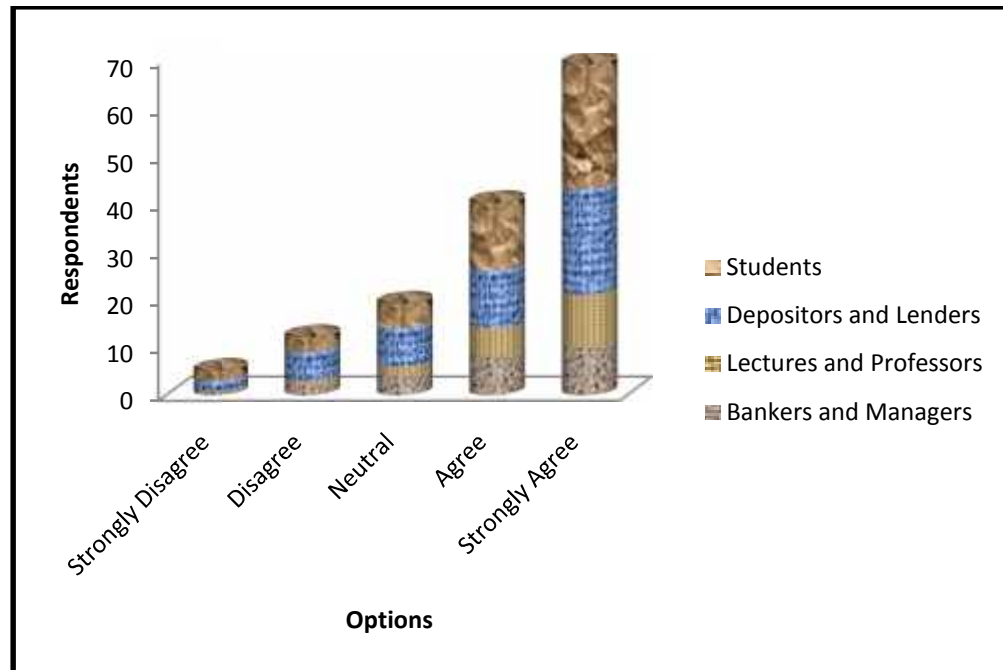
Options Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Bankers and Managers	1	2	4	8	10	25
Lectures and Professors	0	1	2	6	11	20
Depositors and Lenders	2	6	8	12	22	50
Students	2	3	5	14	26	50
Frequency	5	12	19	40	69	145
Percentage (%)	3.45%	8.28%	13.10%	27.59%	47.59%	100%

Source: Field Study, 2015

The table No. 4.15 shows the respondents' viewpoint on the interest rate plays a vital role in success of Nepalese CBs. The total respondents viewpoints on 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 5 numbers, 12 numbers, 19 numbers, 40 numbers and 69 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.14

Interest Rate plays a vital role in success of CBs



The figure no. 4.14 represents the interest rate plays a vital role in success of Nepalese CBs. The respondent's viewpoints on 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree', and 'Strongly Agree' are 3.45 percent, 8.28 percent, 13.10 percent, 27.59 percent and 47.59 percent respectively. The viewpoint of total respondent's in 'Strongly Agree' result is greater than other results.

4.3.5 Interest Rate affects to Deposit and Lending of Nepalese CBs:

The fifth questionnaire is related to the interest rate affects to deposit and lending amount of Nepalese CBs than other factors. The following results are obtained by research.

Table No. 4.16

Interest Rate affects to Deposit and Lending of CBs

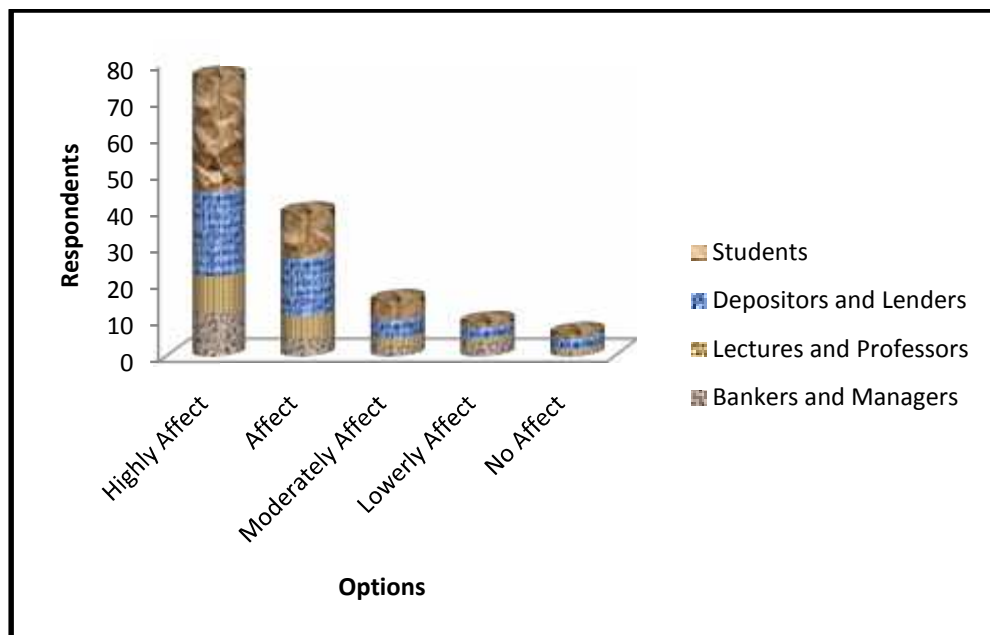
Options \ Respondents	Highly Affect	Affect	Moderately Affect	Lowerly Affect	No Affect	Total
Bankers and Managers	12	5	3	4	1	25
Lectures and Professors	10	6	2	1	1	20
Depositors and Lenders	23	16	5	3	3	50
Students	31	12	5	1	1	50
Frequency	76	39	15	9	6	145
Percentage (%)	52.41%	26.90%	10.34%	6.21%	4.14%	100%

Source: Field Study, 2015

The table No. 4.16 shows the respondents' viewpoint on the interest rate affects to deposit and lending of Nepalese CBs. The total respondent's viewpoints on 'Highly Affect', 'Affect', 'Moderately Affect', 'Lowerly Affect' and 'No Affect' are 76 numbers, 39 numbers, 15 numbers, 9 numbers and 6 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.15

Interest Rate affects to Deposit and Lending of CBs



The figure no. 4.15 represents the interest rate affects to deposit and lending rate of Nepalese CBs. The respondent's viewpoints on 'Highly Affect', 'Affect', 'Moderately Affect', 'Lowerly Affect' and 'No Affect' are 52.41 percent, 26.90 percent, 10.34 percent, 6.21 percent and 4.14 percent respectively. The respondent's viewpoints in 'Highly Affects' result is greater than other results.

4.3.6 Interest Rate of CBs impacts the Inflation rate of Nepal:

The sixth questionnaire is related to the interest rate of CBs impacts the inflation rate of Nepal. The following results are obtained by research,

Table No. 4.17
Interest Rate of CBs impacts the Inflation Rate in Nepal

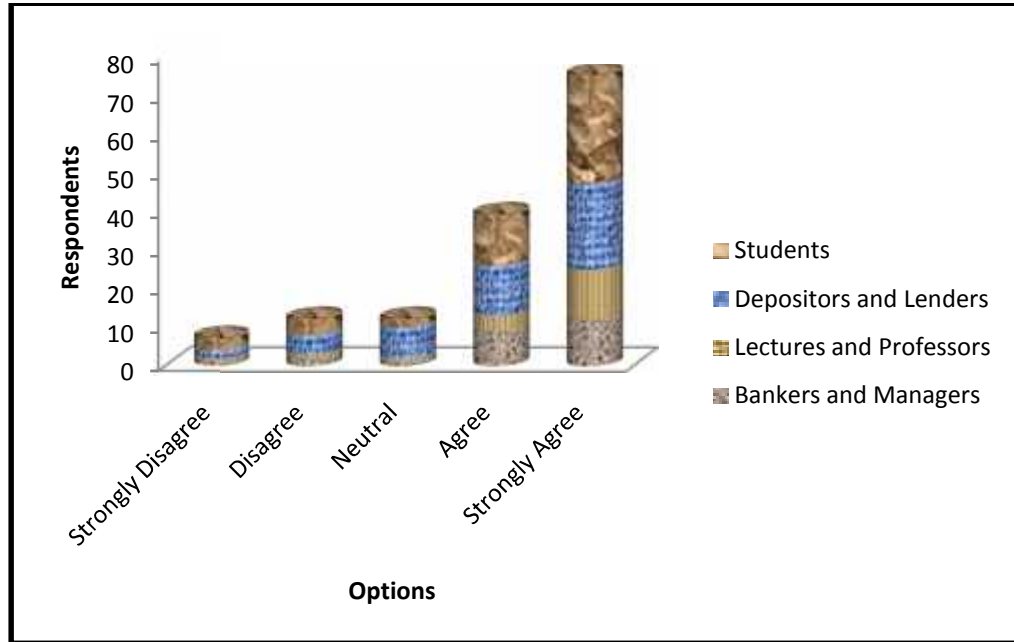
Options	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Bankers and Managers	1	2	1	9	12	25
Lectures and Professors	1	1	1	4	13	20
Depositors and Lenders	2	5	8	13	22	50
Students	3	4	2	13	28	50
Frequency	7	12	12	39	75	145
Percentage (%)	4.83%	8.28%	8.28%	26.90%	51.72%	100%

Source: Field Study, 2015

The table No. 4.17 shows the respondents' viewpoint on the interest rate of CBs impacts the inflation rate of Nepal. The total respondents viewpoints on 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 7 numbers, 12 numbers, 12 numbers, 39 numbers and 75 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.16

Interest Rate of CBs impacts the Inflation Rate in Nepal



The figure no. 4.16 represents the interest rate of CBs impacts the inflation rate of Nepal. The respondent viewpoint on ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’, and ‘Strongly Agree’ are 4.83 percent, 8.28 percent, 8.28 percent, 26.90 percent and 51.72 percent respectively. The viewpoint of total respondent’s in ‘Strongly Agree’ result is greater than other results.

4.3.7 Relationship between Deposit Rate and Lending Rate of CBs:

The seventh questionnaire is setup to know the outcomes on the relationship of interest rate on deposit with interest rate on lending of Nepalese CBs. The following results are obtained by research.

Table No. 4.18

Relationship between Deposit Rate and Lending Rate of CBs

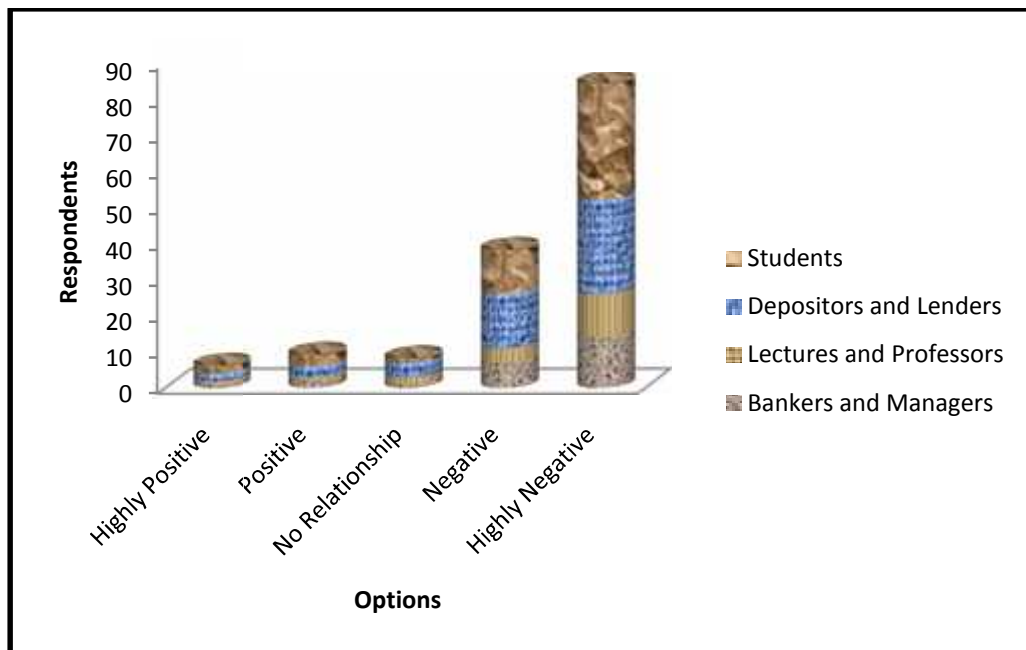
Options Respondents	Highly Positive	Positive	No Relationship	Negative	Highly Negative	Total
Bankers and Managers	1	2	1	7	14	25
Lectures and Professors	1	1	2	4	12	20
Depositors and Lenders	2	3	4	15	26	50
Students	2	3	1	12	32	50
Frequency	6	9	8	38	84	145
Percentage (%)	4.14%	6.21%	5.52%	26.21%	57.93%	100%

Source: Field Study, 2015

The table No. 4.18 shows the respondents' viewpoint on the relationship of interest rate on deposit with interest rate on lending in Nepalese CBs. The total respondents viewpoints on 'Highly Positive', 'Positive', 'No Relationship', 'Negative', and 'Highly Negative' are 6 numbers, 9 numbers, 8 numbers, 38 numbers and 84 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.17

Relationship between Deposit Rate and Lending Rate of CBs



The figure no. 4.17 represents the relationship of interest rate on deposit with interest rate on lending in Nepalese CBs. The respondent's viewpoints on 'Highly Positive', 'Positive', 'No Relationship', 'Negative' and 'Highly Negative' are 4.14 percent, 6.21 percent, 5.52 percent, 26.21 percent and 57.93 percent respectively. The total respondent's viewpoint in 'Highly Negative' result is greater than other results.

4.3.8 Change in Interest Rate changes the Net Profit of CBs:

The eighth questionnaire is related to change in interest rate changes the net profit of Nepalese CBs. The following results are obtained by research,

Table No. 4.19
Change in Interest Rate changes the Net Profit of CBs

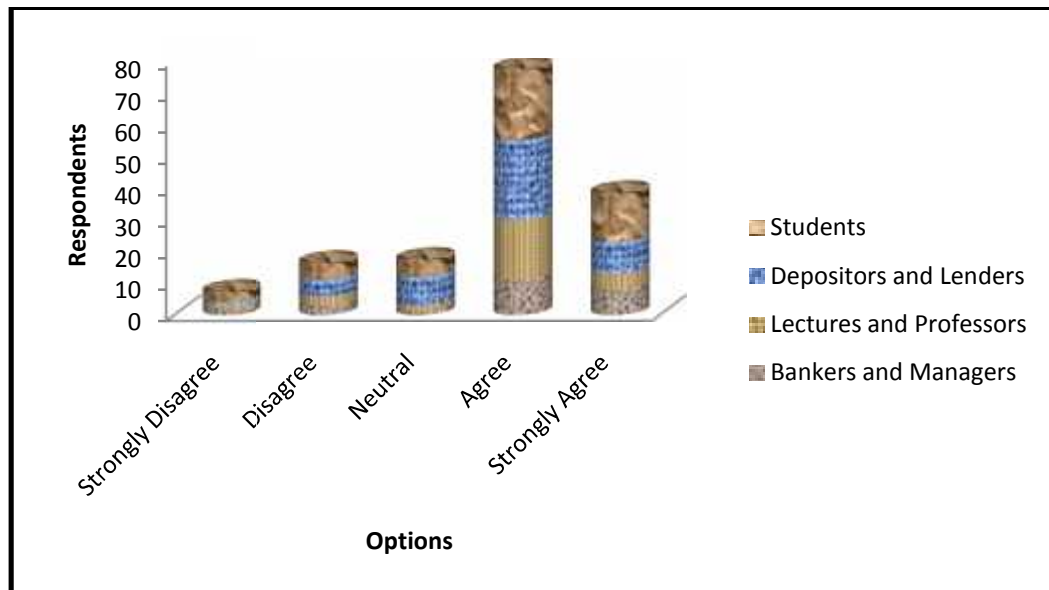
Options	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Bankers and Managers	2	3	1	11	8	25
Lectures and Professors	1	3	2	19	5	20
Depositors and Lenders	1	5	9	25	10	50
Students	3	5	5	22	15	50
Frequency	7	16	17	67	38	145
Percentage (%)	4.83%	11.03%	11.72%	46.21%	26.21%	100%

Source: Field Study, 2015

The table No. 4.19 shows the respondents' viewpoint on change in interest rate changes the net profit of Nepalese CBs. The total respondents viewpoints on 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree' and 'Strongly Agree' are 7 numbers, 16 numbers, 17 numbers, 67 numbers and 38 numbers respectively. The percentages of respondents are shown in following figure.

Figure No. 4.18

Change in Interest Rate changes the Net Profit of CBs



The figure no. 4.18 represents the change in interest rate changes the net profit of Nepalese CBs. The respondent viewpoint on ‘Strongly Disagree’, ‘Disagree’, ‘Neutral’, ‘Agree’, and ‘Strongly Agree’ are 4.83 percent, 11.03 percent, 11.72 percent, 46.21 percent and 26.21 percent respectively. The viewpoint of total respondent’s in ‘Agree’ result is greater than other results.

4.4 Major Findings

On the basis of entire presentation and analysis of relevant data of sample banks using various analytical tools, the major findings have been followed:

4.4.1 Major Finding from Secondary Data

This study carried out to identify the practically applicability of some of the theories. With these motives, this study mainly focuses on three objectives. From the study, the following three major findings are obtained.

1. According to the substitution theory, there should be strong relationship between the deposit amount and interest rate. The research gets the following result:

) In the case of NBL, the correlation between interest rate on deposit and deposit amount is $r = 0.6999$. It has moderate degree positive correlation, which support the substitution theory. For supporting the correlation, the t-test for significance is $t = 3.97$ calculated.

) In the case of NABIL, the correlation between interest rate on deposit and deposit amount is $r = 0.1538$. It has low degree positive correlation, which support the substitution theory. For supporting the correlation, the t-test for significance is $t = 3.92$ calculated.

) In the case of NIC ASIA, the correlation between interest rate on deposit and deposit amount is $r = 0.4853$. It has moderate positive correlation, which support the substitution theory. For supporting the correlation, the t-test for insignificance is $t = 0.0016$ calculated.

) In the case of NCC, the correlation between interest rate on deposit and deposit amount is $r = 0.5344$. It has moderate positive correlation, which support the substitution theory. For supporting the correlation, the t-test for insignificance is $t = 0.0016$ calculated.

) In the case of EBL, the correlation between interest rate on deposit and deposit amount is $r = 0.0880$. It has low degree positive correlation, which support the substitution theory. For supporting the correlation, the t-test for significance is $t = 4.32$ calculated.

Concluding from above, the analysis of substitution effect for the deposit rate and amount shows that substitution effect does exist for all sample banks. This means that, the people are deposit more money if the interest rate on deposit is raise every year and if interest rate reduced, people are also reduce in deposit amount.

2. According to loanable theory, lending rate and lending amount should have inverse relationship. This research gets the following results:

-) In the case of NBL, the correlation between interest rate on lending and lending amount is $r = -0.1505$. It has negative correlation, which support the inverse relationship on both variables. For supporting the correlation, the t-test for significance is $t = 7.87$ calculated.
-) In the case of NABIL, the correlation between interest rate on lending and lending amount is $r = -0.2019$. It has negative correlation, which support the inverse relationship on both variables. For supporting the correlation, the t-test for significance is $t = 3.68$ calculated.
-) In the case of NIC ASIA, the correlation between interest rate on lending and lending amount is $r = -0.3341$. It has negative correlation, which support the inverse relationship on both variables. For supporting the correlation, the t-test for insignificance is $t = 0.0016$ calculated.
-) In the case of NCC, the correlation between interest rate on lending and lending amount is $r = -0.1798$. It has negative correlation, which support the inverse relationship on both variables. For supporting the correlation, the t-test for insignificance is $t = 0.0005$ calculated.
-) In the case of EBL, the correlation between interest rate on lending and lending amount is $r = -0.9254$. It has negative correlation, which support the inverse relationship on both variables. For supporting the correlation, the t-test for significance is $t = 3.13$ calculated.

Concluding from above, the inverse relation holds between lending rate and lending amount in all sample banks. In general theory (If lending rate is increase/decrease, at that situation lending amount is decrease/increase) is applicable in sample banks.

3. According to theory, deposit rate and lending rate should have positive relationship. In general theory (If deposit rate increase/decrease, at that situation lending rate is increase/decrease) is applicable in sample banks. In case of lending to deposit ratio, the NIC ASIA bank has the highest ratio and NBL bank has the lowest ratio. It means NIC ASIA bank shows good financial position than other sample banks. The lending to deposit ratio of all sample banks are in increasing trend. This indicates that all the sample banks under the study are able to mobilize its fund to the maximum extent. The interest spread rate as per NRB directives requirement i.e. 5%, so NRB is not successful to maintain spread rate to 5%.

4.4.2 Major Finding from Primary Data

The major findings from the presentation and analysis of primary data are as follows:

1. The respondents' viewpoint on strongly disagree, disagree, neutral, agree and strongly agree of interest rate determining process is suitable in Nepalese CBs are 26.21 percent, 45.52 percent, 3.45 percent, 19.31 percent and 5.52 percent respectively. The total respondent's viewpoint in 'Disagree' result is greater than other results.
2. The respondents' viewpoint on highly positive, positive, no relationship, negative and highly negative relationship of interest rate on deposit and deposit amount in Nepalese CBs are 60.69 percent, 21.38 percent, 2.76 percent, 9.66 percent and 5.52 percent respectively. The total respondent's viewpoint in 'Highly Positive' result is greater than other results.
3. The respondents' viewpoint on highly positive, positive, no relationship, negative and highly negative on relationship of interest rate with lending and lending amount in Nepalese CBs are 6.21 percent, 11.03 percent, 2.76 percent, 29.26 percent and 50.34 percent respectively. The total respondent's viewpoint in 'Highly Negative' result is greater than other results.
4. The respondents' viewpoint on strongly disagree, disagree, neutral, agree and strongly agree of interest rate plays a vital role in success of Nepalese CBs are 3.45 percent, 8.28 percent, 13.10 percent, 27.59 percent and 47.59 percent respectively. The total respondent's viewpoint in 'Strongly Agree' result is greater than other results.
5. The respondents' viewpoint on highly affect, affect, moderately affect, lowerly affect and no affect on interest rate affects to deposit and lending of Nepalese CBs are 52.41 percent, 26.90 percent, 10.34 percent, 6.21 percent and 4.14 percent respectively. The total respondent's viewpoint in 'Highly Affect' result is greater than other results.
6. The respondents' viewpoint on strongly disagree, disagree, neutral, agree and strongly agree on interest rate of Nepalese CBs impact the inflation rate of Nepal are 4.83 percent, 8.28 percent, 8.28 percent, 26.90 percent and 51.72 percent

respectively. The total respondent's viewpoint in 'Strongly Agree' result is greater than other results.

7. The respondents' viewpoint on highly positive, positive, no relationship, negative and highly negative on the relationship of interest rate on deposit and interest rate on lending in Nepalese CBs are 4.14 percent, 6.21 percent, 5.52 percent, 26.21 percent and 57.93 percent respectively. The total respondent's viewpoint in 'Highly Negative' result is greater than other results.
8. The respondents' viewpoint on strongly disagree, disagree, neutral, agree and strongly agree on the change in interest rate changes the net profit of Nepalese CBs are 4.83 percent, 11.03 percent, 11.72 percent, 46.21 percent and 26.21 percent respectively. The total respondent's viewpoint in 'Agree' result is greater than other results.

Concluding from above, there should be strong positive relationship between the deposit amount and interest rate on deposit. Also, there should be inverse relationship between lending amount and interest rate on lending.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter is the last part of this study which is the most important chapter for the research because this chapter extracts of all the previously discussed chapters. This chapter mainly consists of three parts: summary, conclusion and recommendation. In summary portion revision of all four chapters are summarized. Then conclusion is drawn following analysis part and comparing the theoretical aspect and analysis. Conclusion part answers whether practically relates to theory or not. Based on conclusion necessary suggestions are presented in recommendation part i.e. various measures are recommended and suggested to concerned organization for the improvement of the current condition of interest rate structure of commercial banks.

5.1 Summary

After the liberalization policy of Government various banks and financial institutions came into existence with the hope to play important role in the development of financial system and economy of the country and, it helps to raise the living standard of the people. Commercial banks are one of the vital aspects of this sector, which deals in the process of channelizing the available resources in the needed sectors. It is the intermediary between the deficit and surplus of financial resources. After the adoption of economic liberalization policy, particularly the financial sector liberalization that paved the way for establishment of new banks and non-bank financial institutions in the country.

This thesis makes of study of five CBs namely Government controlled and few purely profit oriented, merger, foreign owner and joint venture banks. Financial institution act as an intermediary between the individual who lend and who borrow. These institutions accept deposits and in turn lend it to people who are in need of financial resources. These institutions make the flow of fund easier. It pools the fund scattered in the economy and mobilizes them to the productive sector. As focus on the above explanation the study has covered on the study of relationship of interest rates with deposit and lending by five years data and mainly concerns five CBs in Nepal. For the purpose of the study, the

necessary data on interest rate, deposit mobilization and other related variables were collected for the period 2010/11 to 2014/15. With the major objectives of showing relationship between deposit rate and deposit amount, lending rate and lending amount is undertaken.

In first chapter, even though there are various factors in the economy that affects the volume of deposit and lending, interest rate is one of the major indicator and factor that affect deposit and lending amount. With the major objective of showing relationship between deposit rate and deposit amount i.e. substitution effect, lending rate and lending amount, this study is undertaken. The study is conducted to identify whether some of the theories of finance and economics are applicable or not in the Nepalese financial markets. The major theories are substitution effect, fisher effect and inverse relationship between interest rate and lending amount. For this purpose, brief introduction about Nepalese economy, interest rate, sample organizations, statement of problem, and significance of the study and limitation of study are made of this dissertation.

In second chapter, the review of literature shows that there are so many economic and non-economic factors those are related with deposit and lending. Different views about interest, function of interest, theories of interest, types of interest, factors affecting interest rate and so on are reviewed. Of the theories of interest, the main four theories: – The Classical Theory, Liquidity Preference Theory, Loanable Fund Theory and Rational Expectation Theory are reviewed. Similarly, the term structure of interest rate are- The Expectation Hypothesis, The Liquidity Premium Theory, The Segmented Markets Theory, and The Preferred Habitat Theory explains in this chapter. But, it is real fact that there is relationship of interest rate with deposit and lending amount. According to the theoretical views there is positive relationship in between interest rate on deposit and deposit amount. Similarly, there is negative relationship in between interest rate on lending and lending amount of banks. Various CBs and financial institutions in Nepal are free to set their interest rate without crossing the limit of central bank's directives and policies.

In third chapter, the research design used is mainly descriptive and analytical. The study is mainly based on primary data as well as secondary data used for the analysis. Secondary data are collected from published and unpublished sources also primary data are collected from survey method through questionnaires. Out of the total financial system, five commercial banks (NBL, NABIL, NIC ASIA, NCC and EBL) are chosen for sample purpose for secondary data. Similarly, out of unlimited respondents, only 145 respondents are chosen for sample for primary data.

Lastly on fourth chapter, collected data are presented in tabular and graphic form and analyzed using various financial and statistical tools like mean, standard deviation, correlation coefficient and t-statistics. The analysis of all banks shows average interest rate on deposit is in decreasing and deposit amount is in increasing trend. Similarly, the interest rate on lending is also decreasing and lending amount is in increasing trend. This trend shows, there is positive relationship between deposit rate and deposit amount and also inverse relationship between lending rate and lending amount of CBs. The statistical analysis also shows that there is significant relationship between deposit and deposit amount and lending rate and lending amount. The average interest rate spreads of all banks are found good but NBL has a higher comparing to others of all the sample study period i.e. for five years. Likewise the average lending to deposit ratios are found good but NABIL bank is not able to deploy its deposit in terms of lending properly for the sample study periods. Thus, interest rate structure of CBs has greater influence over funds mobilization in the productive sector. However, the CBs in Nepal have not been fully able to succeed in regard.

5.2 Conclusion

From the presentation and analysis of relevant data of sample banks under the study; using various statistical and financial tools mentioned in previous chapters and from their major finding following conclusions have been drawn.

-) The conclusion of this research is that the interest rates on deposit are in increasing trend but most of years have same rates and lending rate of all sample banks are found to be in decreasing trend.

-) Interest rate is influenced by the demand and supply of loan able funds. If the supply increases and demand remains constant, interest rate decreases. Similarly, if the supply decreases and demand remains constant, interest rate increases.
-) There has been wide gap between interest rate on deposit and interest rate on lending in early years, the later being much bigger. Though, the gap has been narrowed down in later years. This is a good sign as it sends positive signals to depositors and lenders.
-) Depositors are attracted more towards non-government controlled commercial banks like SCB, KBL, NIC ASIA and NABIL etc. as they offer comparatively higher interest rate on deposit than Government controlled CBs like NBL, ABL and RBBL.
-) This study concludes that fluctuations in the interest rate of the CBs slightly relation with deposit and lending. But as per t-test the relation is not significant for NIC ASIA and NCC. This shows that the substitution effect in case of NBL, NABIL and EBL for saving account is applicable but in case of NCC and NIC ASIA is not applicable.
-) The interest rates on both deposit and lending of sample banks are found to be in fluctuating trend. Therefore, there is a positive relationship between deposit interest rate and deposit amount of all sample banks as proved by positive correlation coefficient of all banks as well as successful insignificant t-test of all sample banks.
-) Similarly, there is positive relationship between interest rate on deposit and deposit amount. From the study, there is negative correlation coefficient between lending rate and lending amount, this negative correlation indicates that there is inverse relationship between lending interest rate and lending amount, as per t- test the relation is significant for all sample banks. Therefore it is conclude that there is substitution effect at all.
-) It is found that deposit rate and lending rate of sample banks are moved into same direction. Banks want to maintain the interest rate spread (i.e. difference of lending rate and deposit rate) to achieve uniform profitability due to which the positive relation between the rates is witnessed. But decrease in deposit interest rate is more than decrease in lending rate which is constraint for investment.

-) The interest rates in Nepalese economy are highly affected by inflation rate. There should be positive correlation between interest rate on deposit and inflation rate.

In conclusion it can be said that, the Fisher effect is not properly applicable in Nepalese banks and financial institutions.

5.3 Recommendation

To full fill the objectives of the study, related data and ideas are collected from different sources. These data are presented, analyzed and interpreted then conclusions of this study certain recommendation can be made here. So that the concerned authorities, further researcher, academicians and bankers can get insights on the present conditions of above topic. It is considered that this research will fruitful for them to improve the present condition as well as for further research. The major recommendations after this study are as follows:

-) The Government should ensure political stability, peace and overall development in the country. These activities are essential for development of banking sector and bringing confidence among depositors and borrowers.
-) The financial institutions should benefit from democratic setup and involve in healthy competition. They should create various offer schemes to induce depositors and borrowers, thus solving over liquidity problem which may help to increase the deposit collection and properly investment.
-) Nepal Rastra Bank should play an efficient role of facilitator, regulator and watchdog. It has a very important role in promoting business activities in the country by using its tools of controlling and inflation. To provide clear cut policies related to interest rates on deposit, lending rate and inflation.
-) Interest rate on deposit is too less in Nepal. CBs are suggested to increase the interest rate on deposit so the depositors are benefited by their saving.
-) The interest spread rate as per NRB directives requirement i.e. NRB is not successful to maintain interest spread rate to 5%. The high interest rate spread is another factor to be considered by CBs. Higher spread merely increases the partite margin of the banks but

the same time it reduces the deposit collection and investment in the country. So financial institutions are suggested to reduce the interest spread rate as minimum as possible also as per NRB directives.

-) The financial institutions are suggested to include the inflation premium as far as possible while fixing the interest rates. If the inflation rate is not considered and real rate come out to be negative then depositors may withdraw their money and utilize it on non-productive sectors.
-) As the key to success for any organization and for good financial system in the country capital formation and investment is essential, this is possible only by proper decision making of interest. So all the CBs are supposed to set proper and practical interest rate policy.
-) While reducing the lending rate, it is suggested to reduce more productive sectors than non-productive sectors. If not possible then bankers can reduce the rate of all sectors proportionately.
-) Banks are not able to mobilize to its deposits in terms of loan due to lack of sufficient safe investment opportunities. Thus it is suggested to the Government to improve the political situation of the country that CBs can invest their deposit for country's economy development.

As NRB's publications are the major sources of data and information regarding this topic, untimely and late publication makes the researcher wait long and even individual banks do not put available information regarding interest rate structure on their published reports. So NRB and even individual CBs are suggested to published all necessary publication in time and their publications respectively for the convenience of researcher and other interested people.

BIBLIOGRAPHY

BOOKS:

Kerlinger, F. N. (1986). *Foundations of Behavioral Research*, New York: Holt, Rinehart & Winston.

Bhandari, D. R. (2003). *Principle and Practices of Banking and Insurance*, Asia Publications, Kathmandu, p. 73.

Gupta, S. C. (2002), *Fundamental of Statistics*, Himalayan Publishing House, Bombay.

Thapa, k. (2008-2014). *Financial institutions and markets*, Kathmandu: Asmita Books Publishers and Distributors (P) Ltd.

Lohani, N. (2002). *A hand book to Investment Analysis*. Kathmandu: Nabin Prakashan.

Sekaran, U. (2007). *Research methods for business: A skill building approach*. Singapore: John Wiley & Sons.

Wolff, H. K. & Pant, P. R. (2005) *Social Science Research and Thesis Writing*, Buddha Academic publishing and distributors, Kathmandu, Nepal.

Joshi, S. (2056). *Micro & Macro Economic Analysis*, Taleju Prakashan: Bhotahity, Katmandu.

Kothari, C. R., (1997) *Research Methodology, Methods and Techniques*, Vikash Publication House Pvt. Ltd, New Delhi.

Zikmund, W. G. (2007). *Business research methods*, New Delhi: Thomson.

Newman, W. L. (2006). *Social research methods: Quantitative and qualitative approaches*. New Dehli: Pearson Education.

Walliman, N. (2006). *Your research project: A step-by-step guide for first-time researcher*. New Dehli: Vistaar Publications.

Pant, G. D. & Chaudhary, A. K. (1999). *Business Statistics and Mathematics*, Kathmandu: Variety Printers Pvt. Ltd.

Rose, P. S. (1997). *Money and Capital Markets: Financial Institution and Instruments in a Global Marketplace*, Irwin, Chicago, sixth edition.

Samuelson, P. A. & Nordhus. (1993). *W. D. Economics*, Sixteen edition, Tata Mc Graw Hill Publishing Company Limited, New Delhi, P. 469.

Sharma, P. K. & Chaudhary, A. K. (2069), *Statistical Methods*, Khanal Books Prakashan: Minbhawan, Kathmandu, p.229.

Sharpe, W. F. (2003), *Investments*, sixth edition, Prentice Hall of India Private Limited, New Delhi

Shrestha, S. & Silwal, D. P. (2059) *Statistical Methods in Management*, Taleju Prakashan, Bhotahity, Katmandu

Vaidhya, S. (2008), *Financial Markets and Institutions*, Kathmandu: Khanal Books and Stationers.

Goet, J. & et al. (2010). *Managerial Accounting*, Kathmandu: Asmita Books Publishers and Distributors (P) Ltd.

Manandhar, K. D. & et al. (2011). *Managerial Finance*, Kathmandu: Khanal Publication
Pant, P. R. (2012). *Social Science Research and Thesis writing* (6th edition), Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd.

Paudel, R. B. & et al. (2010). *Managerial Finance* (2nd edition). Kathmandu: Ashmita Books Publishers and Distributors (P) Ltd.

Robinson, R. I. (1951). *The Management of Bank Funds*, New York: McGraw Hill.

K. C., F. (1999). *The Banking System in Nepal*, Kathmandu: Ashmita Books Publishers and Distributors Pvt. Ltd.

Banker, M. J. (2002). *Sampling*, the Marketing Review, 3/1, 103-120.

Faculty of Management (2009). M.B.S.: *Courses of study*. Kathmandu: Office of the Dean, Faculty of Management, Tribhuvan University.

Oliver, P. (2008). *Writing your thesis*, New Delhi: Vistaar Publications.

Keynes, J. M. (1936). *The General Theory of employed Interest and Money*.

Weston, J. F. & Brigham, E. F. (1987). *Essentials of Managerial Finance* (8th edition) Orlando, USA. The Dryden Press.

THESIS:

Adhikari, D. R. (2013). *An Analysis of Interest Rate Structure of CBs in Nepal*, An Unpublished MBA thesis, Tribhuvan University.

Aryal, M. R. (2012). *Interest Rate & its impact on mobilization in Nepalese CBs*, An Unpublished MBS thesis, Tribhuvan University.

Bhatta, S. (2006). *Interest Rate and its effect on Deposit and Lending*, An Unpublished M.B.S thesis, T. U. Kathmandu.

Bhattra, N. (2010). *Relationship of Interest Rate with Deposit, Lending and Inflation in Nepal*, An Unpublished MBS thesis, Tribhuvan University.

Kshetry, K. K. (2095). *Interest Rate Structure and Its Relation with Deposits, Inflation and Credit in Nepal*, Kathmandu: An unpublished MBA thesis submitted to Tribhuvan University, Nepal.

Neupane, K. (2008). *Interest Rate Structure and its influence on Deposit and Lending of Joint Venture Banks in Nepal*, An unpublished MBS thesis submitted to Tribhuvan University.

Pokhrel, Y. L. (2011). *Interest Rate and its relation with deposit, lending and inflation in Nepal*, An Unpublished M. A. thesis, Tribhuvan University.

Parajuly, S. (2005). *Interest Rate and its relation with Deposit, Lending and Inflation in Nepal*, Kathmandu: An unpublished MBS thesis submitted to Tribhuvan University, Nepal.

Sharma, R. (2007). *Interest Rate and its relation with Deposit, Lending and Inflation in Nepal*, Kathmandu: An unpublished MBS thesis submitted to Tribhuvan University, Nepal.

Shrestha, S. K. (2011). *Interest Rate assessment of CBs and its Impact on Deposit and Lending*, An unpublished M.A. thesis, T. U. Kathmandu.

Upadhyaya, E. (2010). *Impact of Interest Rate on Deposit and Lending of CBs in Nepal*, An unpublished MBS thesis submitted to Tribhuvan University.

REPORTS, JOURNALS AND ARTICLES:

Kantipur Daily News, (2010). "*Crisis Impact Delayed Here: IMF- International Monetary Fund (IMF)*", July 06, 2010.

New Business Age, (2004). *All Banks in Profit*, Kathmandu: September 04, 2004.

Bhandari, (2007). *The Impact of Interest Rate structure on Investment Portfolio of CBs in Nepal*: Kantipur Daily News, Kathmandu.

Bajracharya, (2010), *Monitory Policy and Deposit Mobilization in Nepal*: Nepal Rastra Bank Samachar, Kathmandu.

Pant, (2012), *A study of CBs Deposit & its Utilization*: Nepal Rastra Bank Samachar, Kathmandu.

Paudel, (2013), *NRB Directives and effect of Interest Rate of CBs*: Nepal Rastra Bank Samachar, Kathmandu.

Ministry of Finance, (2067-2072). *Economic Report*, Kathmandu.

Monetary Policy, NRB. (2010-2015).

Commercial Bank Act, (2031).

Nepal Rastra Bank, 2010 - 2015. “*Bank and Financial Statistics*”, No.37 to 43, Mid-July, Kathmandu

Nepal Rastra Bank, 2010 - 2015. “*Economic Report*”, Kathmandu

APA style (2011). Washington D. C.: Authors.

Samachar. NRB. (2067- 2072)

Ibid, p. 193-197.

Micro Economics Indicators of Nepal: NRB. 2010-2015.

Nepal Rastra Bank (Baishakh 2072/73). *Mirmire Monthly*. Kathmandu: Banker’s club.

Nepal Bank Ltd., (2067/68-2072/73). Annual Reports

NCC Bank Ltd., (2067/68-2072/73). Annual Reports

NABIL Bank Ltd., (2067/68-2072/73). Annual Reports

Everest Bank Ltd., (2067/68-2072/73). Annual Reports

NIC ASIA Bank Ltd., (2067/68-2072/73). Annual Reports

WEBSITES:

<http://www.google.com>

<http://www.nepalstock.com.np>

<http://www.ekantipur.com.np>

<http://www.nabilbank.com.np>

<http://www.nccbank.com.np>

<http://www.nicasiabank.com.np>

<http://www.everestbank.com.np>

<http://www.mof.gov.np>

<http://www.nepalbank.com.np>

<http://www.nrb.org.np>

APPENDIX A

Appendix 1:

Interest Rate with Deposit and Lending Amount of Sample Banks:

1. Nepal Bank Limited:

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	2.95	42129.9	9.16	25074.2
2011	3.9	46804.2	11.43	26637.8
2012	4.54	56042.6	11.14	29552
2013	4.71	62988.9	10.80	37844.1
2014	4.08	69341.2	9.55	41191

2. NABIL Bank Limited:

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	3.7	46334.8	10.41	32902.8
2011	4.2	49691.4	11.95	38765.6
2012	6.1	55023.7	12.66	42731.7
2013	6.42	63611.3	11.23	47522.9
2014	4	75384.5	10.32	55829.6

3. NIC ASIA Bank Limited:

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	4	15968.9	10.23	12906.1
2011	4.25	18394.4	12.46	15149.3
2012	4.92	22111.8	12.73	17460.2
2013	4.83	39911.9	11.77	32240.9

2014	4.5	44982.8	10.18	37300.7
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4. NCC Bank Limited:

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	5.4	10824.7	11.32	8373.4
2011	4.7	10951.3	12.36	9217.1
2012	5.08	16485.4	12	12886.1
2013	5.13	21650.8	12.60	15919.5
2014	5.88	22256.9	10.86	17845.6

5. Everest Bank Limited:

Years	Deposit		Lending	
	Interest Rate	Amount	Interest Rate	Amount
2010	4.2	36932.3	11.95	28129.7
2011	4.67	41127.9	12.23	31354.7
2012	5.71	50006.1	11.68	36376
2013	4.92	62108.1	11.18	47955.9
2014	4.46	72208.3	10.18	52203.5

Appendix 2:

Mean, Standard Deviation and C. V. of Interest Rate of Sample Banks:

Banks	Deposit Rate			Lending Rate		
	Mean(μ)	S.D.(σ)	C.V.	Mean(μ)	S.D.(σ)	C.V.
NBL	4.036	0.6910	17.12	10.42	1.0040	1.0080
NABIL	4.884	1.2727	26.10	11.31	1.0047	1.0042
NIC ASIA	4.5	0.3864	8.59	11.47	1.2089	1.4614
NCC	5.238	0.4354	8.31	11.83	0.7226	0.5222
EBL	4.792	0.5772	12.05	11.44	0.8051	0.6482

For NBL:

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

$$\text{Whole Mean on Deposit Rate } (\bar{X}) = \frac{(2.95 + 3.9 + 4.54 + 4.71 + 4.08)}{5} = 4.036$$

$$\text{Standard Deviation } \sqrt{\frac{\sum fX^2 - \frac{(\sum fX)^2}{n}}{n}} = \sqrt{\frac{3.455}{5}} = 0.6910$$

$$\text{Coefficient of Variance (C.V.)} = \frac{s}{\bar{X}} \times 100 = 0.6910/4.036 \times 100 = 17.12\%$$

And So On.....

Appendix 3:

Correlation Analysis of Sample Banks:

Relationship between Deposit Rate and Deposit Amount:

Banks	Correlation(r)	(r ²)	t-test value		Result
			Calculated	tabulated	
NBL	0.6999	0.4899	3.97	2.776	Significance
NABIL	0.1538	0.0246	3.92	2.776	Significance
NIC ASIA	0.4853	0.2355	0.0014	2.776	Insignificance
NCC	0.5344	0.2856	0.0016	2.776	Insignificance
EBL	0.0880	0.0078	4.34	2.776	Significance

For NBL:

$$\text{Simple Correlation Coefficient } (r) = \frac{n\sum X_1X_2 - \sum X_1 \sum X_2}{\sqrt{n\sum X_1^2 - (\sum X_1)^2} \sqrt{n\sum X_2^2 - (\sum X_2)^2}}$$

$$r = \frac{5 | 2263481.01 - 72.162 | 192982.7}{\sqrt{5 | 975.589 - (72.165)^2} \sqrt{5 | 5331755326 - (192982.7)^2}} = 0.6999$$

$$\text{Coefficient of Determination} = (r)^2 = 0.6999^2 = 0.4899$$

T-test Statistics:

t = For NBL t-calculation for Deposit rate and Deposit amount is

$$t = \frac{r}{\sqrt{1 - r^2}} \sqrt{n - 2}$$

$$t = \frac{0.6999}{\sqrt{1 - (0.6999)^2}} \sqrt{5 - 2} = 3.91$$

$$\text{Degree of Freedom (d. f.)} = n - 2 = 5 - 2 = 3$$

Tabulated/Critical Value:

For t-test at 5% = 2.776 (two tailed)

For 'r' at 5% = 0.5 (significance)

Decision:

If Calculated Value > Tabulated Value = H₀ is Rejected or H₁ is Accepted.

If Calculated Value < Tabulated Value = H₀ is Accepted or H₁ is Rejected.
 And So On.....

Relationship between Lending Rate and Lending Amount:

Banks	Correlation(r)	(r ²)	t-test value		Result
			calculated	tabulated	
NBL	-0.1505	0.0227	7.87	2.776	Significance
NABIL	-0.2029	0.0412	3.68	2.776	Significance
NIC ASIA	-0.3341	0.1116	0.0016	2.776	Insignificance
NCC	-0.1798	0.0323	0.0005	2.776	Insignificance
EBL	-0.9254	0.8564	3.13	2.776	Significance

Relationship between Deposit Rate and Lending Rate:

	Correlation(r)	(r ²)	t-test value		Result
			calculated	tabulated	
NBL	0.6552	0.4293	2.634	2.776	Insignificance
NABIL	0.5887	0.3466	2.072	2.776	Insignificance
NIC ASIA	0.5362	0.2875	1.807	2.776	Insignificance
NCC	-0.8688	0.7548	1.193	2.776	Insignificance
EBL	0.1078	0.0116	3.877	2.776	Significance

Appendix 4:

Financial Analysis of Different Ratios:

Analysis of total lending and total deposit amount ratios:

Banks/Years	2010	2011	2012	2013	2014
NBL	59.52	56.91	52.73	60.08	59.40
NABIL	71.01	78.01	77.66	74.71	74.06
NIC ASIA	80.82	82.36	78.96	80.78	82.92
NCC	77.35	84.16	78.06	73.53	80.18
EBL	70.44	76.67	72.74	77.21	77.21

Analysis of interest rate spread:

Banks/Years	2010	2011	2012	2013	2014
NBL	6.76	7.53	6.59	6.09	5.47
NABIL	6.71	7.76	6.56	4.81	6.32
NIC ASIA	6.23	8.21	7.81	6.95	5.68
NCC	5.92	6.67	6.2	7.47	4.99
EBL	7.76	7.56	5.97	6.26	5.72

APPENDIX B

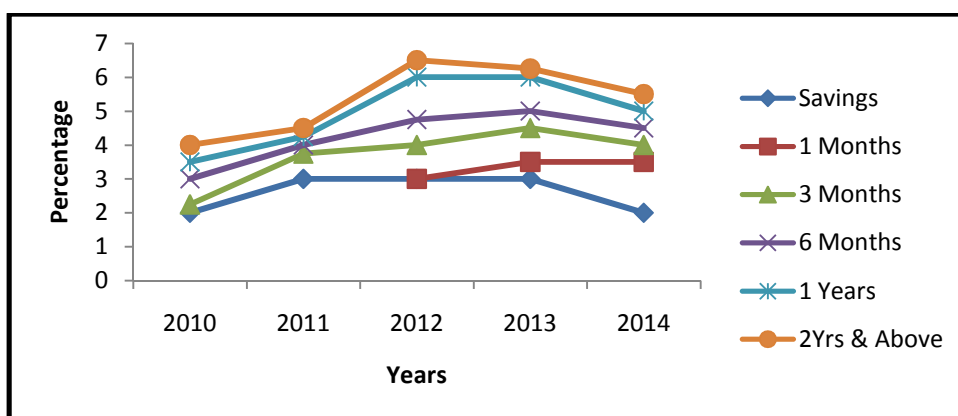
Appendix 1:

Calculation of Average Deposit & Lending Rate and graphs of Sample Banks

Nepal Bank Limited:

Deposits	2010	2011	2012	2013	2014
Savings	2	3	3	3	2
1 Months			3	3.5	3.5
3 Months	2.25	3.75	4	4.5	4
6 Months	3	4	4.75	5	4.5
1 Years	3.5	4.25	6	6	5
2Yrs & Above	4	4.5	6.5	6.25	5.5
Average Deposit Rate	2.95	3.9	4.542	4.708	4.083

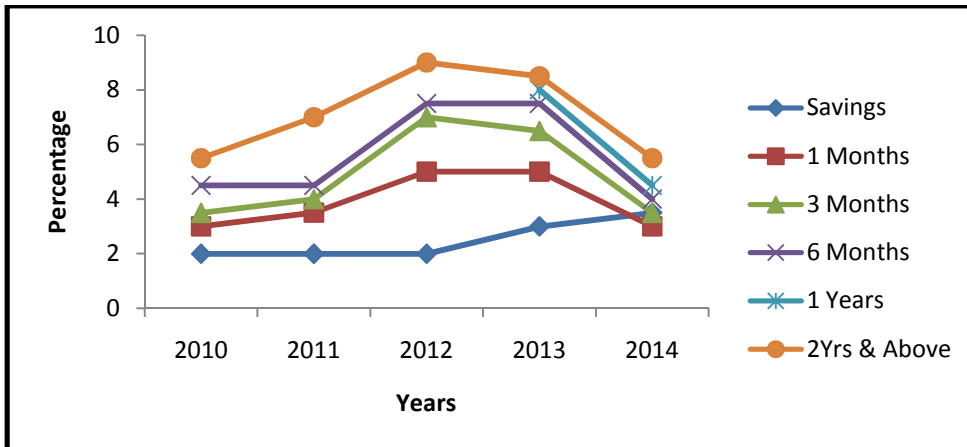
Lending	2010	2011	2012	2013	2014
Overdraft	10	14.25	12.5	11.75	10.5
Export Credit	9.5	11.5	9.75	9.5	7.5
Import L/C	6.5	7.25	7.5	7.5	8.5
Loan Against GS	9.5	10.75	10.5	10.25	9.5
Industrial Loan	8.5	14.25	12.5	12.25	10.5
Commercial Loan	8.5	14.25	13	12.5	10.5
Deprived	11.5	10.5	10.25	9.5	8.5
Term Loan	9.5	9.5	10.5	10.5	9.5
Working Capital	10	10.5	11	11	9.5
Hire Purchase	8.5	10.5	12.5	12.5	10.5
Others	8.75	12.5	12.5	11.5	10
Average Lending Rate	9.16	11.43	11.14	10.80	9.55



NABIL Bank Limited:

Deposits	2010	2011	2012	2013	2014
Savings	2	2	2	3	3.5
1 Months	3	3.5	5	5	3
3 Months	3.5	4	7	6.5	3.5
6 Months	4.5	4.5	7.5	7.5	4
1 Years				8	4.5
2Yrs & Above	5.5	7	9	8.5	5.5
Average Deposit Rate	3.7	4.2	6.1	6.42	4

Lendings	2010	2011	2012	2013	2014
Overdraft	8.5	12.5	14.25	13.5	12
Export Credit	10.5	13	13.5	12.5	11
Import L/C	12	13.5	13.5	11.5	10
Loan Against GS	11.5	11.5	12	10.5	9.5
Industrial Loan	8.5	13	13.5	12	10.5
Commercial Loan	8.5	10.5	13.5	11.5	11
Deprived	7.5	8.5	8.5	7	7
Term Loan	12.5	13	13	12.5	11.5
Working Capital	10.5	9.5	9.5	8.5	8.5
Hire Purchase	12	13	13.5	11.5	10.5
Others	12.5	13.5	14.5	12.5	12
Average Lending Rate	10.41	11.96	12.66	11.23	10.32

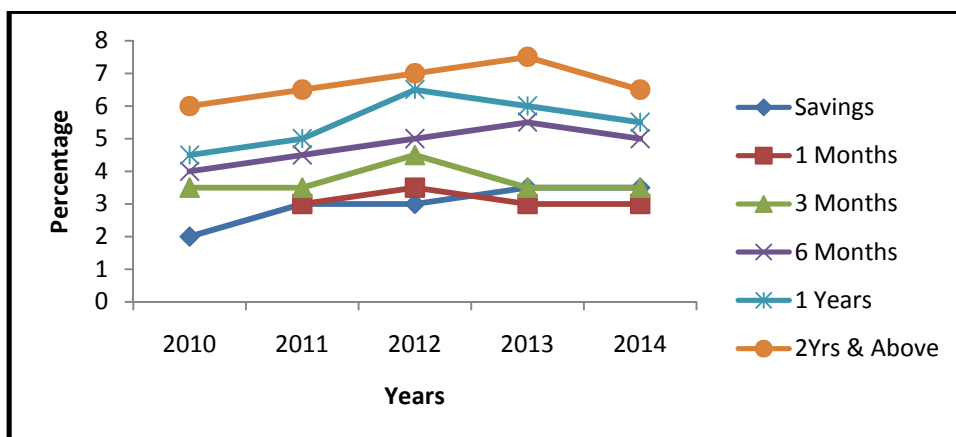


NIC ASIA Bank Limited:

Deposits	2010	2011	2012	2013	2014
Savings	2	3	3	3.5	3.5
1 Months		3	3.5	3	3
3 Months	3.5	3.5	4.5	3.5	3.5
6 Months	4	4.5	5	5.5	5
1 Years	4.5	5	6.5	6	5.5

2Yrs & Above	6	6.5	7	7.5	6.5
Average Deposit Rate	4	4.25	4.92	4.83	4.5

Lendings	2010	2011	2012	2013	2014
Overdraft	11	12.5	12.5	11.5	11.5
Export Credit	8.5	13.5	12	12	10
Import L/C	11	12	13.5	10.5	9
Loan Against GS	8.5	10.5	12.5	12.5	9
Industrial Loan	10	12.5	12.5	11.5	11
Commercial Loan	8.5	13.5	13.5	12	10.5
Deprived	11.5	12	12.5	11.5	10
Term Loan	10	11.5	12	12.5	10
Working Capital	11	12.5	13	11	9.5
Hire Purchase	10.5	14	13.5	13	10.5
Others	12	12.5	12.5	11.5	11
Average Lending Rate	10.23	12.46	12.73	11.78	10.18

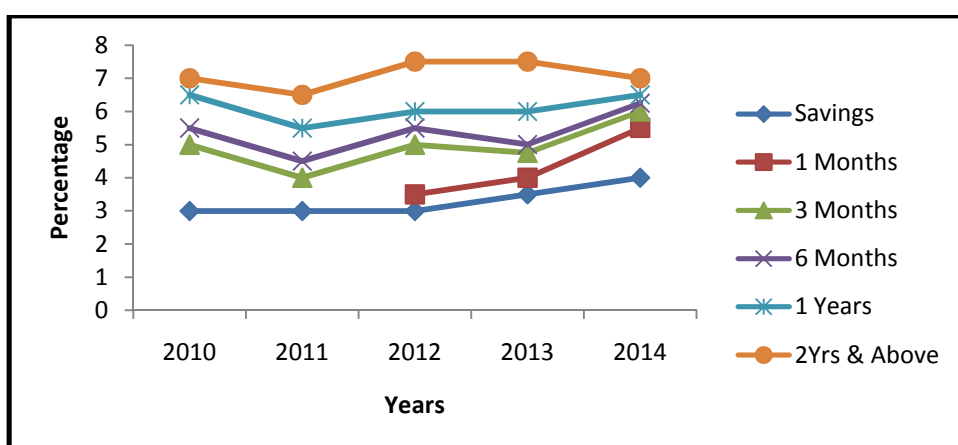


NCC Bank Limited:

Deposits	2010	2011	2012	2013	2014
Savings	3	3	3	3.5	4
1 Months			3.5	4	5.5
3 Months	5	4	5	4.75	6
6 Months	5.5	4.5	5.5	5	6.25
1 Years	6.5	5.5	6	6	6.5
2Yrs & Above	7	6.5	7.5	7.5	7
Average Deposit Rate	5.4	4.7	5.08	5.13	5.88

Lendings	2010	2011	2012	2013	2014
Overdraft	10	12.5	13.5	14.5	12

Export Credit	10.5	12.5	9.5	11.5	10
Import L/C	10.5	12.5	12.5	13.5	12.5
Loan Against GS	11	12	13	13	11
Industrial Loan	10.5	13.5	11.5	12.5	10.5
Commercial Loan	13	13.5	12.5	12.5	10
Deprived	11.5	11.5	10.5	10.5	9.5
Term Loan	13	12.5	13	13.5	12
Working Capital	12	12.5	11.5	11.5	9.5
Hire Purchase	10.5	10.5	12	12	11.5
Others	12	12.5	12.5	13.5	11
Average Lending Rate	11.32	12.36	12	12.60	10.86

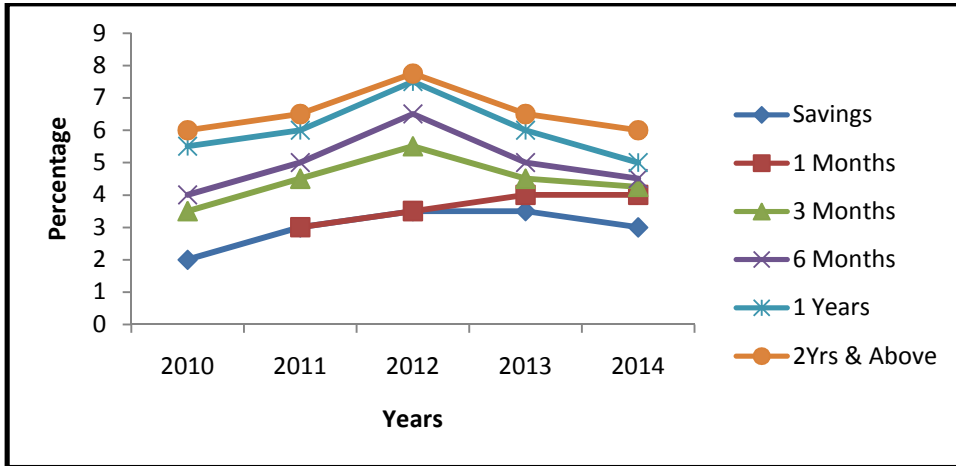


Everest Bank Limited:

Deposits	2010	2011	2012	2013	2014
Savings	2	3	3.5	3.5	3
1 Months		3	3.5	4	4
3 Months	3.5	4.5	5.5	4.5	4.25
6 Months	4	5	6.5	5	4.5
1 Years	5.5	6	7.5	6	5
2Yrs & Above	6	6.5	7.75	6.5	6
Average Deposit Rate	4.2	4.67	5.71	4.92	4.46

Lendings	2010	2011	2012	2013	2014
Overdraft	13	12.5	12	11	9.5
Export Credit	13.5	12	11.5	10	9.5
Import L/C	14	14	14.5	13	12.5
Loan Against GS	10	11.5	11.5	12	11.5
Industrial Loan	12.5	12	11.5	10.5	10
Commercial Loan	12.5	12	11	10	9.5
Deprived	10.5	12.5	11.5	11.5	9.5

Term Loan	10	10.5	12.5	12.5	10
Working Capital	10.5	12.5	12	11.5	10.5
Hire Purchase	11	11.75	10	10	10
Others	14	13.25	10.5	11	9.5
Average Lending Rate	11.96	12.23	11.68	11.18	10.18



APPENDIX C

QUESTIONNAIRES

- 1) Does the interest rate determining process is suitable in Nepalese CBs?
 - I. Strongly Disagree
 - II. Disagree
 - III. Neutral
 - IV. Agree
 - V. Strongly Agree

- 2) What's the relationship of interest rate on deposit and deposit amount of CBs?
 - i. Highly Positive
 - ii. Positive
 - iii. No Relationship
 - iv. Negative
 - v. Highly Negative

- 3) What's the relationship of interest rate on lending and lending amount of CBs?
 - i. Highly Positive
 - ii. Positive
 - iii. No Relationship
 - iv. Negative
 - v. Highly Negative

- 4) Does the interest rate play a vital role in success of CBs than other factors?
 - i. Strongly Disagree
 - ii. Disagree
 - iii. Neutral
 - iv. Agree
 - v. Strongly Agree

- 5) How far the interest rate affects to deposit and lending of CBs?
 - i. Highly Affect
 - ii. Affect
 - iii. Moderately Affect
 - iv. Lowerly Affect
 - v. No Affect

- 6) Does the interest rate of CBs impact the inflation rate of Nepal?
- i. Strongly Disagree
 - ii. Disagree
 - iii. Neutral
 - iv. Agree
 - v. Strongly Agree
- 7) What is the relationship of interest rate on deposit and interest rate on lending of CBs?
- i. Highly Positive
 - ii. Positive
 - iii. No Relationship
 - iv. Negative
 - v. Highly Negative
- 8) Does the change in interest rate changes the Net profit of CBs?
- i. Strongly Disagree
 - ii. Disagree
 - iii. Neutral
 - iv. Agree
 - v. Strongly Agree

Name (Optional):
Occupation:
Address:
Signature (Optional):
Date:

Thank you for your response, cooperation and participation with this research study.

Dear Sir/Madam,

I am undertaking a study on “Relationship of Interest Rate with Deposit and Lending of Commercial Banks in Nepal”. This study is undertaken in partial fulfillment of the requirements for my MBS degree.

Your name has been selected as part of relatively small sample, so your reply is vital to the accuracy of the study findings. All individual responses will remain completely confidential, with answers combined and presented in statistical form only.

Please read each question thoroughly and answer the best of your opinion, knowledge and experience. Simply, mark tick () on ‘X’ to your response. I will be very grateful if you kindly fill up these questionnaires. I really need and value your opinions.

I look forward to your reply.

Cordially,
Mahendra Kumar Regmi
Central Department of Management
Kritipur, Kathmandu
E-mail ID: mahendraregmi_k@gmail.com

QUESTIONNAIRES:

- 9) Does the interest rate determining process is suitable in Nepalese CBs?
- VI. Strongly Disagree
 - VII. Disagree
 - VIII. Neutral
 - IX. Agree
 - X. Strongly Agree
- 10) What's the relationship of interest rate on deposit and deposit amount of CBs?
- vi. Highly Positive
 - vii. Positive
 - viii. No Relationship
 - ix. Negative
 - x. Highly Negative
- 11) What's the relationship of interest rate on lending and lending amount of CBs?
- vi. Highly Positive
 - vii. Positive
 - viii. No Relationship
 - ix. Negative
 - x. Highly Negative
- 12) Does the interest rate play a vital role in success of CBs than other factors?
- vi. Strongly Disagree
 - vii. Disagree
 - viii. Neutral
 - ix. Agree
 - x. Strongly Agree
- 13) How far the interest rate affects to deposit and lending of CBs?
- vi. Highly Affect
 - vii. Affect
 - viii. Moderately Affect
 - ix. Lowerly Affect
 - x. No Affect
- 14) Does the interest rate of CBs impact the inflation rate of Nepal?
- vi. Strongly Disagree
 - vii. Disagree
 - viii. Neutral

- ix. Agree
- x. Strongly Agree

15) What is the relationship of interest rate on deposit and interest rate on lending of CBs?

- vi. Highly Positive
- vii. Positive
- viii. No Relationship
- ix. Negative
- x. Highly Negative

16) Does the change in interest rate changes the Net profit of CBs?

- vi. Strongly Disagree
- vii. Disagree
- viii. Neutral
- ix. Agree
- x. Strongly Agree

Name (Optional):

Occupation:

Address:

Signature (Optional):

Date:

Thank you for your response, cooperation and participation with this research study