

CHAPTER I

INTRODUCTION

1.1 General Background of the Study

1.1.1 Historical Background

Keynes (1936) originally suggested three reasons for holding money balances (i) transaction motive: This refers to the balances required by households, governments and corporations to meet their day to day obligations, or to “bridge the interval between the receipt of income and its disbursement (ii) the precautionary motive : This refers to desire to hold money to meet unforeseen needs. Thus, both of these may be regarded as function of volume of transaction; and (iii) the speculative motive: This refers to use of money as part of investment strategy to avoid losses on securities when prices are expected to decline. (Edmister) It is an inverse function of rate of interest in the market and their uncertainty; i.e. when rate of interest increases, more cash is invested on earning asset and vice versa.

Irrespective of reasons for holding money, people feel the need of having an intermediary to handle their money safely and easily. This is how financial intermediations have come to function in the economy. The present structure of financial institutions is based on the foundation laid by commercial banks. In the ancient period, commercial banks were synonyms of financial institutions which performed the functions of money matters and financial jobs. Historical evidence shows that commercial banks served as primary means of intermediation.

The origin of the banking system is traceable to the ancient Assyrians, Babylonians and Atharsian, but the forerunners of modern banks are considered to be the bank of Vanice (1171), The Bank of Genoa (1320) and the Bank of Amesterdam (1609). Banking in America is strongly influenced by its heritage, even though banks have evolved into professionally managed and electronically connected money brokers (Hemple & Yawtidz)

1.1.2 Banking System in Nepal

In the overall development of the banking system in Nepal, the “Tejarath Adda” may be regarded as the father of modern banking institution and for a quite a long time it tendered a good service to government servants as well as to the general public (Pant,1975).

The concept of financial institutions in Nepal was introduced when the first commercial bank, The Nepal Bank Limited, was established in November 15, 1937 (Kartik 30, 1994), as a semi-government organization, without existence of a central bank in the country. It was established under special banking Act 1936 having elementary functions of a commercial bank. 62.21 per cent of the paid up capital of Nepal Bank Limited is owned by the government and 37.79 per cent owned by the public. Because of the non-existence of a central bank in the country, the commercial bank had to act as its own Central Bank, and keep enough resources in hand for meeting emergencies.

Later, on April 26th, 1956 (Baisakh 14, 2013), the first Central Bank, named as the ‘Nepal Rastra Bank’ was established with an objective of supervising, protecting and direction the functions of commercial banking activities.

Another commercial fully owned by the government, named as ‘Rashtriya Banijya Bank’ got established in January 23, 1966 (Magh 10, 2022). The establishment of joint venture banks gave a new horizon to the financial sector of the country. There are altogether seven joint venture banks in Nepal that aim to contribute to trade and commercial sector of the nation.

In 1963, a co-operative bank was established that was converted later into Agriculture Development Bank in 1967 to be the main financial institution for small rural agro industrial and co-operative sector. The ‘Land Reform Saving Corp’ was established in 1966. (Shrestha, 1995)

1.1.3 Current Scenario of Banking Industry

Financial system of Nepal is still in its developing stage. Small and fast growing financial sector comprises of commercial banks and other financial institutions like development banks, finance companies, co-operatives etc. So far, development of financial services in the country is uneven. In some regions of the country, fast and advanced banking services are available while other regions are fully deprived of banking services. But, comparatively, government banks have given more services in a lot of places of Nepal to the people than the private banks. At present there are altogether 28 commercial banks in Nepal. Commercial banks also called 'A' class bank of Nepal. Rastriya Banijya Bank is fully owned by Nepal

Government. The role of commercial banks in every nation of the world is in search of attaining the goal of rapid economic development. The ability of commercial bank to create credit and provide numerous banking services like deposit acceptance, overdraft facilities, market making, agency services, investment, E-banking services and general utility services is well appreciated by different sectors. Increase in the horizon of work area and entrance of new market, innovative product and services put the banks a step ahead. The foundation laid by two earlier banks i.e. Nepal Bank Limited and Rastriya Banijya Bank to save helped lure depositors to new banks. New joint venture banks and financial institutions were efficient and cost effective in every aspect, weather be the utilization of advance technology, skilled manpower and efficient training tools. This urged old government bank come up with same level of technology and energy to compete in the market gradually occupied by private sector bank. Today every institution is competing with each other for small amount of market share by providing different product, services and applying innovative marketing strategy. Technological advancement has equally supported banking business. More and more bank is entering the market with globally recognized customer friendly software which offers variety of facilities like debit and credit cards, SMS banking, various online services etc. However, the cost factor is always the matter of concern for every bank as current market itself is suffering from diminishing business. The size of our economy being comparatively small, the elasticity of the economy cannot go beyond certain level. That's why the given resources need to be utilized to the fullest. The principle of survival of the fittest seem to apply in Nepal, i.e. one standing at last wins the battle, in other words one which is able to use its competitive advantage over another eliminating the competitor survives in the market. The competitions among the banks have gone to the utmost level due to which the bank is operating at lesser profit margin.

1.2 Statement of the Problem

Nepal is economically backward country in the world having weak economy and financial dualism with weak and underdeveloped money and capital market. Nepal is the lack of capital formation and their proper mobilization. Nepal is a small and poor country even though she has sufficient natural resources. To utilize those resources, capital is required. Commercial banks gather monetary resources from different areas in the form of deposit and provides loan to investing areas like industry, agriculture etc. Banks provide facilities to their customer buy providing loans, remitting funds, purchase and sale of bills and other market information. These services helps to run the business and other economic activities rapidly as well as smoothly which ultimately helps economic development.

Interest is the price that one pays for utilizing a certain amount of money for a specific period of time. Interest can thus be considered a cost for one entity and income for another. Interest is the opportunity cost of keeping your money as cash under your mattress as opposed to lending. If you borrow money, then the interest you have to pay is less than the cost of forgoing the opportunity to have the money in the present. An interest rate is the cost of borrowing money without it, people would not be willing to lend or even save their cash. As the interest rate provides the price signal in the financial system, thus, it is important to all the participants the borrowers, the lenders, savers and investor. High interest rate encourages savings in greater volume and increases the lending activities of funds lower interest rate, in another hand discourages the savings and reduces the lending activities as well. Interest is the main factor in fund activities of commercial banks. Interest rate affects on the collection of deposits mobilization of saving position. Interest rate is one of the important terms in the lending decision process of commercial banks. There has been high tendency to transfer fund from less interest bearing bank to higher interest bearing ones while lower rated lending banks are seeing huge loan applications. The change in interest rates certainly has deep impact on the activities of the commercial banks. This study basically deals with such impacts of interest rate on the deposit mobilization. The main attempt of this study has been answered the following questions.

1. What is the impact of the interest rate on the mobilization of deposits?
2. What is the trend of deposit, investment and loan and advances?
3. What is the relationship of deposit with interest rate, investment and loan and advances?

1.3 Objectives of the Study

The main objective of this study is to know the overall influence of interest rate on deposit of commercial banks as well as to identify whether the interest rate spread is satisfactory or not. Besides this the other specific objectives related to this study are as given below.

1. To examine the impact of the interest rate on the mobilization of deposits.
2. To analyse the trend of deposit, investment and loan and advances.
3. To analyse the relationship of deposit with interest rate, investment and loan and advances.

1.4 Limitations of the Study

Every task has their own limitations they are:

1. Study is mainly based on secondary data which have been collected from websites, books, financial statements and reports.
2. This thesis has based on only five year's data of four commercial Banks i.e. Nepal Bank Limited Agriculture Development Bank Limited, Standard Chartered Bank Limited and Nabil Bank Limited.
3. If the moreover the study cover the information of only five year data from 2012 to 2017 which is available in its websites.

1.5 Significance of the Study

1. To know the interest rates, deposits and investments of last 5 years of these commercial banks.
2. To know how many times they changed their interest rates to encourage their customers.
3. By the help of this study, general public can know the interest rates offered by banks for deposits of the Nepalese commercial banks.
4. The study of interest rate and its impact on deposits would provide information to the management of concern banks that would be helpful to take corrective actions in the banking activities.
5. This study provides valuable information that is necessary for the management of the banks, shareholders, general public and related parties.

1.6 Organisation of the Study

This study has been organized into five chapters. Each chapter has its importance and deals with important aspect of the study.

Chapter I: Introduction

The first chapter presents the introduction of the study. It includes various aspects of present study like Background of the Study, Focus of the Study, statement of the problem, objective of the study, significance of the study and limitation of the study.

Chapter II: Review of Literature

The Second chapter presents review of literature including concepts of interest rate theories, factors affecting interest rates, relation of interest rate with deposit, investment with the study of related books, journal and thesis.

Chapter III: Research Methodology

The third chapter is research methodology which includes research design, nature and source of data, population and sampling of the study, methods and tools of analysis of data and at last definition of key terms.

Chapter IV: Presentation and Analysis of Data

The fourth chapter presents the data analysis and presentation. This chapter is the main aspect of the study. It deals with data collection procedure and presentation of data with different statistical and financial tools, and findings of the study.

Chapter V: Summary, Conclusion and Recommendation

The fifth chapter is summary, conclusion and recommendation. At the end of the chapter summary of whole study, conclusion and recommendation is made.

CHAPTER - II

REVIEW OF LITERATURE

Review of literature is an essential part of research studies. It is a way to discover what other research in the area of our problem has uncovered. A critical review of the literature helps the researcher to develop through understanding and insight into previous research works that relates to the present study. The purpose of reviewing the literature is to develop some expertise in one's area loose what new contribution can be made and to receive some ideas for developing a research design. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. From above it is clear that the purpose of literature review is to be finding out. What research has been conducted is one's chosen find of study and what remarks to be done. The review of literature provides basic foundations to this study. The various concepts employed in the study are, in fact derived from the different literature surveyed in this part. The review of these literatures has been described in three parts. This first part presents discussion on conceptual frameworks while the other two parts deal with review of literature in the international context and review of Nepalese studies.

2.1 Conceptual Review

Different authors have defined interest and deposit in different ways. A review of these definitions is important in order to have a better insight into this subject matter.

2.1.1 Interest Rate Theories

In financial markets there are numerous interest rates exists. These differences are due to the risk premium associated with the issuer. Even securities issued by the same borrowers often carry a variety of interest rates. In this section, we focus upon those basic forces that influence the level of

different interest rates. To uncover these basic rate determination forces, however, we must make a simplifying assumption. We assume in this chapter that there is one fundamental interest rate in the economy known as the pure or real rate of interest which is the component of all interest rates.

a. The Classical Theory of Interest Rate

One of the oldest theories concerning the determinants of the pure or risk free interest rate is the classical theory of interest rates, developed during the eighteenth and nineteenth centuries by a number of British economists and elaborate by Irving Fisher, (1930) and others more recently. The classical theory argues that the rate of interest is determined by two forces: (1) the supply of saving derived mainly from households and (2) the demand for investment capital coming mainly from the business sector. Let us examine these rates - determining forces of saving and investment demand in detail.

Saving by Households

What is the relationship between the rate of interest and the volume of savings in the economy? Most saving in modern industrialized economies is carried out by individuals and families. For these households saving is simply abstinence from consumption spending. Current savings therefore are equal to the difference between current income and current consumption expenditures. In making the decision on the timing and amount of saving to be done households typically consider several factors: the size of current and long-term income, the desired savings target and desired proportion of income to be set aside in the form of savings (i.e. the propensity to save). Generally the volume of household saving rises with income, Higher- income families with lower incomes. Although income levels probably dominate saving decisions, interest rates also play an important role. Interest rates affect an individual's choice between current consumption and saving for future consumption. The classical theory of interest assumes that individuals have a definite time preference for current enjoyment of goods and services over future enjoyment. Therefore; the only way to encourage an individual or family to consume now and save more is to offer a higher rate of interest rate on current savings. If more were saved in the current period at a higher rate of return, future consumption would be increased. For e.g. if the current rate of interest is 10% and a household saves Rs.100 instead of spending it on current consumption, it will be able to consume \$110 in goods and services a year from now.

Saving by Business Firms

Not only households but also businesses save. Most businesses hold savings balances in the form of retained earnings (as reflected in their equity of net worth accounts). In fact, the increase in retained earnings reported by businesses each year is a key measure of the volume of current businesses saving which supplies most of the money for annual investment spending by business firms. The critical element in determining the amount of businesses savings is the level of business profits. If profits are expected to rise, businesses will be able to draw more heavily on earnings retained in the firm and less heavily on the money and capital markets for investment funds. The demand for credit rises, and interest rates may rise as well. Although the principles determining of business saving is profits, interest rates also play a role in the decision of what proportion of current operating costs and long term investment expenditures should be financed internally and what proportion externally. 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 from the money and capital markets.

Saving by Government

Governments also save though usually less frequently than households and businesses. 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. Income flows in the economy (out of which government tax revenues arises) and the pacing of government spending programs are the dominant factors affecting government savings. Interest rates are probably not a key factor here.

The Demand for Investment Funds

Business, households, and government savings are important determinants of interest rates according to the classical theory of interest, but they are not the only ones. The other critical rate determining factor is investment spending most of it carried out by business firms. Certainly, businesses, as the leading investment sector in the economy, require huge amounts of funds each year to purchase equipment, machinery, and inventories, and to support the construction of new buildings and other physical facilities. The majority of business expenditures for those purposes consist of replacement investment; that is, expenditures to replace equipment and facilities that are wearing out or are technologically obsolete. A smaller but more dynamic form of business, Capital spending is labeled net investment; expenditures to acquire new equipment and facilities in order to increase output. The sum of replacement investment plus net investment equals gross investment. (Rose, Peter S., 2003, P.144)

b. The Liquidity Preference Theory of Interest

This theory was propounded by Keynes in his famous book, *The General Theory of Employment, Interest and Money*. This theory is also known as Keynesian theory of interest. The theory is based on following propositions:

- Interest is the reward for parting with liquidity for a specified period time.
- Interest rate is determined by the interaction between demand for money and supply of money.
- Interest is the purely monetary phenomenon.

Interest has been defined as a reward for parting with liquidity for a specified period. Money is the most liquid asset and people generally have liquidity preference for holding their wealth in the form of cash rather than in the form of interest or other income yielding assets. They can be persuaded to give up some part of their cash if adequate reward is paid in the form of interest. Thus, interest is the reward for inducing people to part with liquidity. The stronger the desire for liquidity the higher the rate of interest and weaker the desire for liquidity, lower the rate of interest. (Shrestha & Adhikari, 2008, P. 254)

c. The Loanable Fund Theory of Interest Rate

This theory was formulated by a Swedish economist Kunt Wicksell. Later, other Swedish economists like G. Myrdal, Lindahl and B Ohlin refined this theory. This theory is an improved version of the classical theory of interest. This theory is broader than the classical theory of interest because it takes into consideration both monetary as well as real factors in the determination of the rate of interest. According to this theory, interest is the price paid for the use of loanable funds. It asserts that the rate of interest is determined by the demand for and supply of loanable funds.

Assumptions of the loanable funds theory of interest:

- The market for loanable funds is a fully integrated market, characterized by perfect mobility of funds throughout the market.
- There is perfect competition in the market so that a single rate of interest prevails in the market.

- Flexible rate of interest is assumed so that it changes freely with the changes in the demand for and the supply of loanable funds.
- Full employment of resources is assumed, which implies constant levels of income & output.
- Money plays an active role in the determination of the rate of interest.

The force of demand and supply of loanable funds are explained as follows:

Demand for Loanable Funds: Demand for loanable funds arises for three purposes

- Investment demand (demand for investment purposes)
- Consumption demand or dis-saving (demand for consumption purposes)
- Demand for hoarding

a) Investment Demand: It is the main source of demand for loanable funds. Investment means real investment like making new capital goods including the building up of new inventories. The business firms or governments need funds to purchase raw materials, capital equipment or to build up inventories. Investment demand for loanable funds is interest elastic. It increases with a fall in the rate of interest and decreases with rise in the rate of interest.

b) Dis-saving: Another source of demand for loanable funds comes from dis-saving, i.e. consuming more than the current income affords. The consumers demand loanable funds for the purchase of durable consumer goods like cars, scooters, T.V. sets, etc. such borrowings are also interest elastic. The higher the rate of interest, the smaller the dis-saving or consumption demand and vice versa.

c) Hoarding: Loanable funds are also demanded for hoarding purposes. Hoarding means keeping wealth in liquid form or as idle cash. Cash can be easily converted into any form of wealth. Generally, people have a tendency to hold cash to satisfy their desire for liquidity. This is also interest elastic. A higher rate of interest of interest induces people to reduce their hoarding and lend more money while a low rate of interest induces people to hoard.

Supply of Loanable Funds; Supply of loanable funds comes from four sources.

- Saving

- Dishoarding
- Bank Money
- Disinvestment

Saving: Saving by households or business firms constitutes the major source of loanable funds. Saving is the part of income which is not spent on consumption. Saving depends upon two factors; one is size of income and another is rate of interest. The neo-classical theory assumed that the size of the income remains unchanged. So, saving are interest elastic. There is a positive relationship between the rate of interest and savings. Given the level of income, as the rate of interest raises the saving increases and vice versa.

Dishoarding: This is another source of loanable funds. Dishoarding means bringing out hoarding money and making it available for loanable purposes. It higher rates of interest people are induced to dishoard money and increases the loanable funds. At a low rate of interest, people tend to hoard money to satisfy the desire for liquidity and are discouraged from lending. Thus, there is a positive relationship between the rate of interest and dishoarding.

Bank Money: Bank money or bank credit is another source of the supply of loanable funds. Banks advance loans by creating credit. The money created by the banks adds to the supply loanable funds. The bank credit is also interest elastic. Banks tend to lend more funds at a higher rate of interest and less at a lower rate of interest.

Disinvestment: It is also an important source of the supply of loanable funds. Disinvestment means allowing the existing machinery to wear out without and being replaced, i.e. not provide the sufficient funds for depreciation, this happen when some firms are incurring losses. These firms withdraw their capital from business and lend if the marginal productivity of capital is lower than the market rate of interest. Thus, a part of firm's earning flows into the market for loanable funds instead of being kept in the depreciation for capital replacement. A higher rate of interest encourages disinvestment. (Shrestha & Adhikari, 2008, P. 250)

d. The Rational Expectation Theory of Interest

In recent years, a fourth major theory about the forces determining interest rates has appeared; the rational expectations theory of interest rates. This theory builds on a growing body of research

evidence that the money and capital markets are highly efficient institutions in digesting new information affecting interest rates and security prices. For example, when new information appears about investment, saving, or the money supply, investors begin immediately to translate that new information into decisions to borrow or lend funds. So, rapid is this process of the market digesting new information that asset prices and interest rates presumably impound the new data from virtually the moment they appear. This expectations theory assumes that businesses and individuals are rational agents who form expectations about the distribution 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. Rational agents attempt to make optimal use of the resources at their disposal to maximize their returns. Moreover, a rational agent will tend to make unbiased forecasts of future asset prices, interest rates, and other variables. That is, he or she will make no systematic forecasting errors and correct them quickly. If the money & capital markets are highly efficient in the way we have described, this implies that interest rates will always be very near their equilibrium levels. Any deviation from the equilibrium interest rate dictated by demand and supply forces will be almost instantly eliminated. Security traders who hope to consistently earn windfall profits from correctly guessing whether interest rates are "too high" (and therefore will probably fall) or are "too low" (and therefore will probably rise) are unlikely to be successful in the long-term. Interest rate fluctuations around equilibrium are likely to be random and momentary. Moreover, knowledge of past interest rates. For example, those that prevailed yesterday or last month will not be a reliable forecast of where those rates are likely to be in the future indeed, the rational expectations theory suggests that in the absence of new information the optimal forecast of next period's interest rate would probably be equal to the current period's interest rate (i.e. $E(r_{t+1})=r_t$) because there is no particular reason for next period's interest rate to be either higher or lower than today's interest rate until new information causes market participants to revise their expectations. Old news will not affect today's interest rates because those rates already have impounded the old news. Interest rates will change only if entirely new and unexpected information appears. For example, if the federal government announces for several weeks running that it must borrow an additional \$10 billion next month, interest rates probably increased at that time because many investors would view the government's additional need for credit as adding to other demands for credit in the economy and with the supply of funds unchanged, interest rates would be expected to rise. However, if the government merely repeated that same announcement again, interest rates probably would not change a second time; it would be old information already reflected in today's interest rates. Imagine a new scenario however. The government suddenly reveals that contrary to expectations, tax revenues are now being collected in greater amounts than first forecast and

therefore no new borrowing will be needed. Interest rates probably will fall immediately as market participants are forced to revise their borrowing and lending plans to deal with a new situation. How do we know which directions rates will move? Clearly the path interest rates take depends on what market participants expected to begin with. Thus, if market participants were expecting increased demand implies lower interest rates in the future. Similarly a market expectation of less credit demand in the future (supply unchanged) when confronted with an unexpected announcement of higher credit demand implies that interest rates will rise. (Rose, Peter S., 2003, P. 133)

e. Modern Theory of Interest Rate

This theory is propounded by Hicks and Hansen. The modern theory of interest is superior to the other theories of interest because it includes all the four factors; saving, investment, the demand for money and the supply of money in the determination of rate of interest. It considers both the monetary and non-monetary sectors (i.e. real sector) of the economy, while determining the rate of interest.

Hanses says " An equilibrium condition is reached, when the desired volume of cash balances equals the quantity of money, when the marginal efficiency of capital is equal to the rate of interest and finally, when the volume of investment is equal to the normal or desired volume of saving. And these factors are integrated."

To determine the rate of interest, the modern theory develops two curves; the IS curve and LM curve the former shows the equilibrium between the flow variables in the real sector while the latter shows the equilibrium between the stock – variables in the monetary sector. The point of interaction of these two curves establishes the equilibrium rate of interest at which both the real and the monetary sector of the economy are simultaneously in equilibrium. (Shrestha & Adhikari, 2008, P. 261)

2.1.2 Interest Rates in Financial System

The acts of saving and lending and the borrowing and investing activities within the financial system are significantly influence by the interest rate. The interest rate is the price paid for borrowing the scarce loanable funds from a lender for an agreed upon time period. In very general term, interest rate is the price paid for credit. But unlike other prices, in the economy, the interest rate is the ratio

of two quantities. So, it is computed dividing the cost of borrowed fund in rupees by the annual percentage basis. As the interest rate provides the price signal in the financial system, thus it is important to all the participants: higher interest rate encourages savings in greater volume and increases the lending activities of funds. Lower interest rate, in the other hand, discourages the savings and reduces the lending activities as well. Higher interest rate also means that it tends to reduce the volume of borrowing and capital investing spending. This force in the financial system actually, determine a rate that satisfy both savers/lenders and borrower/investor called equilibrium rate of interest.

2.1.3 Functions of Interest Rate in the Economy

The interest rate performs several important roles in order to functions properly the money and capital market in the economy. The major functions call lists:

- To generate adequate volume of savings to fund investment and thus to grow the economy.
- To direct the flow of credit in the economy toward those investment projects having greater expected rate of return.
- Brings into balance the supply of money with the public's demand for money.
- Acts as important tools to adopt government policy.

2.1.4 Determinants of Interest Rates

a. Supply and Demand

Interest rate levels are a factor of the supply and demand of credit an increase in the demand for credit will raise interest rates, while a decrease in the demand for credit will decrease them. Conversely, an increase in the supply of credit will reduce interest rates while a decrease in the supply of credit will increase them. The supply of credit is increased by an increase in the amount of money made available to borrowers. For example, when you open a bank account, you are actually lending money to the bank. Depending on the kind of account you open (a certificate of deposit will render a higher interest rate than a checking account, with which you have the ability to access the funds at anytime), the banks can use the money for its business and investment activities. In other words the bank can lend out that money to other customers. The more banks can lend, the more credit there is available to the economy. And as the supply of credit increases, the price of borrowing

interest decreases. Interest rate levels are a factor of the supply and demand of credit: an increase in the demand for credit available to the economy is decreased as lenders decide to defer the repayment of their loans. For instance, when you decide to postpone paying this month's credit card bill until next month or even later, you are not only increasing the amount of interest you will have to pay, but also decreasing the amount of credit available in the market. This in turn will increase the interest rates in the economy.

b. Inflation

Inflation will also affect interest rate levels. The higher the rate of inflation, the more interest rates are likely to rise. This occurs because lenders will demand higher interest rates as compensation for the increase in the decrease in the purchasing power of the money they will be repaid in the future.

c. Government

The government has a say in how interest rates are affected. The U.S. Federal Reserve often comes without announcements about how monetary policy will affect interest rates. The federal funds rate or the rate that institutions charge each other for extremely short term loans, affects the interest rate that banks set on the money they lend; the rate even eventually trickles down into other short-term lending rates. The Fed influences these rates by the use of "Open market transactions", which is basically the buying or selling of previously issued U.S. securities. When the government buys more securities, banks are injected with more money than they can use for lending and the interest rates then decreases.

2.2 Concept of Deposit

Deposit is nothing more than the assets of an individual which is given to the bank for safe keeping with an obligation to get something from it. To a bank these deposits are liabilities. Commercial bank act 2031 defines "Deposits" as the amount deposited in a current, savings or fixed accounts of a bank or financial institution. The deposits are subject to withdraw by means of cheque on a short notice by customers. The rate of interest rate 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. Though the bank plays an important role in influencing the customer to save and open deposit accounts with it, it is ultimately the customer who decides whether s/he should deposits his/her surplus funds in current deposit a/c, saving deposits or fixed/time deposit a/c. Bank deposits

arise in two ways. When the banker receives cash, it credits the customer's account, it is known as a primary or a simple deposit.

2.2.1 Types of Deposit

There are different types of deposits. But for this study, major three types of deposits are taken. They are:

1. Demand Deposit

It is the type of deposit that can be withdrawn on demand at anytime or any amount up to full amount of deposit. Current account, money orders and traveler's cheque are examples of demand deposit. Customers having high number of financial transactions use this type of deposit. Characteristics of demand deposits are as follows:

- Accountholders can do unlimited no. of transactions any time.
- Normally, this type of account doesn't generate or earn any interest except where it is specially permitted by the central bank.
- Accountholder are given facility of overdraft if it is required after agreement with the bank.
- Accountholders are allowed to send cheque and note for collection from different locations.
- If account only holds minimum balance, the bank can charge balance as handling charge.

It is classified into two categories:

a. Non-Interest Bearing Demand Deposit

This type of demand deposit provides customer-oriented services, but interest payments are prohibited. Current accounts are created by this kind of deposit, which are also called checking accounts in the United States.

Demand deposit can be withdrawn without any pre-information, so are non-interest funds of banks. But, today's bank is providing accounts with interest and nature of current accounts, so customers are attracted towards such deposits.

b. Interest Bearing Demand Deposit

Demand deposit, which provides customer with payment services, safekeeping funds and record keeping for any transactions, carried out by cheques as well as interest. It is also being called negotiable order of withdrawal (NOW) account. NOWs are interest bearing demand deposit that gives the bank the right to insist on prior notice before withdrawals by customers but because this notice requirement is rarely exercised. It is behaved as checking account with interest. It is also called money market demand deposit account and interest bearing thrift account.

2. Saving Deposit

According to commercial Bank Act 2031 (1974) saving account means."An account of amounts deposited in a bank for saving 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 minimum compensating balance differ according to the banks rule. Similarly, there is also divergence as to how much amount of money can be withdrawn, But if the customer wants to withdraw more money from the information to the banks. S/he can withdraw more money. The bank fixes the minimum and maximum amount of bank goes into liquidation, priorities given to the saving deposit than current and fixed deposit holders while repaying the liabilities.

3. Fixed Deposit

Fixed deposits constitute a very important resource for banks as bank need not keep greater reserve in impact of such deposits. Under the commercial banks Act 2031(1974),"Fixed amount means as account of amounts deposited in bank for certain period of time". The customers opening such account deposited their money in the account for a fixed period. Usually, only the person or institution who wants to gain more deposit as compare to saving deposits. The bank and the customer can take benefit from this deposit. The bank invests this money on the productive sector and gains profit and the customer to can be made his financial transactions stronger by getting more interest from this deposit. The principal amount with interest must be returned to the customer after expiry of fixed time.

4. Call Deposit

It is the type of deposit between current and saving deposit. This type of deposit earns interest as well as can be withdrawn at call. The profit-oriented organization can't open saving accounts, so this call account can be good alternative. Interest rates are not published for this deposit generally. So, it is compromised between bank and depositor. Interest is calculated in daily balance.

5. Recurring Deposit

Recurring deposit is developed to generate saving from public in regular basis. In this deposit, depositor has to deposit fixed amount of installments for specific period and bank refers total amount of principal and interest at maturity.

6. Margin Deposit

Bank issues letter of credit, Guarantee and Indemnity on behalf of customer for certain money. These are amounts to be paid to the beneficiaries. This action is conditionally liability for bank. Bank demands certain money as deposit to reduce liability. This deposit is called margin deposit. It may vary under mutual understanding. Interest is not paid under such deposit and these deposits are returned to customer, unless any claims by beneficiaries.

2.2.2 Importance of Deposit

Deposit arises from saving. An individual's income equals consumption plus saving. She deposits the saved part of income in the bank and gets interest from it. Banks in turn lend this money and earn profit by charging high interest rates. The borrowers from banks invest this fund in productive sectors yielding more return than the interest on borrowed fund. This investment leads to create new employment opportunity in the economy. Ultimately due to new employment the purchasing power of the economy increases and finally GDP and growth of the economy occurs. It means that the deposit has a very important role in the economy. There is a direct relationship between deposit of banks and the investment in the economy. If the volume of deposit is low, the investment in the economy also lags behind due to lack of resources. The deposit of bank is the accumulated capital which can directly be invested. There is a greater need of such deposit in the developing countries.

2.2.3 Deposit Mobilization

Collection scattered amount of capital and investing the deposited fund in productive sector to increase the income of the depositors is meant deposit mobilization. In other word, investing the collection fund in the productive sectors and increasing the income of the depositors, it also supports to increase the saving through the investment of increased extra amount. The main objective of deposit mobilization is to convert idle saving into live saving. In developing countries shortage of capital is the main problem for the developmental activities. Development is needed in the entire sector. It is not to handle and develop all the sectors by the government alone at time. People also cannot undertake large business because the per capital income of the people is very low while their propensity to consume is very high. To the low income their saving is very low and capital formation is also low. So, their saving is not sufficient for carrying on development works. To achieve the higher rate of growth and per capital income, economic development should be accelerating. Economic development may be defined in a broad sense as a process of rising income per head through the accumulation capital. But, how capital can be accumulating in the developing countries? In context on Nepal, commercial banks are the main financial institution which play very important role in the resource mobilization for the economic development in the country. Therefore, banks should mobilize its deposit in suitable and profitable banking activities and right sector. Generally, Bank has mobilized its deposits in the following activities.

a. Liquid Funds

A bank has kept a volume of amount in liquid funds. The funds have so many responsibilities in banking activities liquid funds has covered following transactions.

- Cash in hand
- Balance with NRB
- Balance with domestic bank
- Call money

b. Investment

Bank invests its fund in different banking activities and different fields. Many types of fields are available in market for investment. But bank invest its fund in profitable and safely activities. Bank invests its funds in the following titles:

- Share and debenture
- Government securities
- Joint-venture

c. Loan and Advances

Banks mobilize its funds or deposits by providing different types of loan and advances to customers, by charging fixed interest. Bank manages the different types of loan i.e. providing loan, business loan and traditional loan to priority area.

d. Fixed Assets

Land and Buildings are essential for the establishment of bank. Bank's funds are used in buying of furniture, vehicle, computer and other concerned instrument which are related to banking activities. Bank cannot take direct gain from these assets. But bank should buy it. A bank has a need of fund to purchase fixed assets for the new branches of the bank.

e. Administrative and Miscellaneous Expenses

Bank should manage funds for administrative and other miscellaneous expenses. The administrative expenses are:

- Salary of employee
- Allowances
- Pension
- Advertisement
- Provident fund
- Rent
- Income tax
- Donation
- Insurance

- Commission
- Tour expenses

The miscellaneous expenses are

- To distribute the dividend to shareholders
- To bear the loss on sale and purchase of banking assets
- Maintenance expenses
- To pay the interest expenses on borrowed amount
- Reserved fund

In this way, bank mobilizes its deposits by performing different activities to achieve its desired goals i.e. earning profit. Banks are able to earn sufficient profit by mobilizing its deposits in proper way into the different profitable sector. It can utilize its collected deposits as well as funds in all banking activities by performing effective deposit mobilization procedure.

2.2.4. Need for Deposit Mobilization

The following are some reasons for why deposit mobilization is needed in developing countries like Nepal. The following points show the need for deposit mobilization.

- Capital is needed for the development of any sector of the country. The objective of deposit mobilization is to collect the scattered capital in different form within the country
- The need of deposit mobilization is felt to control unnecessary expenditure. If there is no saving, the extra money that the people have can flow forwards buying unnecessary and luxury goods. So, the government also should help to collect more deposit, sleeping legal procedure to control unnecessary expenditures.
- Commercial banks are playing a vital role for national development. Deposit mobilization is necessary to increase their activities. Commercial banks are granting loans not only in productive sectors, but also in other sectors like food, grains, gold and silver etc. Though these loans are traditional in nature and are not helpful to increase productivity, but it helps, to some extent, to mobilize bank deposit.

Deposit mobilization plays a vital role for the economic development of an underdeveloped and developing country rather than developed one. It is because a developed country doesn't feel the need of deposit mobilization for capital formation due to developed capital markets in every sector. But, in an under developed country and developing country, deposit mobilization plays an immense role in such countries. Low national income, low per capital income, lack of technical knowledge, vicious cycle of poverty, lack of irrigation and fertilizer, pressure of population increase, geographical condition and fertilizer, pressure of population increases, geographical condition etc are the main problems of developing countries like Nepal. Again, instead of the development of a particular sector, the development of every sector on side and to accumulate the scattered and unproductive sectors deposit on the other is the felt need of and under developed country. We can take this in our country's present context.

2.2.5 Factors Affecting Deposit Mobilization

There are various factors like money, supply inflation other financial instruments and interest rate and branch expansion which affect deposit collection. These factors should be considered while making the policies regarding deposit mobilization, among all these factors, only interest rate and branch expansion has taken for the study.

a) Interest Rate

For the commercial banks, interest rate refers the amount paid on deposit. The main objective of the interest rate on deposit is to attract the scattered savings. Therefore, the proper interest rate plays vital role for collecting deposits. According to the neo-classical monetary theory interest rate is a factor, which brings demand for investment and willingness to save into equilibrium with each other. Investment represents the demand for resources and saving represents the supply. While interest is the price of resources, at which two are equated. Interest is an important factor to mobilize savings. In this sense, interest rate, it is interesting to not some conflicting agreements of two groups. The classical idea was interest rate was the reward for not spending i.e. it is the inducement to refrain for not spending. In opponent contrast, the Keynesian doctrine is that interest is the reward for not boarding i.e. it is the inducement to part with liquidity.

b) Branch Expansion

To build up a financial infrastructure geographically and functionally diverse to help in the resource mobilization to meet the expanding and emerging needs of developing economy. It has been also felt that timely and adequate credit support should be made available for the sector, which hitherto be neglected, so that the system reached out to the small town and the rural and semi urban area. For this purpose, the extension of geographical spread of banking was given prime importance. It acted as an instrument of deposit mobilization on was given prime importance. It acted as an instrument of deposit mobilization on the one hand and provision of credit to the rural hinterland of the economy on the other. The larger number of people of that country saves more money. (Bhandari, 2013, P.30-40)

2.3 Reviews from Relevant Studies

In this part a review of past studies are conducted by other researchers which are relevant to the topic.

2.3.1 Review of Books

Sharma and Ghosal (1965), in their book "Economic Growth and Commercial Banking in the Development of Economy" states that insurance of bank deposits, creation of proper atmosphere can increase deposits and the development of capital markets with the help of banks will prove effective in mobilizing the available floating resources in the country.

Keynes (1936), in his book, "The General Theory of Employment, Interest and Money", has mentioned the following the viewpoints about the rate of interest. According to him, community's liquidity preferences and quantity of money determine the level and rate of interest. These three things liquidity preferences, quantity of money and rate of interest are negatively correlated. At low rate of interest, the liquidity preference of community is high and it is low at high rate of interest.

According to the modern view, interest rate determination depends upon the investment, saving, liquidity preferences and supply of money. This view is a combination of previous theories. It has expressed both monetary and non-monetary factors. In this opinion, the marginal efficiency of capital to the rate of interest and investment is equal to the desired volume of saving. Thus the Total investment=Total Saving or $I=S$.

Where,

I=investment and

S=Savings.

Keynes in his argument said, Interest directly form from the supply and demand of money itself rather than the use of money. Liquidity is the unique characteristics of money itself rather than the use of money to hold liquidity preferences. It is this, which requires the payment of interest. The marginal efficiency of capital determines the degree of liquidity preferences and the rate of investment and interest there on.

The views of some economists on interest rates differ. According to these few, the interest rate is a major determinant and also traced out the time preference in the determination of interest rate. So, the interest rate must be taken as an important factor of economic policies of developing or less developed countries.

Classical economists have their own say that interest rate depend upon the level of saving and the demand for real investment interest is that point where both the amount of saving and demand of investment are equal.

According to Neo-classical economists, demand and supply, factors are important in the determination of interest rate structure. The supply of loanable fund is composed of real saving and credit money and demand of the loanable found is composed of the demand for the investment funds. The interplay monetary and non-monetary forces determine the rate of interest.

Deveet (2001), in his book, "Modern Economic Theory", mentioned Loanable funds theory of interest. The loanable funds theories believed in time preference explanation of how interest arises. According to loanable funds theory, the interest is the price paid for the use of loanable funds. Like the classical and Keynesian Theories of Interest, it is also a demand and supply theory. It asserts that rate of interest is determined by the equilibrium between demand and supply of loanable funds in the credit market. There are several sources of both supply and demand of loanable funds which we discuss below.

Supply of loanable funds:

The supply of loanable funds is derived from four basic sources, namely:

1.Saving: Saving by individuals or household constitutes the most important source of loanable funds. Any individual's and household's savings primarily depend upon the size of their income. But, given the level of income, savings vary at various rate of interest. More savings will be forthcoming at highest rate of interest and vice-versa.

2.Bank Credit: Another source of loanable funds is the banking system. Banks can create money and advance them to businessman as loans. By contracting their lending, the banks can also reduce their amount of money. The bank's newly created money in a period, greatly adds to the supply of loan funds. The supply curve provided the banks are to some degree interest elastic. It varies with various rate of interest.

3.Dishoarding: Labeled as another source of loanable funds, individuals may dishoard money form a hoarded stock, of a previous period. More stock will be dishoarded at higher rate of interest. Cash balances, lying idle in the past period can become active balances in the present period and are available as loanable funds.

4.Dis-investments: They are considered to be the opposite of investment. This happens due to structural changes or bad ventures and the existing stock of machines and other equipment is allowed to wear out without being replaced or the inventories are drawn below the level of previous period. When this happens a part of the revenue from the sale of products, instead of going into capital replacement, flows into the market for loanable funds.

Demand for Loanable Funds:

The demands for loanable funds come mainly from three fields:

1.Investments: This is the most important constituent of the total demand for loanable funds. The interest serves as the price of the loanable funds required to purchase the capital good. The demand for the loanable funds obviously is the rate of interest elastic.

2.Hoarding: Those people who want to hoard money may make a demand for the loanable funds. It serves to satisfy their liquidity preferences. Hoarding signifies the people's desire to hold their savings as idle cash balances. The demand for hoarding money is "interest elastic". At a higher rate of interest, people will hold less money because much of the money will be lent to take advantage of the higher interest rates.

3.Consumption: Consumption serves the purpose of the second biggest demand for the loanable funds. Individuals or households want to borrow and demand loanable funds when they wish to make purchase in excess of their current incomes and cash resources.

2.3.2 Review of Journals Articles

In this subject, effort has been made to examine and review of some of the related articles published in different economic journals, bulletins of World Bank, dissertation papers, newspapers, researchers view and findings toward fund mobilization and other related books.

Pradhan (2000) in his article "Deposit Mobilization, its problem and prospectus" has presented that deposit is the life-blood of every financial institution like commercial bank, finance company, co-operative or non-government organization. He further adds in consideration of most of banks and finance companies, the latest figure does produce a strong feeling that serious review must be made of problems and prospectus of deposit sector.

The writer has highlighted following problems of Deposit Mobilization in Nepalese context:

- Most of the Nepalese do not go for saving in institutional manner, due to the lack of good knowledge however, they are very much used of saving be it in the form of cash or ornaments.
- No more mobilization and improvement of the employment of deposits and loan sectors.
- Unavailability of the institutional services in rural areas.

The writer has also recommended for the prosperity of deposit mobilization which are as follows:

- By cultivating the habit of using rural banking unit.

- By providing sufficient institutional services in the rural areas.
- By spreading sufficient co-operating to the rural areas of developing mini branch services.
- By adding service hour system to bank.
- Nepal Rastra Bank could also organize training program to develop skilled manpower.

Sharma (2000), in his article entitled, "Banking the future on competition" found that all the commercial banks are establishing and operating in urban area, his achievements are:

- Commercial banks are charging the higher rate of interest on lending.
- Commercial banks are establishing and providing their services in urban areas only. They have not interested to establish in rural areas. Only Rastriya Banijya Bank and Nepal Bank Ltd. Have branches in rural areas.
- They do not properly analyze the credit system. The researcher further states that private commercial banks have mushroomed only in urban areas where large volume of banking transaction and activities are possible.

2.3.3 Review of Theses

Before this study, various studies regarding the various aspects of commercial banks such as deposit mobilizing policy, financial performance and investment policy, lending policy, interest rate structure, resource mobilization and capital structure has conducted several thesis works. Some of them, which are relevant for this study, are presented below.

Tandukar (2008), in thesis titled "The Role of NRB in Deposit Mobilization of Commercial Bank" has tried to find out the relation between Nepal Rastra Bank and commercial Banks of Nepal. The directives issued by NRB have both positive and negative impact on these commercial banks. A sound investment policy containing a portfolio will guarantee long term survival of a commercial bank. More, she focuses on importance of bank in country's economy. It is source of capital formation she has drawn the conclusion that all new directives of NRB on commercial banks are effective and it is good for both nation and the future of the banks but the loan classification and provisioning seems to be little bit uncomfortable to the commercial banks. She had recommended

the banks to minimize the bad loans ratio, creating the conducive environment for the revival of sick investment, formulate future strategies to solve problems.

Khatri (2009), in thesis entitled "Impact of interest rates on deposit mobilization of commercial banks of Nepal" with the main objective of:

- To present the impacts of interest rate on deposit mobilization of commercial banks.
- To see the impact of interest rates of deposit on the deposit collected by the commercial banks.
- To see deposit-credit margin ration throughout the changed incurred in the interest rate by which one can see that how far the deposits have efficiently utilized.

This study concern only a period of five years from the year ended 2007 to 2012. Only secondary data has analyzed. Simple analytical statistical tools such as graph, percentage, Karl Pearson's coefficient of correlation and the method of least square methods are adopted in this study. Similarly, some strong according tools such as ratio analysis have also been used for financial analysis.

The writer found that the overall performances of commercial banks are satisfactory and Nepal Rastra Bank has to play more active role to enhance the operation. Liquidity position of the commercial banks has satisfactory. The interest rate has played important role in deposit mobilization of the bank .So; the structure of interest rate should be changed according to the need to nation.

Pokhrel (2007), on the "Interest rate structure and its relation with deposit, lending and inflation in Nepal" concludes:

- The interest rate on both deposit and lending of all sample banks are in decreasing trend.
- The saving deposit amount and saving interest rate have negative relationship.
- Fixed deposit amount and fixed interest rate shows negative relationship.
- One of the variables that affect the demand of fund (lending activity) is lending interest rate.
- The relationship between interest rate on deposit and inflation rate is positive.

- The interest rate on lending and inflation rate has low degree of positive correlation coefficient.

Bhandari (2013), on thesis entitled "Interest rate and its impact on deposit mobilization of commercial banks." With the main objective of this study is to know the overall influence of interest rate on deposit of commercial banks as well as to identify whether the interest rate spread is satisfactory or not.

Besides this the other specific objectives related to this study are as given below.

- To examine the impact of the interest rate on the mobilization of deposits.
- To analyze the trend of deposits, investments and loans and advances.
- To analyze the relationship of deposit with interest rate, investment and loan and advances.
- To examine the interest rate spread.

Bhandari, (2014) conducted his master's thesis 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 cast a glance at the historical background of interest rate structure of commercial banks, policies, decision and strategies regarding it and their impact.
- b. To present and analysis interest rate structure of commercial banks in different period.
- c. 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. The most of data and information and data have been collected from discussion and interviews, both the financial and technical tools are used to 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 liberalization of the interest on August 31st 1989, but how ever 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 rate helps to increase the profitability through increasing the credit.
- c. Deposit is more interest rate conscious and positively co-related .
- d. Loan and advance of Commercial banks have been found to be continuously increasing with the decline interest rates.
- e. Effective interest rates structure helps in proper utilization of resources as measured by loan and deposit ratio.

Shrestha, (2016) in his Study, "A comparative analysis of financial performance of the selected commercial banks". Concluded that many of banks are of the view that political instability in the country is mainly responsible for the decline of the lending opportunity, few banks ascribed it to the economic crisis that occurred in Asia pacific region. No one helped that higher rates on interest on lending to be major factor. At the same time should target not only the urban sector. It should go to the rural sector also. They have to explore all the potential sectors like tourism etc. In order to generate high rate of profits.

2.4 Research Gap

Previous researchers covered all the commercial banks and some were either on case study between two commercial banks or some were on the particular bank branch. But, this study focused on some particular sample bank i.e government banks and private banks. This study covers the recent and an updated data of all the sample banks. Moreover, this study has not been done by previous researcher as separately. Thus, to fill the gap, this study had been conducted.

CHAPTER - III

RESEARCH METHODOLOGY

3.1. Research Design

To achieve the objective of this study descriptive design has been used. Statistical and financial tools have also been applied to examine facts. Descriptive technique has been adopted to evaluate the impact of interest rate on the performance of the bank.

3.2.Sources of Data

This study is based on secondary data.

Secondary data has been used to higher extent due to time constraints and other important unreachable factors.

Nepal Rastra Bank, Nepal Bank Limited, Agriculture Development Bank Limited, Standard Chartered Bank Limited and Nabil Bank Limited bulletin has been used as a secondary source.

All the secondary data are compiled, processed and tabulated in time series. A Formal and informal talks to the concern member of the department of the bank has been used to obtain additional information on the related problem.

Likewise, data and information are collected from the periodicals, economic journal, magazines, and other published and unpublished reports. Documents from various sources have also been used.

3.3. Population and Sample

There are 28 commercial banks whose stocks are traded actively in stock market of Nepal. The impact of interest on the performance of four banks has been studied, as it is impossible to study all the data related with all commercial banks of Nepal. Convenience sample was used to select the following four banks.

Sample Banks

1. Nepal Bank Limited
2. Agricultural Development Bank Limited
3. Standard Chartered Bank Limited
4. Nabil Bank Limited

3.4. Method of Analysis

To achieve the objectives of the study various financial, statistical and accounting tools has been used. Analysis of the data has been done according to the pattern of the available data. Collected data has been brought under statistical scrutiny after the raw data is edited, coded and tabulated. Data has been analyzed in descriptive form interpreting each part systematically so that each individual is able to understand as per their need.

The data collected from different sources has gone through two different approaches:

- a) Financial Tools
- b) Statistical Tools

Simple growth pattern and highly sophisticated tool like ratio analysis has been used under financial tools.

a) Financial Tools

The following ratios have been used to evaluate the performance of the banks.

1. Loan and advances to Total Deposit Ratio
2. Total Investment to Total Deposit Ratio
3. Interest Expenses on Total Deposit & Borrowing Ratio
4. Interest Income on Loan & Advances Ratio

b) Statistical Tools

1. Arithmetic Mean (\bar{X})

Arithmetic mean is a given set of observation is their sum divided by the number of observation. In such case all items are equally important. It depicts the characteristic of whole group. It is an envoy of the entire mass of homogeneous data. Generally the average value lies somewhere in between the extremes i.e. the largest and the smallest items. Generally mean indicates the measure of the middle of the set and. In other words, it is just the sum of all the observations divided by the number of observations. During analysis, mean have been used as synonyms to equal weighted mean. It is calculated as follows:

$$\overline{(X)} = \frac{\sum X}{N}$$

Where,

$\sum X$ = Sum of the sizes of items

N = Number of items

2. Standard deviation (σ)

Karl Pearson first introduced the concept of standard deviation in 1983. Standard deviation is the positive square root of the arithmetic average of the squares of all deviation measured from the arithmetic average of the series. The standard deviation measures the absolute dispersion of a distribution. Standard deviation is an important and widely used measure of dispersion. The greater the amount of dispersion is the greater the standard deviation. The greater the standard deviation greater will be the magnitude of the value from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. Standard deviation is denoted by a Greek Letter ' σ ' (sigma) and is calculated as follows.

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum X^2}{N} - \left(\frac{\sum X}{N}\right)^2}$$

Where,

$\sum X$ = Sum of the sizes of items

N = Number of items

3. Coefficient of Variation (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 (C.V.). If $\overline{(X)}$ be the arithmetic mean and (σ) be the standard deviation of the distribution, then the C.V. is defined by

$$C.V. = \frac{\sigma}{\overline{X}} \times 100$$

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

4. Correlation Coefficient (r)

The correlation analysis is the technique used to measure the closeness of the relationship between the variables. It helps in determining the degree of relationship between two or more variables. It describes not only the magnitude of correlation but also its direction. The coefficient of correlation is a number which indicates to what extent two variables are related with each other and to what extent variables is one leads to the variation in the other.

Correlation may be positive or negative which lies between ± 1 . Simple correlation between interest rate on deposit and deposit amount is computed in this thesis. The correlation between interest rate on deposit and deposit amount is positive. 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 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 0.6999 there is a moderate degree of correlation.

The correlation coefficient can be calculated as:

$$r_{12} = \frac{n\sum X_1X_2 - \sum X_1\sum X_2}{\sqrt{n\sum X_1^2 - (\sum X_1)^2} \sqrt{n\sum X_2^2 - (\sum X_2)^2}}$$

Where,

n = no. of observation

X1 = Dependent Variable

X2 = Independent Variable

5. Coefficient of Determination (r^2)

The coefficient of determination is the primary way to measure the extent or strength of the association that exists between two variables X_1 and X_2 . It refers to measure at the total variance in a dependant variable that is explained by its linear relationship to and independent variance. The coefficient of determination is denoted by r^2 and the value lies between zero and infinity. The close to infinity means greater the explanatory power. A value or one can occur only is the in explained diagram falls exactly on the regression line. The r^2 is always a positive number. It can't tell whatever 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.

Coefficient of determination $(r^2_{12}) = (r_{12})^2$

6. Trend Analysis

The term “trend analysis” refers to the concept of collecting information and attempting to spot a pattern, or trend, in the information. Forecasting is an essential tool in any decision-making. Trend analysis is adopted to ascertain future. The trend analysis is taken as a tool to forecast the future position of commercial banks. The equation used to obtain the trend values is:

$$Y = a + bx \dots\dots\dots (i)$$

Where,

Y = dependent variable

x = independent variable

a = intercept of the line

b = slope of the trend line

The values of the constants a and b can be determined by using following formulas

$$a = \frac{\sum y}{N} , \quad b = \frac{\sum xy}{\sum x^2}$$

Variables

Variables are characteristics of person, things, groups; object etc. a variable is thus a symbol to which numerals are assigned. In other words, a variable can take on many values. Interest rate, investment, deposit and loan and advances are variables under study.

a. Dependent Variable

A variable is called dependent variable if its values depend upon the other variables. The researcher's purpose is to study, analyse and predict the variability in the dependent variable.

Here dependent variables are:

- Deposit
- Investment &
- Loan and Advances

b. Independent Variable

A variable is called independent variable if its value is not influenced by any other variable under study. Any change in the independent variable either positive or negative, leads to change in the dependent variable. Thus, the independent variables are those, which are used as the basis of prediction and the dependent variable is the variable that is being predicted. Here independent variables are different fiscal years ,Interest rate.

Interest Rate Spread

Interest rate spread is the difference in interest rate between lending and deposit rate. Interest rate spread will be calculated using the following formulae:

Interest rate spread =

$$\frac{\text{Rupees of interest earned}}{\text{Rupees amount of interest earning assets}} - \frac{\text{Rupees of interest paid dividend}}{\text{Rupees amount of interest costing liabilities}}$$

Interest rate spread will be calculated using weighted interest rate spread between lending rate and deposit rate of the commercial banks.

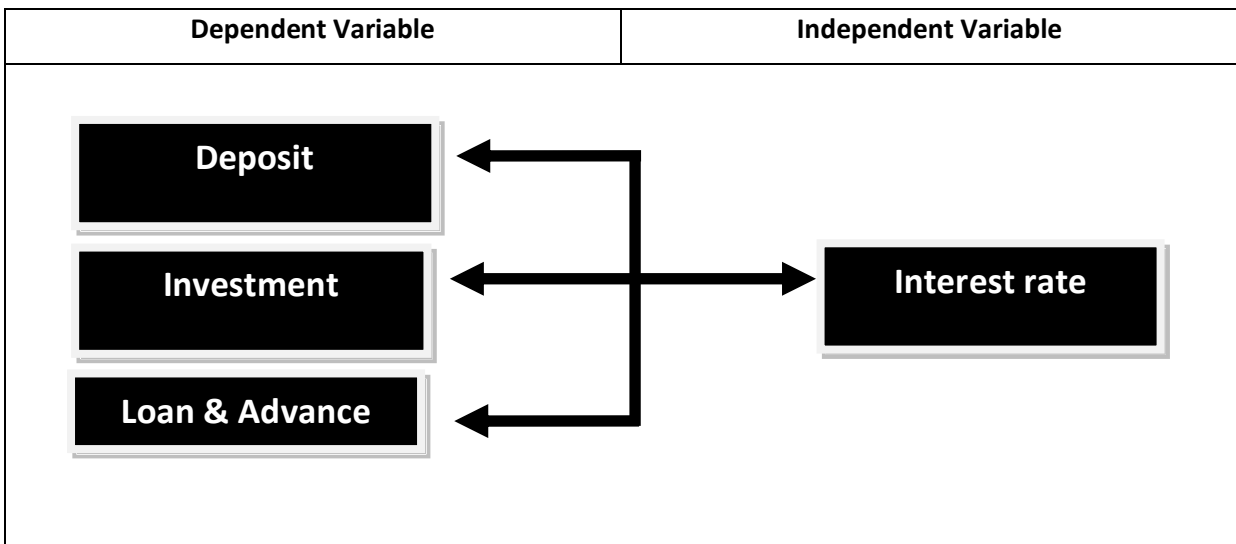
WALR = Weighted Average Lending Rate

WADR = Weighted Average Deposit Rate

3.5 Conceptual Framework of the study

A conceptual framework is use to limit the scope of the relevant by focusing on specific variables and defining specific viewpoint that the research will take in analysing and interpreting the data to be gathered it also facilitates the understanding of concepts and variables accounting to given definition and builds new knowledge by validating a challenging theoretical assumptions.

The present study will include the following variables



CHAPTER IV

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

In this section, all the collected data are presented in the filtered from and are analyzed thoroughly. This is the one of the major chapter of this study because it includes detail analysis and interpretation of data from which concrete result of Nepalese market can be obtained. In this chapter the relevant data and information necessary for the study presented and analyzed keeping the objectives set in mind. This chapter consists of various calculations made for the analysis and its

effects on deposit of sample bank. This chapter consists of detail analysis and interpretation of data relating to interest rate on deposit, deposit collection amount of each selected organization from Nepalese financial system. This chapter is categorized in three parts presentation, analysis and interpretation. The analysis is based on secondary data. In presentation section data are presented in terms of table, graph chart of figures, according to need. The presented data are then analyzed using different statistical tools which are mentioned in chapter three. At last the results of analysis are interpreted. For our simplicity, in this thesis, presentation, analysis and interpretation of data are made according to the nature. After then, the relationship between interest rate and deposit amount is made. In the previous chapters, we discussed about the impact of interest rates on funds mobilization of commercial banks, historical background of interest rate and NRB's policies regarding it. Likewise in second chapter we discussed about the previous studies through literature review and in the subsequent chapter, we presented the methods that have been used to analyze the information. This chapter is the heart of the study. This chapter consists of relevant data and information necessary for the study. In this chapter the analysis part is presented in detail. This chapter is mainly concerned with the presentation of collected data in suitable tables and diagrams as well as the analysis and presentation of these collected data in a suitable manner using various statistical and financial tools. Different types of ratios have been calculated to reach in the conclusion of the study.

4.2 Analysis of Deposit and Interest Rate Position

In this section, detail study is made about deposit amount and interest rate of sample banks. Deposit is that amount which is deposited by savers in commercial banks of other financial institutions for safe keeping as well as for earning the interest from it. Deposits are the main sources of resources to meet growing demands of financial existence. The existence of commercial banks basically depends upon the mobilization of deposits. Higher the volume of deposit, higher will be the volume of profit.

So, a commercial bank first of all tries to mobilize as much deposit as possible. One of the main objectives of commercial bank is to safeguard the amount deposited by the general deposits on its mobilization in an effective manner. The following tables and figures show the situation of commercial banks in relation to deposit collection and its utilization in the recent years.

4.2.1 Deposit and Interest Rate Position of NBL

The following table shows the interest rate and amount of deposit collection by Nepal Bank Ltd. throughout the study period of 2012/2013 to 2016/2017. The table also presents the percentage change in deposit amount of NBL during the study period.

Table: 1

Deposit & Interest Rate position of NBL

Fiscal Year	Deposit Amount (Rs. in Millions)	Change (%)	Interest Rate (%)
2012/2013	62984.35	-	7.32
2013/2014	69337.61	10.09	5.64
2014/2015	77998.77	12.49	5.18
2015/2016	89410.02	14.63	4.96
2016/2017	93944.01	5.07	4.8

Source: Annual Reports of NBL (2012/13 to 2016/17)

4.2.2 Deposit and Interest Rate Position of ADBL

The following table shows the interest rate and amount of deposit collection by Agriculture Development Bank Ltd. throughout the study period of 2012/2013 to 2016/2017. The table also presents the percentage change in deposit amount of ADBL during the study period.

Table: 2

Deposit & Interest Rate position of ADBL

Fiscal Year	Deposit Amount (Rs. in Millions)	Change (%)	Interest Rate (%)
2012/2013	54477.65	-	7.17
2013/2014	65898.41	20.96	6.24
2014/2015	77035.06	16.90	7.97
2015/2016	87387.15	13.44	7.15
2016/2017	99816.27	14.22	5.87

Source: Annual Reports of ADBL 2012/2013 to 2016/2017)

4.2.3 Deposit and Interest Rate Position of SCBL

The following table shows the amount of deposit and interest rate on deposit of Standard Chartered Bank Ltd. throughout the study period of 2012/2013 to 2016/2017. The table also presents the percentage change in deposit amount of SCBL during the study period.

Table: 3

Deposit and Interest Rate Position of SCBL

Fiscal Year	Deposit Amount (Rs. in Millions)	Change (%)	Interest Rate (%)
2012/2013	39466.45	-	4.12
2013/2014	46298.53	17.31	7.09
2014/2015	57286.48	23.73	5.27
2015/2016	55727.17	-2.72	4.64
2016/2017	63872.88	14.62	5.01

Source: Annual Reports of SCBL(2012/2013 to 2016/2017)

4.2.4 Deposit and Interest Rate Position of NABIL

The following table shows the interest rate and amount of deposit collection by Nabil Bank Ltd. Throughout the study period of 2012/2013 to 2016/2017. The table also presents the percentage change in deposit amount of NABIL during the study period.

Table: 4

Deposit and Interest Rate Position of NABIL

Fiscal Year	Deposit Amount (Rs. in Millions)	Change (%)	Interest Rate (%)
2012/2013	63609.81	-	5.48
2013/2014	75388.79	18.52	5.03
2014/2015	104237.91	38.27	3.97
2015/2016	110267.27	5.78	3.74
2016/2017	118896.16	7.83	4.23

Source: Annual Reports of NABIL (2012/2013 to 2016/2017)

4.3 Mean, Standard Deviation and Coefficient of Variation Analysis

Arithmetic mean is the sum of all the observations divided by the number of observations. Arithmetic mean is also known as the arithmetic average. Standard deviation is defined as the positive square root of the mean of the square of the deviations taken from the arithmetic mean. The standard deviation is an important measure of the total risk of possible outcomes. Coefficient of variation is defined as the ratio of the standard deviation to the mean. It is a relative measure of variability, since it measures risk per unit. As the coefficient of variation increases, so does the risk.

4.3.1 Mean, Standard Deviation and Coefficient of Variation of Deposit

Table: 5

Mean, Standard Deviation and Coefficient of Variation of Deposit

Banks	Mean (Rs. in Million)	S.D.	C.V. (%)
-------	-----------------------	------	----------

NBL	78734.95	11680.81	14.84
ADBL	76922.91	15867.88	20.63
SCBL	52530.31	8613.88	16.41
NABIL	94479.99	21251.10	22.49

Source: Annexure A1 – A4

From the table 5, we can find that the NABIL Bank has highest mean deposit i.e. 94479.99 million whereas SCBL has lowest mean deposit i.e. 52530.31 million. Like that the bank NABIL has highest S.D. i.e. 21251.10 whereas SCBL has lowest S.D. i.e. 8613.88. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower i.e. 14.84% whereas bank NABIL has high risk and low consistent than other banks because C.V. of NABIL is higher than others i.e. 22.49%.

4.3.2 Mean, Standard Deviation and Coefficient of Variation of Interest Rate

Table: 6

Mean, Standard Deviation and Coefficient of Variation of Interest Rate

Banks	Mean	S.D.	C.V. (%)
NBL	5.58	0.92	16.39
ADBL	6.88	0.74	10.83
SCBL	5.23	1.02	19.48
NABIL	4.49	0.66	14.68

Source: Annexure A1 – A4

From the table 6, we can find that the bank ADBL has highest mean interest rate i.e. 6.88 whereas NABIL has lowest mean interest rate i.e. 4.49. Like that the bank SCBL has highest S.D. i.e. 1.02 whereas NABIL has lowest S.D. i.e. 0.66. The bank ADBL has low risk and more consistent than other banks because C.V. of ADBL is lower i.e. 10.83% whereas bank SCBL has high risk and low consistent than other banks because C.V. of SCBL is higher than others i.e. 19.48%.

4.4 Correlation Analysis

Correlation analysis is used as a statistical tool to ascertain the association between variables. It may be noted that correlation analysis is one of the most widely used statistical techniques adopted by applied statisticians. Correlation table gives a preliminary idea of the direction of the relationship

between the selected variables. The variables selected for this study are-Deposit Rate, Deposit Amount, Investment and Loan& Advances. A study has been made to find the relationships between all of these variables. Correlation table has been presented below showing the correlations between each variable.

4.4.1 Correlation between Deposit and Interest Rate

The relationship between interest rate and deposit is evaluated how successfully the banks are able to collect the deposit. Here, deposit and interest rate are two variables which are denoted by X1 and X2 respectively. The following table shows the correlation coefficient and coefficient of determination of all sample banks.

Table: 7

Correlation between Deposit and Interest Rate

Banks	Correlation Coefficient (r)	Coefficient of Determination (r ²)
NBL	-0.8639	0.7463
ADBL	-0.3321	0.1103
SCBL	-0.0295	0.001
NABIL	0.9141	0.8356

Source: Annexure A1 – A4

From the table 7, it is found that correlation coefficient between total deposit amount and interest rate of NBL, ADBL, SCBL and NABIL are -0.8639, -0.3321, -0.0295 and 0.9141 respectively. The bank NBL has high degree of negative relationship between deposit and interest rate. It reveals that the movement of total deposit and interest rate is found in different direction. It means that deposit amount is not depended with interest rate. The NABIL Bank have high degree of positive relationship. It reveals that the movement of total deposit and interest rate is found in similar

direction. If interest increases, then deposit also increases and vice versa. The value of coefficient of determination of NBL, ADBL, SCBL and NABIL are 0.7463, 0. 0.1103, 0.001 and 0.8356 respectively.

4.4.2 Correlation between Deposit and Investment

The correlation between deposit and investment measures the degree of relationship between these two variables. The relationship between deposit and investment is evaluated in order to measure deposit mobilization of the banks. Deposit is mobilized in investment to earn profit by the bank. While mobilizing deposit in investment, bank should consider the adequate fund to invest as it generates enough profit and to preserve balance that can be provided to deposit holders their demand. Here, deposit and investment are two variables which are denoted by X1 and X2 respectively. The following table shows the correlation coefficient and coefficient of determination of all sample banks.

Table: 8

Correlation between Deposit and Investment

Banks	Correlation Coefficient (r)	Coefficient of Determination (r ²)
NBL	-0.3049	0.0930
ADBL	0.9099	0.8279
SCBL	0.4463	0.1992
NABIL	0.9591	0.9146

Source: Annexure B1 – B4

From the table 8, it is found that correlation coefficient between total deposit and investment of NBL, ADBL, SCBL and NABIL are -0.3049, 0.9099, 0.4463 and 0.9591 respectively. The bank NBL has high degree of negative relationship between deposit and investment. It reveals that the movement of total deposit and investment is found in different direction. It means that deposit amount is not depended with investment. The ADBL, SCBL and NABIL bank has high degree of positive relationship. It reveals that the movement of total deposit and investment is found in similar direction. The value of 'r' explains that a percentage change in deposit likely generates the same percentage of change in the value of investment. The value of coefficient of determination of NBL, ADBL, SCBL and NABIL are 0.0930, 0.8279, 0.1992 and 0.9146 respectively.

4.4.3 Correlation between Deposit and Loan & Advances

Deposit is mobilized in loan and advances to earn profit by the bank. While mobilizing deposit in loans and advances, bank should consider the adequate fund to invest as it generates enough profit and to preserve balance that can be provided to deposit holders and loan borrowers on their demand. The relationship between deposit and loan & advances is evaluated in order to measure deposit mobilization of the banks. Here, deposit and loan & advances are two variables, which are denoted by X1 and X2 respectively. The following tables show the correlation coefficient and coefficient of determination of all sample banks.

Table: 9

Correlation between Deposit and Loan & Advances

Banks	Correlation Coefficient (r)	Coefficient of Determination (r ²)
NBL	0.9882	0.9765
ADBL	0.9966	0.9923
SCBL	0.8940	0.7992
NABIL	0.9618	0.9250

Source: Annexure C1 – C4

From the table 9, it is found that correlation coefficient between total deposit and loan & advances of NBL, ADBL, SCBL and NABIL are 0.9882, 0.9966, 0.8940 and 0.9618 respectively. The NBL, ADBL and NABIL bank has high degree of positive relationship between two variables and SCBL bank has moderate degree of positive relationship. It reveals that the movement of deposit and loan & advances is found in similar direction. If deposit increases, then loan & advances also increases and vice versa. The value of coefficient of determination of ADBL, SCBL and NABIL are 0.9765, 0.9923, 0.7992 and 0.9250 respectively.

4.5 Trend Analysis

To find out the future scenario of deposit, investment and loan & advances for sample banks, trend analysis has been done. This statistical test describes the trend of any variables with passage of time. The most popular method for trend analysis is least square method.

4.5.1 Trend Analysis of Deposit

The trend analysis of total deposit of all sample banks shows the trend values of five years. Over the study period the analysis makes projection for the next two years. The following table describes the trend values of total deposit of the selected commercial banks.

Table: 10

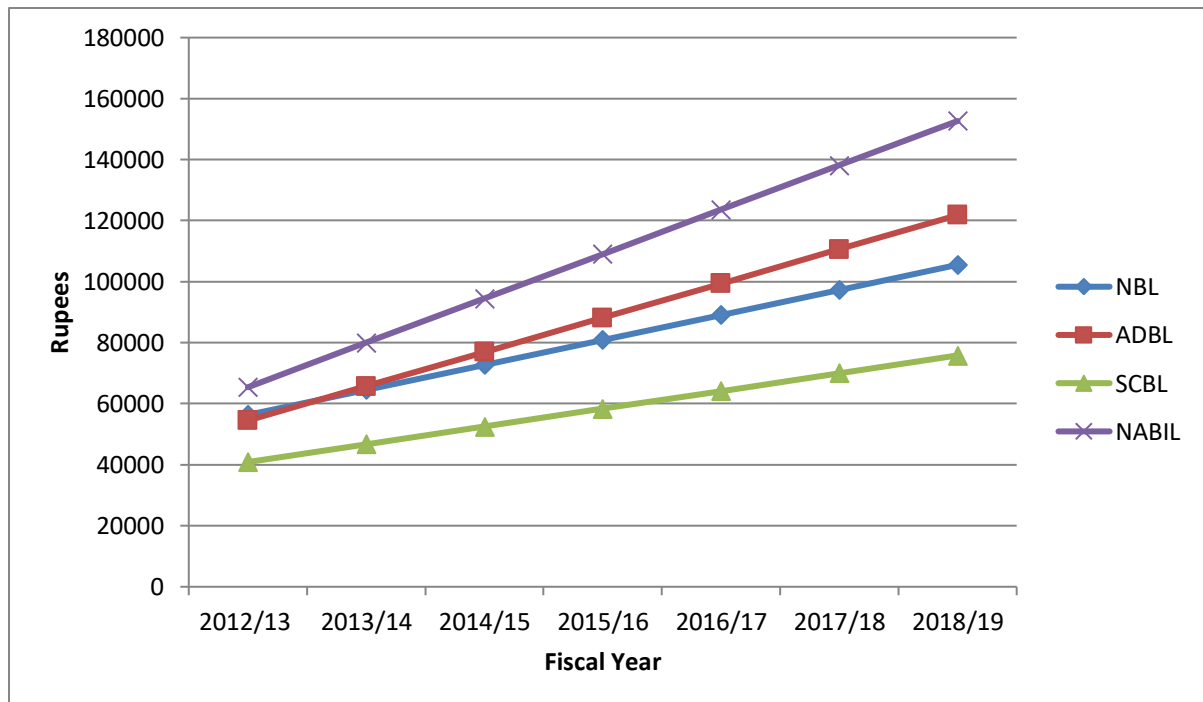
Trend Values of Deposit

Source: Annexure D

(Rs in Million)

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	56336.606	64535.779	72734.952	80934.125	89133.298	97332.471	105531.664
ADBL	54489.712	65706.31	76922.908	88139.506	99356.104	110572.702	121789.3
SCBL	40882.002	46706.152	52530.302	58354.452	64178.602	70002.752	75826.902
NABIL	65389.762	79934.88	94479.998	109025.116	123570.234	138115.352	152660.47

Figure 1



The table 10 and figure 1, shows that the total deposits of all sample banks are in increasing trend. The increasing trend of all sample banks shows the good performance of the bank on collecting the deposit from the depositors.

4.5.2 Trend Analysis of Interest Rate

The trend analysis of interest rate of all sample banks shows the trend values of five years. Over the study period the analysis makes projection for the next two years. The following table describes the trend values of interest rate of the selected commercial banks.

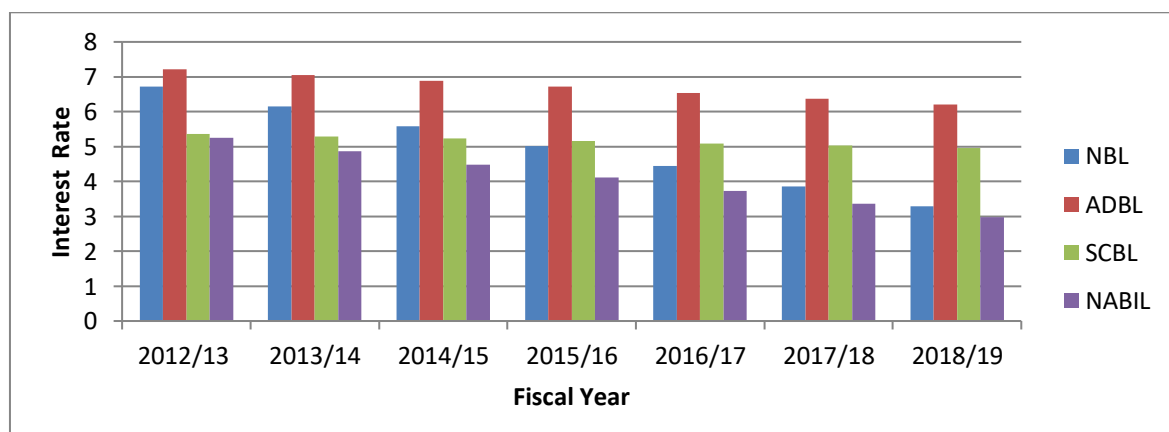
Table: 11

Trend Values of Interest Rate

Source: Annexure E

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	6.724	6.152	5.58	5.008	4.436	3.864	3.292
ADBL	7.218	7.049	6.88	6.711	6.542	6.373	6.204
SCBL	5.36	5.293	5.226	5.159	5.092	5.025	4.958
NABIL	5.248	4.869	4.49	4.111	3.732	3.353	2.974

Figure: 2



The table 11 and figure 2 shows that the interest rate of NBL and NABIL are in decreasing trend whereas ADBL and SCBL are in increasing trend. The increasing trend of sample banks shows the good performance of the bank on collecting the deposit from the depositors. The decreasing trend of interest rate of sample banks does not show good on collecting the deposit from the depositors. Depositors are not actually benefited by the interest rate. The bank are failed to provide high interest rate to the depositors.

4.5.3 Trend Analysis of Investment

The trend analysis of investment of all sample banks for five years study period from mid July 2012/13 to mid July 2016/17 and projection of trend for the next two years from 2017/18 to 2018/19 is calculated. The following table describes the trend values of investment of the

Selected commercial banks.

Table: 12

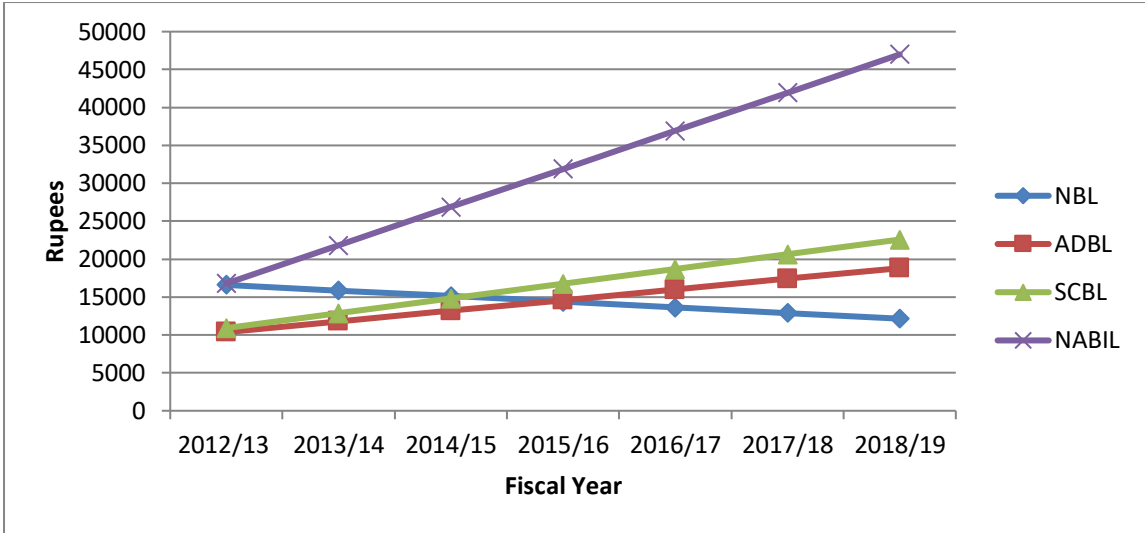
Trend Values of Investment

Source: Annexure F

(Rs. in Million)

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	16597.306	15855.7	15114	14372.4	13630.8	12889.14	12147.508
ADBL	10374.812	11779.5	13184.2	14588.8	15993.5	17398.19	18802.862
SCBL	10906.272	12852.3	14798.3	16744.3	18690.4	20636.39	22582.416
NABIL	16786.15	21820.5	26854.8	31889.2	36923.5	41957.9	46992.244

Figure: 3



The table 12 and figure 3 describes the trend values of investment of all sample banks. The above table shows that the total investments of ADBL, SCBL and NABIL banks are in increasing trend. The increasing trend of investment of sample banks shows the increasing opportunities in market and banks share in it. The bank NBL is decreasing trend. The decreasing trend of investment shows the decreasing opportunities in market and bank share in it.

4.5.4 Trend Analysis of Loan and Advances

The trend analysis of loan and advances of all sample banks shows the trend values of five years. Over the study period the analysis makes projection for the next two years. The following table describes the trend values of loan and advances of the selected commercial banks.

Table: 13

Trend Values of Loan and Advances

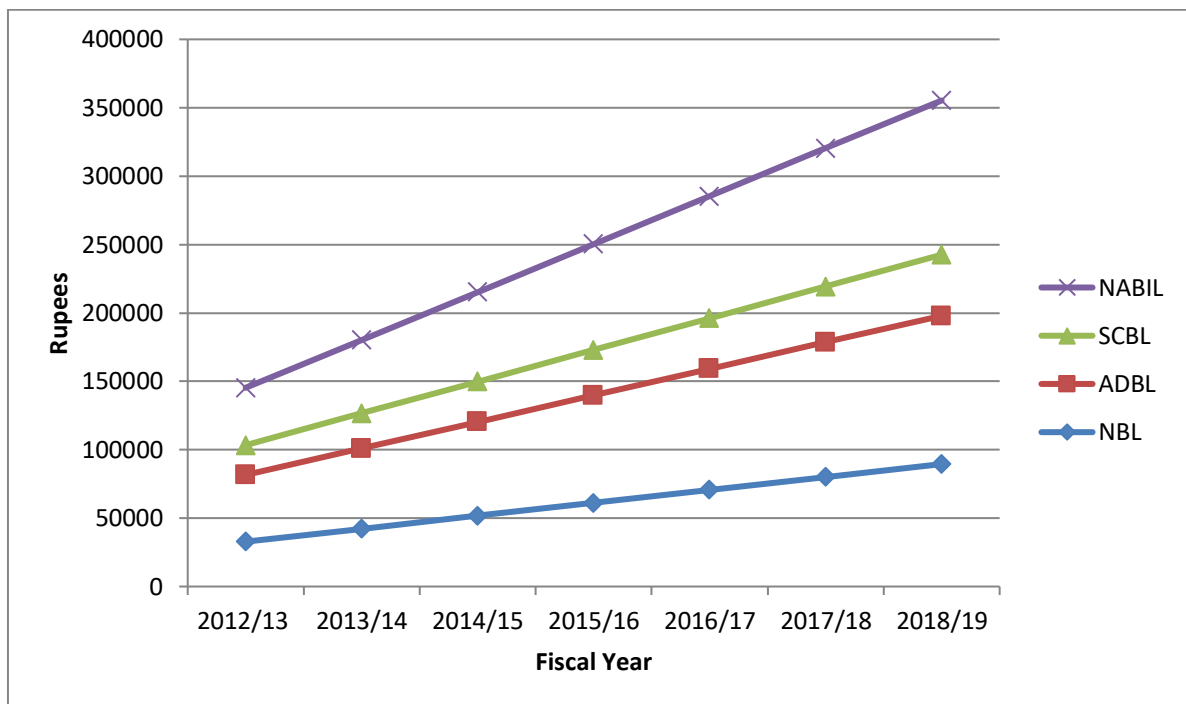
Source: Annexure G

(Rs. in Million)

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19

NBL	32826.248	42274.53	51722.82	61171.1	70619.39	80067.673	89515.958
ADBL	48760.362	58694.83	68629.31	78563.78	88498.25	98432.722	108367.194
SCBL	21771.46	25591.07	29410.67	33230.28	37049.89	40869.495	44689.102
NABIL	41965.028	53760.75	65556.48	77352.2	89147.93	100943.65	112739.378

Figure : 4



The table 13 and figure 4 shows that the total loan and advances of all sample banks are in increasing trend. The increasing trend of loan and advances of all sample banks shows the good performance of the bank on investing the deposit in profit earning sector

4.6 Analysis of Different Ratios

4.6.1 Loan and advances to Total Deposit Ratio

This ratio is calculated to find out how successfully the selected banks are utilizing their total collection or deposits on loan and advances for the purpose of earning profit. This ratio can be obtained dividing loan and advances by total deposits.

Table: 14

Loan and Advances to Total Deposit Ratio

(Ratio in %)

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	Average
NBL	56.54	56.29	65.35	68.50	76.37	64.61
ADBL	91.20	86.78	89.02	90.96	88.37	89.27
SCBL	57.84	56.11	48.32	56.17	61.47	55.98
NABIL	72.89	72.55	62.84	69.02	75.59	70.58

Source: Annual Reports of Respective Banks

From the table 14, it is depicted that Loan and Advances to Total Deposit Ratio of NBL, ADBL, SCBL and NABIL are 64.61, 89.27, 55.98 and 70.58 respectively in average. The average ratio of ADBL is higher than other banks whereas the average ratio of SCBL is lower than other banks. The higher ratio is 76.37% in FY 2016/17 for NBL, 91.20% in FY 2012/13 for ADBL, 61.47% in FY 2016/17 for SCBL and 75.59% in FY 2016/17 for NABIL.

4.6.2 Total Investment to Total Deposit Ratio

Investment is one of the major sources of income for the financial institution in long run. It also helps in mobilization of deposit fund. Bank can invest in different securities issued by government and other financial institution. This ratio measures the investment proportion in the deposit. This ratio indicates how properly firm's total deposits have been invested on different sectors.

Table: 15

Total Investment to Total Deposit Ratio

(Ratio in %)

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	Average
NBL	17.43	32.69	21.67	14.36	12.97	19.82

ADBL	16.88	20.25	17.53	16.00	15.93	17.32
SCBL	32.31	20.28	22.90	41.44	24.47	28.28
NABIL	25.68	24.24	29.71	32.74	27.41	27.96

Source: Annual Reports of Respective Banks (2012/13-2016/17)

From the table 15, it is clear that Total Investment to Total Deposit Ratio of NBL, ADBL, SCBL and NABIL are 19.82, 17.32, 28.28 and 27.96 respectively in average. The average ratio of SCBL is higher than other banks whereas the average ratio of ADBL is lower than other banks. SCBL has properly mobilizes its deposit funds. SCBL has mobilizes its fund more in investment than loan & advances.

4.6.3 Interest Expenses on Total Deposit & Borrowing Ratio

The major expenses of the commercial banks are interest on deposit used to generate revenue. The bank's total expenses consists the large percentage of interest expenses on deposits. The interest expenses incur when the interest owe on short-term borrowings of central funds from other banks and security repurchase agreements. The interest expenses also consists the expenses paid on subordinated capital notes and debentures and other borrowed fund. This ratio shows the how effectively the banks are utilizing their funds for interest expenses according to deposit collection.

Table: 16

Interest Expenses on Total Deposit & Borrowing Ratio

(Ratio in %)

Banks	2012/13	2013/14	2015/15	2015/16	2016/17	Average
NBL	3.39	3.16	2.32	1.85	1.84	2.51
ADBL	5.40	6.06	4.26	3.98	4.46	4.83
SCBL	1.55	1.24	1.15	1.01	1.35	1.26
NABIL	3.67	2.69	2.56	1.65	2.15	2.54

Source: Annual Reports of Respective Banks (2012/13-2016/17)

From the table 16, it is clear that the average interest expenses to total deposit & borrowings ratio of NBL, ADBL, SCBL and NABIL are 2.51, 4.83, 1.26 and 2.54 respectively. The average ratio of ADBL is higher than other banks whereas the average ratio of SCBL is lower than other banks.

4.6.4 Interest Income on Loan & Advances Ratio

Interest is also one of the major sources of income for the financial institution. Interest income as bank's revenue account the interest fees generated from loans. The principal source of bank revenue is the interest income generated by the bank's earning assets; mainly from its loan, securities holdings, any interest-bearing deposits, and any other miscellaneous assets generating revenue. Interest income is generated from giving loan and advances to different sector. This ratio indicates the financial position of the banks. Higher the ratio indicates good financial position and vice versa.

Table: 17

Interest Income on Loan & Advances Ratio

(Ratio in %)

Banks	2012/13	2013/14	2014/15	2015/16	2016/17	Average
NBL	12.52	12.16	9.59	9.86	9.73	10.77
ADBL	13.72	13.04	12.72	12.09	12.55	12.82
SCBL	9.76	9.31	8.68	6.86	6.80	8.28
NABIL	11.64	10.16	8.50	8.08	8.27	9.33

Source: Annual Reports of Respective Banks (2012/13-2016/17)

From the table 17, it is clear that the average interest income to loan & advances ratio of NBL, ADBL, SCBL and NABIL are 10.77, 12.83, 8.28 and 9.33 respectively. The average ratio of ADBL is higher than other banks whereas the average ratio of SCBL is lower than other banks.

4.7. Analysis of Interest Rates and Their Segregation

Table: 18

Interest Rate Structure on Deposit (%)

(Mid-September, 2014)

Deposit/ Banks	NBL	ADBL	SCBL	NABIL
Saving	2.0	3.0	2	3
Special Saving	-	6.0	2.5-3.0	2.0-8.0
7days	-	-	-	-
14days	-	-	1.5	-
1month	2.0	-	1.75	6.0-7.0
2months	-	-	1.75	-
3months	2.25	-	1.75	7.0-8.0

6months	2.5	6.75	-	8.0-9.0
1year	3.5	8.0	10.25	9.0-10.5
2years/above	2.0	8.25-8.5	11.0 5	10.0-12.0

Source: Various Banking & Financial Statistics (NRB)

The table 18 shows the interest rate structure on saving and fixed deposits of the sample banks. This again may be due to the competition that exists among the commercial banks as they seek to attract and capture customers and funds. A total absence in special saving and on the two-month deposits rate must be taken under consideration here. The fixed interest rates for deposits for a year or more are considerably higher the interest rates for short- term deposits.

Table: 19

Interest Rate Structure on Loan (%)

(Mid-September, 2014)

Sector / Banks	NBL	ADBL	SCBL	NABIL
Overdraft	10.0	12.0-13.0	-	-
Export Credit	-	-	7.0-13.0	11.5-14.0
Import L/C	-	-	13.0-13.0	11.5-14.0
Against FDR	+1.5	+2.0	+2.0;12.0-13.0Min	+2.0;12.0 min
Against Govt. Bond		+2.0 min.8.0	12.0-13.0	+2.0;14.0 min
Against BG/CG	7.0	-	12.0-13.0	14.0-16.0
Against Other	-	-	12.5-13.5	-
Guarantee			-	-
Industrial Loan	-	10.5-11.5		
Commercial Loan	-	12.0	-	-

Source: Various Banking & Financial Statistics (NRB)

The table 19 shows the loans and advances interest rates for the commercial banking sector. The interest rates for the loans and advances can be segregated into many different types with each type having a different interest rate. In the above table too, the overall interest rates can be seen as decreasing by looking at the interest rate, means here for the overall commercial banks, the overdraft interest rates are the costliest. The cheapest loans are providing against the FDR.

The loans and advances rate of interest of the sample banks have been shown above with segregations of the rates into various ones. The mean rate of loan interest has been decreasing year by year at a steady rate just like other sectors. The government loans rates come to prominence if you observe the decrement. The cheapest loans are provided for the government bond.

The loans and advances of different categories with their respective interest rates have been shown in the table above. The government bond loans the cheapest interest rates. The costliest category of loans here falls under the term loan category.

The banks have been giving out loans & advances of different types, which can be seen in the table above. This might be because of the inconsistencies in effectively running the enterprise and losing the ever-inevitable battle against private banks of Nepal. The costliest interest rates are of the overdraft with about 12.5% in average. The cheapest interest rates fall under the category of government bond with about 8.5% in average.

4.8. Major Findings of the Study

After presentation and analysis of relevant data of sample banks under study; using various analytical tools some findings can be drawn. The major findings of the study are as follows:

1. From the calculation of Mean, S.D and C.V of deposit, it is found that NABIL Bank has highest mean deposit i.e. 94479.99 million whereas SCBL has lowest mean deposit i.e. 52530.31 million. Like that the bank NABIL has highest S.D. i.e. 21251.10 whereas SCBL has lowest S.D. i.e. 8613.88. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower i.e. 14.84% whereas bank NABIL has high risk and low consistent than other banks because C.V. of NABIL is higher than others i.e. 22.49%.
2. From the calculation of Mean, S.D and C.V of Interest rate, it is found that the ADBL has highest mean interest rate i.e. 6.88 whereas NABIL has lowest mean interest rate i.e. 4.49. Like that the bank SCBL has highest S.D. i.e. 1.02 whereas NABIL has lowest S.D. i.e. 0.66. The bank ADBL has low risk and more consistent than other banks because C.V. of ADBL is lower i.e 10.83% whereas bank SCBL has high risk and low consistent than other banks because C.V. of SCBL is higher than others i.e. 19.48%.

3. From the calculation of correlation coefficient between total deposit amount and interest rate of NBL, ADBL, SCBL and NABIL are -0.8639, -0.3321, -0.0295 and 0.9141 respectively. The bank NBL has high degree of negative relationship between deposit and interest rate. It reveals that the movement of total deposit and interest rate is found in different direction. It means that deposit amount is not depended with interest rate. The bank NABIL have high degree of positive relationship. It reveals that the movement of total deposit and interest rate is found in similar direction. It showed that private banks had good performance than the Government Banks.
4. From the calculation of correlation coefficient between total deposit and investment of NBL, ADBL, SCBL and NABIL are -0.3049, 0.9099, 0.4463 and 0.9591 respectively. The bank NBL has high degree of negative relationship between deposit and investment. It reveals that the movement of total deposit and investment is found in different direction. It means that deposit amount is not depended with investment. The ADBL, SCBL and NABIL bank has high degree of positive relationship. It reveals that the movement of total deposit and investment is found in similar direction.
5. From the calculation of correlation coefficient between total deposit and loan & advances of NBL, ADBL, SCBL and NABIL are 0.9882, 0.9966, 0.8940 and 0.9618 respectively. It is found that the NBL, ADBL and NABIL bank has high degree of positive relationship between two variables and SCBL bank has moderate degree of positive relationship. It reveals that the movement of deposit and loan & advances is found in similar direction. If deposit increases, then loan & advances also increases and vice versa. Both Banks (Govt. and Private) have utilized its deposit on loan & advances effectively.
6. From the trend analysis, it is found that the amount of deposit and loan & advances of the all sample banks are in increasing trend whereas interest rate and investment of sample banks are in increasing and decreasing trend. The increasing trend of sample banks shows the good performance of the bank on collecting the deposit from the depositors and effectively utilized its deposit in loan & advances whereas decreasing investment trend of sample banks shows that the deposit not effectively utilized in opportunities in market and bank shares.
7. From the calculation of ratio analysis it is found that the loan and advances to total deposit ratio of NBL, ADBL, SCBL and NABIL are 64.61, 89.27, 55.98 and 70.58 respectively in average. The ratios of the banks are found to be in fluctuating. The

average ratio of NABIL is higher than other banks whereas the average ratio of SCBL is lower than other banks.

8. From the calculation of ratio analysis it is found that Total Investment to Total Deposit Ratio of NBL, ADBL, SCBL and NABIL are 19.82, 17.32, 28.28 and 27.96 respectively in average. The average ratio of SCBL is higher than other banks whereas the average ratio of ADBL is lower than other banks. SCBL has properly mobilizes its deposit funds. SCBL has mobilizes its fund more in investment than loan & advances.
9. From the calculation of ratio analysis it is found that the average interest income to loan & advances ratio of NBL, ADBL, SCBL and NABIL are 10.77, 12.83, 8.28 and 9.33 respectively. The average ratio of ADBL is higher than other banks whereas the average ratio of SCBL is lower than other banks.
10. From the calculation of ratio analysis it is found that Interest expenses to total deposit & borrowings ratio of NBL, ADBL, SCBL and NABIL are 2.51, 4.83, 1.26 and 2.54 respectively in average. The average ratio of ADBL is higher than other banks whereas the average ratio of SCBL is lower than other banks.

CHAPTER-V

SUMMARY, CONCLUSION & RECOMMENDATIONS

This chapter is last part of the research study which includes all the briefing of the whole study. So, it is the important chapter for the research because this chapter is the extracts of all the previously discussed chapters. This chapter consists of mainly three parts; Summary, Conclusion and Recommendation.

In summary parts revision or summary of all four chapters is made. In conclusion parts the result from the research is summed up and in recommendation parts, suggestion and recommendation is made based on the result and experience of thesis i.e. various measures are recommended to concerned organization for the improvement of the current condition of interest rate structure of the commercial bank of Nepal, so that the banks can mobilize their deposits more smoothly and properly in the near future. Recommendation is made for improving the present situation to the concerned parties as well as for further research.

5.1 Summary

Natural resources of the country Nepal remains unused and unutilized due to the lack of financing and technical know-how. In order to mobilize the limited capital, the government of Nepal adopted the liberalization policy. As result up to now 28 Commercial banks, 33 Development banks, 25 Finance companies and 65 Micro-credit development banks, 14 Saving and credit cooperatives and 12 NGOs licensed by NRB are established within the financial system of Nepal. Financial system is hoped to develop the economy and help to raise the living standard of the people. Financial intermediaries mobilize the fund by collecting the scattered resources from the savers (household, business or government) and provide the collected funds to the users or investors (i.e. Lending collected amount from depositors to borrower) the intermediaries of financial systems sustain by lending the fund on higher interest rate and paying the deposit holder a little interest. It means that such organization survive by making profit through a large interest spread on deposit and lending. The decision made to charge and provide interest on lending and deposit affects the profit position of the organization. Depositors are generally attracted by offering the higher interest rates. Similarly high credit rates de-motivate the investors as a result investment in the country shrinks down. Though there are various factors in the economy that affects the deposit amount and lending amount; interest rate is one of the major 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, inflation and interest rate, this study is undertaken. After that financial intermediaries charge and offer, but time to time, NRB uses to issue directives regarding overall performance of the financial institutions. Therefore, in past few years back, banks and other financial institutions get freedom to quote the interest rate on lending and deposit. This creates the competition in the Nepalese economy. In this sense, this study is conducted to identify whether some of the theories of finance and economics are applicable or not in the Nepalese financial markets. These major theories are like substitution effect, fisher effect and inverse relationship between interest rate, sample organizations, statement of problem, and significance of the study research hypothesis and so on are made in the first chapter of this dissertation.

In second chapter, theoretical reviews as well as review of previous research has been made. Different views about interest function of interest theories of interest factors affecting interest rate and so on are reviewed on that chapter. On the theories of interest mainly five theories – the Classical Theory, Liquidity Preference Theory, Loanable Fund Theory, Rational Expectation Theory and Modern Theory- are reviewed. Similarly the factor affecting interest rate like default risk,

Marketability risk, Exchange rate risk and so on are explained. Similarly, the in order to identify the relationship of interest rate and inflation, Fisher effect, Harrod- Keynes effect are also studied on the second chapter.

In third chapter, Research design used is mainly descriptive .Out of the total financial system, four commercial banks (two govt. and two private) are chosen for sample purpose; mainly secondary data are used for the analysis. These all are made on third chapter.

Lastly, an fourth chapter, collected data are presented in the tabular and graphic form and analyzed using various statistical tools like mean, standard deviation, coefficient of variation and correlation coefficient. Financial tools ratios were also used in to analyzed data.

5.2 Conclusion

From the analysis of relevant data of sample banks under the study: using various statistical tools and financial tools mentioned in chapter three and from their findings conclusion has drawn. This study concludes that fluctuations in the interest rate of the commercial banks slightly affect the deposit mobilization. When there is a slight increase or decrease in interest rates of deposits and lending then changes its deposit and lending amount. And vice-versa.

1. The interest rate spread (deposit and lending) of all sample banks are found to be fluctuating trend. But contrary to this, deposit amount and lending amount is increasing every year.
2. To clarify the above calculation of correlation coefficient between deposit amount and interest rate on deposit of all the sample banks were found to be positive and negative. It shows negative relationship between the two variables, it reveals that the movement of total deposit and interest rate is found in different direction whereas it shows positive relationship; it reveals that the movement of total deposit and interest rate is found in similar direction.
3. According to Fisher effect, there should be positive correlation between these two variables but the interest rate in Nepalese financial market is affected by inflation rate to same extent only.

4. During the study period, it is found that, there exist the high spread between deposit interest rate and lending interest rate. That may be due to competitive financial environment and less availability of investment opportunity.
5. It is also found that, lending interest rate of productive sector loan such as commercial loan, industrial loan, trade credit, working capital loan were decreased lesser in magnitude in comparison to the non productive sector loan.
6. It is also found that private sector banks effectively utilized its deposit than the government banks.

5.3 Recommendations

To fulfil the objectives of this study, related data and ideas are collected from different sources. These data are presented; analyzed and interpreted then conclusions are made. Based on the analysis, interpretation and conclusions, certain recommendation can be made here. So that the concerned authorities, future researchers, academicians, bankers can get same insights on the present conditions an above topics. 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:

1. Collection of deposit of sample banks has increasing trend. But collection of deposit of SCBL is low than NBL, ADBL and NABIL. Analysis shows that deposit interest rate of NABIL is comparatively low than other three banks. So this study suggests that to increase the interest rate on deposit as far as possible so that the depositors are attracted which helps to generate more capital for the development of the economy. Though this situation reduces their profit opportunities, but it will enhance the economic condition of the country in the long run.
2. Analysis of correlation coefficient between total deposit amount and interest rate, NBL,ADBL and SCBL has high degree of negative relationship between deposit and interest rate. It reveals that the movement of total deposit and interest rate is found in different direction. And NABIL has low degree of positive relationship. It reveals that the movement of total deposit and interest rate is found in similar direction but not so good. So this study suggests that interest rate of NBL, ADBL ,SCBL and NABIL need to be increase to maintain good performance and positive relation.
3. Analysis of correlation coefficient between total deposit and investment of NBL, ADBL, SCBL and NABIL, It is found that the bank NBL has high degree of negative

relationship between deposit and investment. It reveals that the movement of total deposit and investment is found in different direction. It means that deposit amount is not depended with investment .So this study suggests that NBL need to increase more investment amount form deposit amount to maintain positive relation with deposit.

4. Analysis of correlation coefficient between total deposit and loan & advances; NBL, ADBL and NABIL bank has high degree of positive relationship between two variables and SCBL bank has moderate degree of positive relationship. It reveals that the movement of deposit and loan & advances is found in similar direction. If deposit increases, then loan & advances also increases and vice versa. All banks have effectively utilized its deposit on loan & advances. So this study suggests that the NBL, ADBL and NABIL bank has decrease its loan and advances in to moderate degree because in long run high loan & advances effects on investment opportunities.
5. From the trend analysis, it is found that the interest rate of NBL and NABIL is in decreasing trend it shows that interest rate of NBL and NABIL is not deposit motivated. It means future deposit will definitely decrease. And performance of the banks also will decrease. So this study suggests that the NBL and NABIL need to increase interest rate according to the competitive market.
6. Trend of investment of NBL is in decreasing trend. Its shows that the deposit not effectively utilized in opportunities in market and bank shares. It means in long run income of the bank is in danger. So I suggest that the bank should need to increase investment amount to stable its profit in competitive market.
7. Except some well-established bank many commercial banks have interest income as main source of income. The higher dependence in interest income should be gradually decreased as it bears higher risk on bank's part. Banks should explore more avenues to increase commission-based income by increasing facilities and networks.
8. Analysis of Interest expenses to Total deposit & borrowings ratio Banks should increase its deposit in non-interest bearing deposit than increasing deposit in higher interest bearing account. Higher deposit in non-cost account expresses positive and ever lasting image of the bank in the market.
9. Banks are not able to mobilize to its deposits in terms of investment due to lack of sufficient safe investment opportunities. So this study suggests that the government has to improve the political situation of the country.
10. The central banks of Nepal, NRB should pay special attention towards decreasing trend of interest rate on deposit of govt. banks. It may cause different bad effect in the commercial

banks and country such as disintermediation, lack of savings and further saving may go outside of the country.

11. The interest spread rate as per NRB directives requirement i.e. 5% so NRB is not successful to maintain spread rate to 5%. Therefore it is big problem to commercial banks because the main income of commercial bank is difference between interest paid and received. So commercial banks are suggested to maintain interest spread rate as per NRB directives.

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