CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Financial institutions are the backbone of the economic development of any country. Even a small financial infrastructure is a vital contributor to the financial health of the national economic. The financial institutions are often fragile and susceptible to failure because of poor management, particularly financial management. National development of any country is support by financial infrastructure. Financial infrastructure indicates the financial strength, position and environment. In addition, deficits areas as financial institutions banking sector plays a major role between savers and deficits areas.

Banking plays a significant role in the development of national economy by borrowing and lending. Modern bank prefer varieties of function; therefore, it is difficult to decide the function of a modern bank because of their complex and versatile in operation. Banks are being more than banks these days even in terms of their functions *(Shrestha, 2009)*.

One of the functions of commercial bank is investment policy, which helps in economic development of the country. The process of the economic development depends upon various factors, however economists are now convinced the capital formation and its proper utilization plays a paramount role for rapid economic development. Hence, investment policy is one such tool that helps for proper utilization of resources.

Investment policy is an important ingredient of overall national economic development because it insures efficient allocation of funds to archive the materials and economic well being of the society as a whole. In this regard, commercial banks investment policy helps to achieve priority of commercial sector in the context of Nepal's economic development.

Banks constitute an important segment of financial infrastructure of any country. Only Integrated and accelerated development of the country is possible only when competitive banking services reaches nook and corners of the country. Commercial banks occupy an important place in the framework of Nepalese economy because they provide capital for the development of industry, trade, business and other resources deficit sectors by investing the saving collected as deposits. All the economic activities of every country are greatly influence by commercial banking business of the country.

Interest rate is vital tool for shaping economy. It plays important role in borrowing and lending. The rate of interest is really a ratio of two qualities of the money. It is a cost of borrowing divided by the amount of money actually borrowed, usually expressed on an annual percentage basis. The cost of borrowing money measured in rupee per year per rupee borrowed is the interest rate. When we examine how money affects economic activity, we should focus and the interest rate, which is often called the price of money. It is a rent paid for the use of money. In other words, people must pay opportunity to borrow money. Financial institutions as financial intermediaries collect money from savers in the form of deposit and provide that for business sector in the form of loan *(Shrestha, 2009).*

An appropriate interest rate structure affects the deposit and lending of any financial institutions, which in turn affects the economic upliftmen of the whole country. It affect of both saving and investment. Interest rate sends price signals to borrowers, lenders, savers and investors. Higher rate of interest generally brings greater volume of savings and stimulates the lending of fund. Lower rate of interest on the other hand tends to dampen the flow of savings and reduce lending activity. Higher interest tends to reduce the volume of borrowing and capital investment and lower interest rate stimulate borrowing and investment spending.

1.2 Statement of the Problem

Interest rate is an essential tool in the field of finance and economics. Based on Economic theory, savings increase as increase in interest rate while investment increases as decrease in interest rate. Generally, when interest provided in deposits is very less people keep their surplus funds idle. Same case occurs when interest charge on lending is high the possible investors do not borrow funds for investment. Thus hampering the economic development of country. The interest rate plays important role for the banking development. The favorable investment climate has appropriate interest rate. It is seen that the commercial banks has to shoulder more risk and uncertainty in an investment. The banks gain some profit now as well as they has lot of risk an bad debts. They are facing the problems on refund of investment as if government owned bank more but in

another parts commercial bank were making good profit in competition each other. They are generating new ideas and providing the various facilities to allure the bank customer. The interest is a price of money. The interest rate is different in depositor and lender. That difference in margin is the gain of bank. In earlier day, the interest rate charged and offered by a financial institutions and commercial banks was regulate by central bank, but now these institutions are free to fix their own interest rate. Depositor wants to increase the interest rate because they have invested more money and collect mare interest. Likewise, investor wants to decrease the interest rate because they borrowed money from bank at low cost of interest.

Commercial banks can play vital role by adopting effective interest rate policy on deposits and lending for encourage investment in every sector of economy. But it is true that commercial banks are establishes with profit motives and interest rate may affect its profits too. An appropriate interest rate can divert investment in proper field. In short, interest on deposit must be able to increase the amount of deposit by encouraging people to save their income. On the other hand, the lending rate of interest must be attractive to the borrowers, that they will be able to enjoy benefits by utilizing borrowed fund. This is possible only when the fund-seeking people will be able to earn more then what they pay as interest on borrowing funds. But, whether our country is able to attain such situations or not is a matter of concern for us. Based on discussion made, this study attempts to answer the following questions.

1. What are the interest rate structures of commercial banks in Nepal?
2. What is the relationship of interest rate with deposit amount and lending amount of commercial banks?
3. Is the interest rate on deposit of commercial Banks can attract to the depositors?
4. Is the lending rate of commercial banks can attract to the borrower or investor?
5. Is the interest rate spread satisfactory or not?

1.3 Objectives of the Study

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

i. To analyze the interest rate structure of commercial banks.
ii. To study the influence (i.e. relationship) of interest rate to deposit amount in Nepalese commercial banks.
iii. To explore the sensitivity of interest rate to the lending amount.
iv. To examine the position of interest rate spread and loan and advance ratio of Commercial banks.

1.4 Significance of the Study

Interest is simply the price-borrowed fund. Higher interest generally brings a lending investment. Lower interest rate on the other hand discourages the saving and encourages the investment. Higher the inflation, higher will be the interest rate. The theory may or may not come true in context of developing country like Nepal as most of the theories of financial markets and institutions are determined and developed by the study conducted by developed countries.

Many studies have been made in various topics related to financial management. The topic being an important aspect for the economic development of the country has not been much emphasized, so this study has been done to be familiar with interest rate structure of commercial banks and to know whether it influences deposits and loans. It is crucial task of top-level management to fix interest rate. Even though people have more saving and even need more money for investments, are not they usually familiar with the interest rate structure of banks. In this study, major functions of commercial banks will be analyzed by using various mechanisms. Since this study deals with the part of the managerial function. It is hoped in some extent this study will help the policy makers to formulate strong policy regarding interest rate charged on deposits and lending in nepalese context. This study will also be useful to various parties such as further researcher, students, teachers, financial institutions, investor, business organization, and general individual to get useful information about interest rate deposits and lending.

1.5 Limitation of the Study

This study will be limit by the following factors.

- This study includes only five commercial banks as sample for this study.

- This study is base on the data from Fiscal year 2003 to 2009.
- The reliability of this study depends upon the information provided by commercial banks and published data.
- Study ignores other financial institutions other then banks.
- Most of the data used in study are of secondary type.
- Many factors affect the deposit and lending of Commercial banks. However, this study is focuses on the interest rate only.

1.6 Organization of the Study

This study is organized into five chapters. Each chapter concentrates to some aspects of the study of 'Interest rate structure and its influence on deposit and lending of commercial banks in Nepal'. The rationale behind this kind of schemes is to follow a simple research methodology approach. The contents of each parts of this study are briefly mentioned below:

Chapter - I: - Introduction
Chapter - II: - Review of Literature
Chapter -III: - Research Methodology
Chapter - IV: - Data Presentation and Analysis
Chapter - V: - Summary, Conclusion and Recommendation

First chapter includes the introduction part of the study. This chapter deals with the general introductions, problem statement, focus and objectives of the study, limitation of the study and organization of the study.

The second chapter provides an understanding of the subject matter and gives on insight of past studies until date. It is divided into conceptual /theoretical review and review of related studies.

The third chapter describes about the research design, sample selection, sources of data, data collection procedure, and tools for analysis of study, which are planned for conducting this study.

The fourth chapter deals with the presentation and analysis of collected data and information. The generated results after the application of research method on data are analyzed and interpreted in this chapter.

The fifth chapter deals with the summary, conclusion and recommendations. In this chapter, the major findings of the study are elucidated. The summary of entire study is comprised. Conclusion of the study is also included in this chapter. As well as, possible and viable recommendations is presented in this chapter.

Bibliography, appendixes and other related materials are presented at the last of the thesis report.

CHAPTER - II

REVIEW OF LITERATURE

This part of study deals with review of past literature and research made in the country and across. Review of literature is divide in to,

- Theoretical Review
- Concept of deposit
- Concept of Lending
- Review of Previous Thesis

2.1 Theoretical Review

This part of study deals with concept of commercial banks, meaning of interest, interest rate level, theories of interest rate , factor affecting interest rates etc.

2.1.1 Concept of Commercial Bank

Commercial banks are the major financial institutions. It occupies the an important place in the framework of every economy because they provide capital for the development of industry, trade and business and other resource deficit sectors by investing the saving collected as deposits. Besides these commercial banks renders numerous services to their customer in views of facilitating their economic and social life. commercial banks has become the heart of financial system *(Shrestha, 2009).*

Bank is a financial intermediary accepting deposits and granting loans, it offer the widest menu of services provide by any financial institutions (Rose, 2003:4).

A commercial bank is a corporation, which accepts demand deposits subject to cheque and makes short-term loans to business enterprises, regardless of the scope of its other services (American Institute of Banking, 1972:345).

According to The Commercial Bank Act of Nepal 2031" A commercial bank is a bank, which deals in exchanging currency, accepting deposits, giving loans and doing commercial transaction"

Commercial bank is engaged in performing the routine banking business of accepting the deposits of public and granting loans. A commercial bank receives money from the depositors and lends it to trade, commerce and industry. Commercial bank allows its customers to draw cheque against their deposits. In addition to the primary function of receiving deposits and lending, to it also takes a wide variety of function like collection of cheque, bills, dividends, payment of insurance premium, subscription, rent, and salary, transfer of fund, purchase and sale of securities etc on behalf of customer. Apart from the agency functions, the banker also provides certain general utility services like safe custody deposits and safe deposits locker facilities, issuing of traveler's cheque, credit cards, debits cards, ATM, LC, gift cheque or vouchers. It can also act as a referee and guarantor of its customers.

The role of banks is more significant in financing the private sector. It is true that the growth of private sectors solely depends upon banking. Banking is the mother industry that caters to the development of industry, trade and commerce. In a rapid developing economy, the banker has to play a more effective role in national reconstruction. After all banking can be said to be the basic activity in planning. Bank advances and investments are indicatives of the role played by them in the economic development of the country (Kohn, 1999).

2.1.2 Concept of Interest Rate

Interest is a payment for the use of money. Therefore, when savers deposit their savings in banks bank pays certain amount of interest on saving amount because it uses same money to lend other customers. The interest rate is the price charged to borrower for the loan of money. This price is unique because it is a price of credit but unlike other prices in the economy the rate of interest is really a ratio of a two quantities: the total required

fee a borrower must pay a lender to obtain the use of credit for a stipulated period divided by the amount of credit actually made available to the borrower.

Interest is also payment for uses of money people must pay interest in borrow money. Banks and financial institutions pay interest for borrowed money and they charged interest to lender for invested amount. Interest bearing is the cost at used lending money. Interest rate is a medium of collecting funds for lending money. It is the cost of holding period at a specific time. It is also called compensation for the used of borrowed funds.

As a financial intermediary commercial banks and finance companies as well as government should take care about interest rate so that idle saving can be utilize for investment in productive sectors of the economy, employment, income, as well as whole economy may rise.

Interest rate in the free market economy is determined by the free interplay of the demand and supply forces. Although interest rate is mainly influenced by various factors are demand and supply of lonable fund. If supply increases and demand remains constant, interest rates in the market decrease. Similarly, if demand for loanable fund increases and supply remain constant, interest rates in the market increase. However, Nepalese economy has not yet developed to that level such that free market can determine the interest rates *(Shrestha, 2009).*

Nepal Rastra Bank as a guardian, fixes the terms had conditions regarding the interest and other activities of financial institutions in Nepal. Nevertheless, recent years banks are permitted to fix the interest rate they charge and offer on loan and deposits. As carver said, interest is the income, which goes to the owner of capital.

According to Prof. Wicksell, "Interest is payment made by the borrowers of capital by virtue of its productivity as a reward for his (capitalist's) abstinence."

Interest is the amount paid to the creditor in return to a debt borrowed by a debtor for a fixed period at time. As the reward of their factors of production, this market is also a reward of other factor of production this interest is also a reward paid to the capitalist for the use of capital.

2.1.3 Interest Rate Levels

Funds are allocated among the borrowers by interest rate, firms with the most profitable investment opportunities are willing and able to pay the most for capital, so they tend to attract it away from less efficient firms or from those whose products are not in demand. Of course, our country is not completely free in the sense at being influenced only by market forces. The federal government has agencies that help designated individuals or groups obtain credit favorable terms among those eligible for this kind of assistance are small businesses, certain minorities and firms willing to build plants in areas with high unemployment. Still most capital in the use is allocated through the price system.

2.1.4 Functions of the Rate of Interest in the Economy

The rate of interest performs several important functions in the economy.

- It helps to guarantee that current savings will flow into investment to promote economic growth.
- It relates the available supply of credit, generally providing loanable funds to those investment projects with the highest expected returns.
- It brings balance the supply of money with the public's demand for money.

It is also an important tool of government policy through its influence government meridians control over the volume of saving and investment. It the economy is growing too slowly and unemployment is rising. The government can use this tool to lower interest rates is order to stimulate borrowing and investment and accelerate the production and development an the other hand, an economy experiencing rapid inflation has traditionally called for a government policy of higher interest rates to slow both borrowing and spending.

2.1.5 Theories of Interest Rate

Various interest rate theories have been propounded by various economists, which describe how interest rate is determined in various situations. There verities of interest rates in financial market which is 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, simplified assumption is made. It is assume 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. The closed approximation to this pure rate in the real world in the market yield on the government bonds minus inflation. The rate of interest of treasury bond is called risk free rate of interest, which consist of real rate of interest plus premium for inflation. It is a rate of return presenting no risk of financial loss to be investor and representing the opportunity cost of holding idle cast because the investor can always invest in no risk bonds and earn this minimum rate of return. Once pure rate of interest is determined, all other interest rates may be determined from it by examining the expected future inflation and special characteristics of the securities of the securities issued by individual borrowers. For example, only the government can borrow at risk free interstate, other borrowers pay higher rates due to the greater risk of loss attached to their securities.

Difference in liquidity marketability and maturities are other important factors causing interest rate to differ from the pure or risk free rates some well-known theories interest rates are as follows.

2.1.5.1 The Classical Theory of Interest Rates

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 18th and 19th. Centuries by a number of British economists and elaborated by Irving fisher (1930) earlier in this century. The classical theory argues that the interest is determined by two forces first is

supply of savings, derived mainly from households and second the demand for investment capital, coming mainly from the business sector.

Savings by Households

Individuals and families carry out most of the saving in modern industrialized economics. For these households, saving is simply abstinence from consumption of current savings. It is therefore equal to the difference between current income and current consumption expenditures. In making this 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 the desired proportion of income to be set aside in the form of savings (i.e. the propensity to save). Generally, the volume of household savings rises with income. Higher income families and individuals tend to save more and consume less relative to their total income than families with lower income. Although income levels probably dominate saving desisting, interest rates also play an important part. Interest rates affect and 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 less now and save more is offer a higher rate of interest current savings. If more were, save in the current period at a higher rate at return, future consumption and future enjoyment would be increased. Higher interest rates increase the attractiveness of saving relative to spending, encouraging more individuals to substitute current saving and future consumption, for some quantity between interest rates and the volume at savings. Higher interest rates bring forth a greater current volume of savings. *(Joshi, 2006)*

Saving by Business Firms

Not only households but also business save. Most businesses holds save balances in the form of retained earnings (as reflected in their equity or net worth accounts). In fact, the increase in retained earnings reported by business each year is a key measure of the volume of current business saving, which supplies most of the money for annual investment spending by business firms.

The critical element determining the amount of business savings is the level of business profits. If profits are expect to rise, businesses will be able to draw more heavily earnings and capital markets for funds. The result is a reduction in the demand for credit and a tendency toward lower interest rates. In the other hands, when profits falls but firms do not cut back and their investment plans, they are formed to make heavier use of money and capital markets for investment funds. The demand for credit rises, and interest rates may rise as well *(Joshi, 2006)*.

Although the principal determinant 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 heaving in financing projects, conversely, lower interest rates encourage greater use of external funds from the money and capital markets.

Saving by Government

Governments saving appears to be unintended saving that arises when government receipts unexpectedly exceed the actual amounts of expenditures. Government saves less regularly then households and businesses. Income flows in the economy (out of which government tax revenues arise) and the pacing of government spending programs are the dominant factors affecting government savings.

The Demand for Investments Funds

The savings made by business government and households are important determinants of interest rate but they are only one side. The other side is investment spending made by business firms, government and in some cause households. Business requires huge amount 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 these purposes consist of what economists call replacement investment. However, according to classical economist, interest rate and invest able fund have inverse relationship. At low rates of interest more investment projects become economically viable an the other hand, if the rate of interest rises to high levels, fewer investment projects will be pursued and fewer funds will be required from the financial markets *(Samuelson, & Nordhus, 1999)*.

The Equilibrium Rate of Interest in the Classical Theory of Interest

In classical economy the interest rates in the financial markets are determined by the interplay of the supply specifically; the equilibrium rate of interest is determined at the point where the quantity of savings supplied to the market is exactly equal to the quantity of funds demanded for investment.

The market rate at interest moves towards its equilibrium level increases supply and demand forces charge so fast that the interest rate rarely has an opportunity to settle in at a specific equilibrium level. At any given time, the rate is probably above or below its true equilibrium level but moving toward that equilibrium. If the market rate is temporarily above equilibrium, the volume of savings exceeds the demand for investment capital creating an excess supply of savings savers will offer fund at lower and lower rates until the market interest rate approaches equilibrium. Similarly, if the market rate is temporarily below equilibrium, investment demand exceeds the quantity at saving available. Business firm will bid up interest rate until it approaches the level at which the quantity saved equals to quantity of funds demanded for investment purpose.

2.1.5.2 The Liquidity Preference Theory of Interest Rate

In this theory, the main theme is the supply and demand for loanable funds (i.e. lending & borrowing) determines the interest rate. This explanation emphasizes the flow of funds by suppliers of loanable funds (lenders) and the flow of funds by the demanders of loanable funds (borrowers). It is a monetary theory of interest since it focuses on the financial factors that influence interest rates (i.e. borrowing and lending). In addition, the loanable fund theory is a short-run, partial equilibrium explanation in which some factors

produce a change in the interest rate, but there is no analysis of the long-run impact of this change in the interest rate and on the level of employment, income, and production of the resulting impact of changes in employment, income and production on the interest rate. Rather, the loanable fund theory focuses on the factors that underlay the supply and demand schedules for loanable funds and on their interaction (Samuelson & Nordhus ,1999).

2.1.5.3 The Loanable Fund Theory of Interest Rate

A view that overcomes money of the limitations of earlier theory is the loanable funds theory of interest rate. This view argues that the risk free rate is determined by the interplay of two forces the demand for and supply of credit (loanable funds). The demand for loanable funds consists of credit demands from domestic businesses, consumers and governments and borrowing in the domestic market by foreigners. The supply of loanable funds stems from four sources via Domestic savings, hoarding demand for money, money creation by the banking system, and lending in the domestic market by foreign individuals and institutions.

The Demand for Loanable Funds Consumer

(Household) Demand for Loanable Found

Domestic consumers demand loanable funds to purchase a wide variety of goods and services on credit. Recent research indicates that consumers are not particularly responsive to the rate interest when they seek credit but focus installment payments, maturity and size of installment payments *(Joshi, 2006)*.

Domestic Business Demand for Loanable Funds

The credit demands of domestic business generally are more repressive to changes in the rate of interest than in consumer borrowing. Most business credit is for such investment purposes as the purchase of inventories and new plant and equipment. The Quantity of

loanable funds demanded by the business sector increases as the rat of interest falls *(Joshi, 2006)*.

Government Demand for Loanable Funds

Government demand for loanable funds is a growing factor in the financial markets but does not depend on the level of interest rates. Government decision on spending and borrowing depends in response to social needs and the public welfare not the rate of interest. Moreover in case of central government, it has power both to tax and to create demand on the other hand, is slightly inelastic their borrowing activities by legal interest rate ceilings. When open market rate rises above the ceiling, some state and local governments are prevent from offering their securities to the public.

Total Demand for Loanable Funds

The total demand for the loanable fund is the sum of domestic consumer, business and government credit demands. These demand curve slopes downward and to the right with respect to the rate of interest. Higher rate of interest lead some business, consumers and governments to cartel their borrowing plans, lower rates forth more credit demand *(Joshi, 2006)*.

Supply of Loanable Funds

The major sources of supply of loanable fund are from two sources.

1. The amount of saving by households, business, governments,
2. The amount of new money creates by the commercial banking system.

Domestic Saving

Saving refers to the post provident of current consumptions. The decision to save is the decision to forget current consumption in order to have a larger quantity of consumption the future. Individual or household save for a variety of reasons but there is little evidence to suggest that the quantity of loanable funds supplied through saving is clearly influence by the level of the interest rate. A higher interest rate represents a greater reward to saver for postponing current consumption and thus might be expect to produce a higher quantity of savings some individuals. In general case, the quantity of saving of saving

supplied by individuals is principally determined by the level of income and it is influenced to lesser degree by the level of interest rates. Business saving refers the net income after takes of the firm, less any cash dividends i.e. retained earning. There is little reason to believe that the volume of saving at business firm is strongly influence by the level of interest rates. For government, the volume of saving is define as the difference between revenues and expenditures. Such that saving exists when revenues exceed expenditure (budget surplus).

Creation of New Money

Although the volume of savings is the principal source of loanable fund in he financial markets, the supply of the loanable funds may be increase through the creation of new money beyond the amount made possible by current saving. The amount of new money created is determine jointly by the actions of commercial banking system and the central bank loans, purchase securities, and create to make through the credit creation process. However, the ability of commercial bank to create money is limited by the central banks using its monetary policy tools like open marked operations, reserve requirement changes and discount rate changes.

Total Supply of Loanable Funds

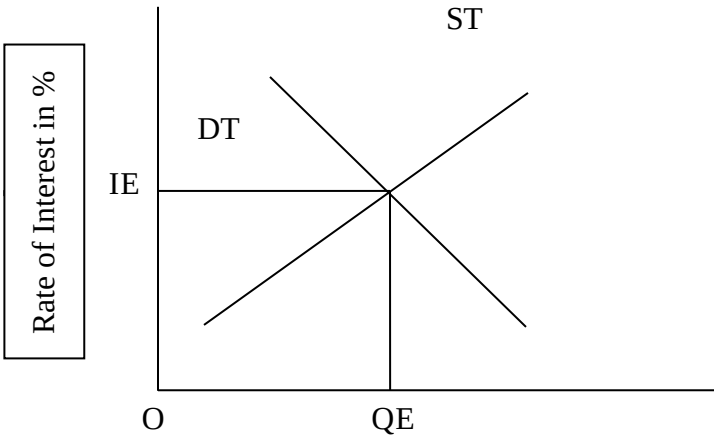
The total supply of loanable funds including domestic saving, foreign lending, dishoarding of money, and new credit created by the domestic banking system.

The Equilibrium Rate of Interest in the Loanable Fund Theory

The two forces of supply and demand for loan able funds determine not only the volume of lending and borrowing going an in the economy but also the rate of interest. The interest rate tends toward the equilibrium point at which the supply of loan able funds. This point of equilibrium is shown in the following figure where it is the equilibrium rate of interest rate and QE is volume of loan able funds (credit)

Figure 2.1

The Equilibrium Rate of Interest in Loanable Funds Theory



In the given figure DT stand as a total demand of loanable fund and the ST refer supply at the loanable fund, if the interest rate is temporarily above equilibrium, the quantity of loanable funds supplied by domestic savers and foreign lenders, by the banking system and from the disordering of money exceeds the total demand for loanable funds, and the rate of interest will be bid down on the other hand, if the interest rate is temporarily below equilibrium loanable funds demand will exceed the supply. Borrower will build up the interest rate until it settles at equilibrium once again.

2.1.5.4 Rational Expectancy Theory of Interest

The rational expectancy theory assumes that equilibrium interest rate depends upon the changes in investor's expectation regarding future security prices and return. Investor's decision towards the borrowing and lending funds come from the availability of new information. When new information appears about investment, saving or the money supply, investors begin immediately to translate that new information into decisions to borrow and lend funds. So rapid is the process of the market digesting new information that security prices and interest rates presumably impound the new data from virtually, the moment they appear. In absence of new information, next period's interest rate. In other words the knowledge of past interest rate will not be a reliable foresaid of future interest rate. In a perfectly efficient market, it is impossible to win excess returns continuously by trading on publicly available information *(Joshi, 2006).*

2.1.6 Change in Interest and its Influence upon Volume of an Asset

The prices of a security and its yield or rate of return or interest rate are inversely related. A rise in interest rate implies a decline in price; conversely, a fall in yield is associated with a rise in the security's price.

The investing funds in financial asset can be viewed from two different perspectives, the borrowing and lending of money or the buying and selling of securities. The equilibrium rate of interest from the lending of funds can be determined by the interaction of the supply of loan able funds and the demand for loan able funds. Demanders of loanable funds (borrowers) supply securities to the financial market place, and suppliers of loanable funds (lenders) demand securities as on investment. Therefore; the equilibrium rate of return or yield on security and the equilibrium price of that security are detrained at the same instant and are simply different aspects of the same phenomenon, the borrowing and lending of loan able funds.

The inverse relationship between interest rates and security prices can be seen quite clearly, when we allow the supply and demand curves to change. For example, in the face of continuing inflation, consumers and business firms accelerate their borrowings, increasing the demand for loanable curves slides upward and to the right with the supply of loanable funds unchanged. This increasing demand for loanable funds also means that the supply curve. Both a new loanable equilibrium price for securities and higher equilibrium interest rate for loanable funds results.

Conversely suppose consumers decide to save more expanding the supply of loanable funds, then the supply of loanable funds curve slide downward. But with more savings, the demand for securities curve must rise, sliding upward as those added savings are invested in securities. The result is a rise in the equilibrium price of securities and a decline in the equilibrium interest rate.

2.1.7 Factors Affecting Interest Rates

In the preceding section, we ermined the factors that cause the interest rate or yield on one security to be different from the interest rate yield on another. There factors included

the maturity period or term of a loan and expected inflation. In this section, our focus is upon to learn why not one but, in fact, thousands of different interest rates exist in the economy.

a) **Marketability**

Marketability is the capability of being sold quickly at low transaction cost (Kohn, 1999:174). Marketability risk deals with the degree of difficulty in being able to convert a financial claim into cash at its most react transaction price or very close to it. Savers who purchase poorly marketable investments expect, to be compensated for the lack of marketability. This represents an additional interest spread and is referred to as the marketability or liquidity risk premium *(Shrestha, 2009).*

Marketability is positively related to this size and population of the institution issuing the securities and to the number of similar securities outstanding. Not surprisingly, stocks and bonds issued in large blocks by the largest corporations and government units tend to find acceptance more readily in the market with a larger number of similar securities available, but sell transactions are more frequent and a consistent market price can be established *(Thapa, 2008).*

b) Default Risk

Default risk involves that potential saver will receive less principal and interest on the financial claim that the contract specifies. It is related with the probability that some or all of the entail investment will not be returned. The degree of default risk is closely related to the financial condition of the company. Default risk requires making estimates of the possibility of loss due to this reason. Face many different kinds of risk, but one of the most important is default risk- the risk that a borrower will not make all promised payments at the agreed upon items. All securities except government securities are subject to varying degrees of default risk.

c) Prepayment Risk

A new form of risk affecting the relater interest rates confronting modern investors arise when they acquire so-called loan backed securities. There loan backed securities are usually created when a lending institution, such as a bank or mortgage company, removes a group of similar loans from its balance sheet and places them with a trustee (such as a security dealer) who, using the loans as connatural sells securities to rise new capital for the lending institution. Each of these securities derives its value from the income earning potential of the pool of loans that backs of securities. As the loans in the pool generate interest and principal payments, these payments flow through to holders of the loan-sacked securities. In loan is backed securities investor demand higher. Yields to compensate them for prepayment risk associated with it (*Thygerson, 1995).*

d) Servicing Cost

Some financial claims are difficult to service. This means that the process of collecting interest and principal payments providing accurate records or monitoring the ongoing credit position of the borrowing involves considerable operating costs. Lenders must be compensated for the servicing costs. This cost is included in the interest rate charged and is referred to as the servicing cost *(Thygerson, 1995).*

e) Exchange Rate Risk

Today's financial markets have become more global, there has been a significant growth in the borrowing and investment in foreign financial claims. A US company establishing manufacturing facility in Nepal might be inclined to issue shares and or bonds denominated in Nepalese rupees rather than US dollars. Investors also have available to them many investments involve exchange rate risk. This risk relates to the possibility that the rate of exchange between the domestic currency and foreign denominated currency will than go because of numbers of factors. The primary risk for this borrower is that the values of the currency borrowed rises in relation to the domestic currency. This result in an unexpected cost on the international loans, since the loan would have to be repaid in the foreign currency that has risen in value relate to the domestic. This potential change

in currency values must be reflected in computing the cost of borrowing *(Shrestha, 2009).*

f) Call Privileges

Many corporate bonds and mortgages all most all municipal revenue bonds and some government bonds issued in today's financial markets carry a call privilege. This provision of the bond contract grants that the borrower has the option to restore all or a portion of a bond issued by buying back the securities in advance of maturity. Bondholders usually are informed of a call through a notice in a newspaper of general circulation, while holders of record of registered bonds are mortified directly. Normally when the call privilege is exercised, the issuer will pay the investor the call price, which equals the securities face name plus a call the size of the call penalty is set forth in the indentures and generally varies inversely with the number of years remaining to maturity and the length of the call deferment period. In the case of a bond, one year's worth of coupon income is often the minimum call penalty required *(Thapa, 2008).*

g) Taxability

The final factor influencing the change in interest rate is taxability. Financial claim income is typically subject to taxation. Taxes imposed by federal, state, and local governments have a profound effect on the returns earned by investors on financial assets. Since the value of financial claim subject to taxation is base on its anticipated cash flow, taxation acts to reduce those cash flows. Not all incomes are taxable equally. Thus, higher the tax lower will be the cash flow and higher the interest rate and vice versa *(Thapa, 2008).*

2.2 Deposit

2.2.1 Concept of Deposit

Deposit is the sum of money lodged with bank, discount house or other financial institutions. Deposit is nothing more than the assets of an individual that is given to the bank for safekeeping with an obligation to get something (interest) 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 withdrawals by mean of cheque on a short notice by customers. There are several restrictions on these deposits, regarding the amount of deposit, number of withdraw etc. These are considered more as investments and hence they earn some interest. The rate of interest varies according to the nature of deposits. The bank attracts deposits from customers by offering difference rates of interest and different kinds of facilities. Though the bank plays an important role in influencing the customer to part with his funds and open deposit accounts with it, it is ultimately the customer who decides whether she/he should deposit his surplus funds in current deposit a/c, saving deposit a/c. or fixed deposit all. Bank deposits arise in two ways. When the banker receives cash, it credits the customer's account, it is known as primary or a simple deposit. People deposit cash in the banking system and there by convert one form of money, cash, into another form, bank money. They prefer to keep their money in deposit prim accounts and issue cheques against them to their creditors. Deposits also arise when customers are granted accommodation in the form of loans when a bank grain a loan to a customer it doesn't usually pay cash but simply credits the customers account with the amount of loan *(Shrestha & Bhandari, 2001).*

2.2.2 Types of Deposit

There are mainly three types of deposits in banks in practice. There are:

a. Current Deposit

A current deposit is a running account with amounts continuously. These accounts are also called demand depositor and demand liabilities since the banker is under the obligation to pay money in such deposits on demand. The account never becomes time barred, because the limitation does not run until the customer on the bank for the payment of deposit makes a demand. These accounts are generally opened by business houses, public institutions, corporate bodies and other organizations whose banking transactions are numerous and frequent. As these deposit are payable on demand, banker is obliged to keep larger cash reserves than are needed in the case of fixed and saving deposits. This type of account is just a facility offered by a bank to its customers. So such deposit doesn't yield and interest return *(Shrestha, 2009).*

b. Saving Deposit

According to commercial bank act 2031 saving accounts means "An account of amounts deposited in a bank for saving purpose". The saving deposit bears the features of both the current and fixed period's deposits. Saving account is mainly meant for no trading customers who have some potential for saving and who don't have numerous transactions entering their account. While opening the 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 it the customers want to with draw more money from the bank which is not allowed by it but if he/she gives pre-information to the banks, he/she can withdrawn more money. The bank fixes the minimum and maximum amount of with draw able through a cheque from this deposit. It the bank goes into liquidation, priority is given to the saving deposit holders *(Shrestha, 2009).*

c. Fixed Deposit

Under the commercial bank act 2031 "Fixed account means an account of amounts deposited in a bank for certain period of time." The customers opening such account deposit their money in the account of for fixed period. Usually, only the person or institution who wants to gain more interest opens such type of account high interest rate paid to this deposit as compare to saving deposit. 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 too can be made his financial transaction stronger by getting more interest from this deposit. The principal amount with interest must be return to the customer after expiry of fixed time. Bank generally gives loans up to 90% of the deposit against the security of the deposit for this bank charge. Some higher interest than the interest allowed on the deposit.

2.2.3 Importance of Deposit

Deposit arises from saving. An individual's income equals consumption plus saving she/he 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, invests 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 increase and finally G.D.P. and growth of the economy occurs. It means that the deposit has very important rule 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 banks is the accumulated capital, which can directly invest. There is a great need of such deposit in the development countries. Deposit includes the idle money of the public, bank being the inter mediator to accept this sort of money and help to canalize this in productive sector. Therefore, the importance of banks and financial intermediaries is larger in present context *(Shrestha & Bhandari, 2058).*

2.3 Lending (Credit)

2.3.1 Concept of Lending (Credit)

Credit is the provision of resources (such as granting a loan) by one party to another party where that second party does not reimburse the first party immediately, thereby generating a debt, and instead arranges either to repay or return those resources (or material(s) of equal value) at a later date. Any movement of financial capital is normally quite dependent on credit, which in turn is dependent on the reputation or creditworthiness of the entity that takes responsibility for the funds. In credit transaction, the lender (or banks) must have confidence in the borrower that s/he will be able to repay the money. In credit transactions, the creditor turns over to the debtor to repay an equivalent amount usually money in future plus an added sum called interest. In other words, the commercial bank earns profit by lending the amount in terms of loan or credit and in return, it gets interests. Bank loans are classified as: A) Loans and advances, b) Overdrafts c) cash credit d) discounting of bills and so on *(Shrestha & Bhandari, 2008: 255).*

If credit is made to the government, the credit is known as public credit and if the private transacts credit for his own purpose, the credit becomes private. There are certain distinctions between public and private credit. Bank credit refers to the credit taken by

the banks. Bank is the major sources of credit to both private and public debtors, some times bank take credit. There is another type of credit knows investment credit and commercial credit which can be divided according to the purposes of using credit. The former refers to the credit, which is purposes; similarly, another classification is consumer's credit and producers' credit.

2.3.2 Factors affecting the volume of Lending

The volume of credit with in a country depends upon different factors. Some of the factors the volumes of credit are as follows:

1) Credit (lending) Rate

If the bank credit rate is very high then, the volume of credit expansion is less and vice versa. It means that the volume of credit and interest rate of credit has inverse relation. People invest very leftie in productive sectors when the interest rate is high in the market economy.

2) Rate of Return

If the rate of return is high, people inclined to invest more people earn more profit and they become able to afford higher rate of interest along with timely repayment of loan.

3) Investment Opportunity

If the investment opportunity with in the country is high, the volume of credit becomes higher. The basic thing for investment stimulation is easy and cheap credit etc.

4) Pace of Financial Development

If there, are enough banking facilities to provide loans in easy terms, the volume of credits may be high? It is due to the lack of cheap moneylenders that rural people are deprived of loan. If the banking facility with in the nation is expanded, the volume of credit rises.

5) Basic Infrastructure

Like transportation marketability, availability of raw materials plays an important role in raising the volume of credit in the country.

6) Political Situation

Political situation, especially political instability, is also one of the major causes of low volume of credit. In such a case, none would like to risk his capital in new ventures. The present condition of the country is the glaring example of this. In addition to aforementioned point, other factors like trade condition, currently condition are also the factors affecting the volume of credit.

2.4 Review of Previous Thesis

In the preparation of this thesis, there are some research papers and thesis related this study, which contribute some idea and help in the presentation of this study regarding to this thesis, there are very few thesis and research papers submitted to libraries of Tribhuvan University and its wing colleges on the same topics. Nevertheless, beside this, there are some other theses that are related to this study to some intent. The review and the extract from them presented in this section.

Rajbhandary (1978) conducted a study on *"The Interest Rate Structure of Commercial Banks in Nepal"*. The objective of the study was to the relation of interest rate with saving and fixed deposits; with loans and advances, and with interest earning (i.e. interest received on loan minus interest paid on deposit).

The analysis concludes that the time deposits are positively and significantly correlated with the interest rates. There is significant correlation between the saving deposits and the rate of interest. Fixed deposit is more sensitive to the interest rate revision done by NRB. The correlation between the growth of fixed deposits and the interest rate particularly from 1974 to 1977 is most significant. But the relation between the interest rates and the loan and advances is less significant. Among all the sectors, the private sector seems most

sensitive to the interest rate change. Most of the loans too correlated positively if absolute cumulative figures are taken. But the growth rate of total loans and advances except investment on HMG securities is negatively correlated more with the weighted average rate of interest since 1973. The growth of loans to private sector is also negatively correlated with interest rate since 1971. Negative correlation between loans and interest rate meant that loans decrease at higher rate and vice- versa.

The net interest earning is depended upon interest coverage. The total interest received and the total interest paid significantly correlated in the case of both of the banks i.e. Nepal Bank limited and Rastra Banijya Bank the sample organization of the study. He is in view that NRB can well monitor the credit flow and profits of the commercial banks in Nepal by manipulating the demand for and supply of money.

Khatri (1980) was conducted a study titled "*Interest Rate Structure and It's Relation with Deposits Inflation and credit in Nepal*." The objective of his study was to show the relationship between interest rate and other economic variables like deposit, inflation and credit flow. The study concludes the following, according that thesis, the objectives were.

a. To present a concrete picture of the interest rate structure in Nepal.
b. To predict the relationship between interest rate and other economic variables like deposit, inflation and credit flow in Nepal.
c. To analyze the impact and implementation of the policy of interest rate of Nepal Rastra Bank.

In this study, he found that rate of interest is directly affected by the rate of inflation. He found that the price level of Nepal is liked with Indian prices and also found very high inflation during his study period. His suggestion to commercial banks is to fix the confessional interest rate in order to promote, the cottage and small scale industries and to monetarists to consider the rate of inflation while determining to consider the rate of inflation while determining the interest rate on deposits.

The inflation within our country has been very high since few years. In fact, the prices in Nepal are affected by the movement in Indian price level rather than by domestic monetary expansion. Prices in Nepal are linked with Indian because of the 500 miles open boarder and the availability of Indian goods and currency. There is consolidated type of money and capital markets in Nepal. Commercial bank branches are concentrated in the urban areas. Regarding deposit mobilization in the present context the urban area has occupied more than 80% and the flow of credit is also centralized only in urban areas on the other hand the volume of deposit has overcome the volume of credit which means to say that banks are not getting new investment opportunities.

Bhandari (1998) upon the title of "*The Impact of Interest Rate Structure on Investment Portfolio of Commercial Banks of Nepal*." He concludes the following:

a. Rates of commercial banks have been fluctuating deposits and lending rates were increases immediately after liberalization of the interest rate an August 31, 1989 but however, started to decline which have helped in increasing the credit flow.
b. Interest rate structure has direct influence a profitability of commercial banks, decreasing lending rate helps to increase the profitability through increasing the credit.
c. Deposits are more interest rate conscious and positively co-related.
d. Loans and advances of commercial banks have been found to be continuously increasing with the decline in interest rates.
e. Effective interest rate structure helps in proper utilization of resources as measured by loan to deposit ratio.
f. Most of the banks are having similar interest rate structure, which lessens the importance of liberalization of interest rate.

Dangol (2003) *"Impact of Interest Rate on Financial Performance of Commercial Banks"* concludes:

a. Most of the commercial banks contradict the general financial theories.
b. The relation between amount of deposits and interest rate and deposit, in general concept, must be positive. However, deposits are increasing despite the clearest in

the general level of interest. The result of such phenomenon is that there are fewer investment opportunities for the banking sectors as well as general investors.

c. The relation between total amount of loan and the lending rate is negative and significant. However, the change for flow is not proportionate with the change in the lending rate.
d. Correlation between interest rate and inflation is not significant.
e. Correlation, between interest rate is responsible to shape the profitability of banks but also the operating efficiency also has major influence on it.

Bhatta (2004) in the topic, "*Interest Rate and its Effect on Deposit and Lending*". In this study the disseminator tries to portrait the relation of interest rate with deposit and lending amount. Her findings and the findings made by Chettri are seems to be different. According to Chettri's finding, all the relation matches the theory. But other matters are same as Chettri's. The conclusion drawn by Bhatta is as follows:

a. Deposit rates of all sample banks under study are in decreasing trend, meaning that every year deposit rates of sample banks under study have decreased.
b. Lending rates of all sample banks under study are also in decreasing trend, means that every year lending rates of sample banks under study have decreased.
c. Analysis shows that interest rate on lending are far higher than deposit rates of sample banks. The correlation coefficient between these two variables, (deposit rate and lending rates) of sample banks comes highly positive.
d. The simple correlation coefficient between deposit rate and deposit amount of sample banks are highly negative. However, out of them, correlation coefficient analysis of one-sample banks is found to be negative.
e. The correlation analysis between lending rate and lending amount of all sample banks under study comes highly negative. This relation between two variable of sample banks matches with the theory which says with the increase in lending rate, lending amount decreases and vice versa.

Finally her conclusion about her own words, as follow:

"There is significant relationship between deposit rate and deposit amount and lending rate and landing amount of almost all commercial banks except one. Test of significant for correlation coefficient between inflation rate and deposit and lending rate shown that these variables are not correlated."

Shrestha (2008) on the "*Interest Rate Structure and Its Influence on Deposit and Lending of Joint Venture Banks in Nepal*" concludes:

a. The interest rate on both deposit and lending of all sample banks are in decreasing trend.
b. The saving deposit amount and saving interest rate have negative relationship.
c. Fixed deposit amount and fixed interest rate shows negative relationship.
d. One of variables that affect the demand of fund (lending activity) is lending interest rate.
e. Interest rate on deposit does not attractive for the depositors; as every year deposit rate of sample, banks are seen deceasing. So it may also be concluded that commercial banks are not conceived in collecting deposit as interest rate on deposit is too less.
f. lending rate of sample banks it can be concluded that interest rate on lending attract borrowers investors as lending rate of sample banks have decreased every year to provide better opportunities for the borrowers investors.

2.5 NRB Directives and Interest Rate in Nepal

Taking the reference of history on interest rates, we observe different changes in interest rate. The sole controller for regulating interest rate in Nepal is central bank, Nepal Rastra Bank. In the beginning, the interest rate charged and offered by banks and financial institutions was mentioned at a lower level with a view to stimulate real income and employment. However, dramatic change had been made time to time. Regulation of interest rate by Nepal Rastra Bank made in the early stage of financial market development taking the period from 1955 to 1965. However, NRB gradually began to liberalize the determination of interest rate on a phase-wise basis according to compatibility of the banks and the financial institutions that have developed in the

country. In the early mid 1980's Nepal has adapted liberal economic policy. Number of finance companies and commercial banks began to develop and government made the liberal policy in maintaining the interest rate were encouraged for commercial banks, established under joint venture in association with foreign banks in private sectors. Similarly, deregulated of interest rate was applied to under financial companies established finance company acts. Likewise, other financial institutions like development banks, micro financial institutions. NGOs and licensed cooperative under, NRB also made competitive in the determination of interest. The central bank, the sole institution authorized to determine the interest rate as per NRB act. There are full discretions to NRB in determining interest rate structure of banks and financial institutions taking from the period 1960 to 1975.

On 16 November 1984, government had provided autonomy in offering the interest rate on saving and time deposit to the extent of 1.5% and 1% points respectively above the prevailing rates. In 1986, financial institutions got freedom in fixing their interest rates in their deposits and loans. In addition, there was also limitation on the interest rate on different loans provided for the productive and priority and full deprived sector. However, there was limitation imposed on certain sectors of lending such as the rate of maximum of 15% on the priority sectors loan. Moreover, for other kinds of loans financial institutions were given freedom to maintain the interest rate structure. In this way, government provided freedom as well as limitation on the determination of interest rate.

On August 22, 1992, Nepal Rastra Bank issued directives to commercial banks and financial institutions to spell clearly out the interest rate on deposits. Nepal Rastra Bank also instructed the bank and financial institutions to limit their interest rate spread on deposit and credit at 6 % within the mid-December 1993. A further instruction to banks and financial institutions was issue in 2002, and now the interest rate spread require to maintained by commercial banks and financial institutions has been removed.

The interest rate regime in Nepalese perspective changed from rigid control and monopoly of NRB to from 1960 to 1980 to that of ultimate deregulation of interest rate and removal of spread from 1882 to 2002.At present there is complete freedom to have competitive system as an important part of government's liberalization policy. In this way interest rate became a market determined phenomena rather than a regulated phenomena. The process of interest rate deregulation became a major indicative factor of the financial system reform in the country.

2.6 Research Gap

Very few research works are done in the sector of interest rate structure. This study focused on the interest rate structure in commercial banks of Nepal. These banks are crucial as it determine its strength and weakness on the aspect of interest rate policies with the NRB directives. This study focuses on analyzing the secondary data relating to Interest rate structure of commercial banks. The main objective of the study is to find out how effect the Nepalese commercial bank for interest rate structure. The findings of these studies are base on secondary data.

Beside this study on the interest rate structure on SCBNL, NABIL, EBL, HBL and BOK Has covered the latest data, which cover the information from 2003 to 2009 that makes it the last version on this study with these banks.

CHAPTER - III

RESEARCH METHODOLOGY

This part of study deals with research design adopted and its other factors like population & Sample, sources of data & collection procedure, tools for data analysis and presentation, and statistical tools.

3.1 Research Design

The research design used in this study is descriptive and exploratory.

3.2 Population and Sample

The population for the study comprises bank and non-bank financial institutions totaled 242 out of them, 26 are commercial banks, 63 development banks, 77 finance companies, 15 micro- credit development banks, 16 savings & credit cooperatives and 45 NGOs. The populations of the study are as followed.

Table 3.1

Commercial Banks in Nepal

S.N	Names	Operation date(A.D.)	Head Office	Paid up Capital (Rs. In millions)
1	Nepal Bank Limited	1937/11/15	Kathmandu	380.40
2	Rastriya Banijya Bank	1966/01/23	Kathmandu	1172.30
3	ADB Ltd.	1968/01/02	Kathmandu	10777.50
4	NABIL Bank Limited	1984/07/16	Kathmandu	965.75
5	NIB Limited	1986/02/27	Kathmandu	2407.10
6	SCB Nepal Limited.	1987/01/30	Kathmandu	932.00
7	Himalayan Bank Limited	1993/01/18	Kathmandu	1216.20
8	Nepal SBI Bank Limited	1993/07/07	Kathmandu	874.50
9	NB Bank Limited	05/06/1994	Kathmandu	1822.70
10	Everest Bank Limited	1994/10/18	Kathmandu	838.80
11	Bank of Kathmandu Limited	1995/03/12	Kathmandu	844.40
12	NCC Bank Limited	1996/10/14	Rupendehi	1399.50
13	Lumbini Bank Limited	1998/07/17	Chitwan	1096.10
14	NIC Bank Limited	1998/07/21	Biaratnagar	1140.50
15	Machhapuchhre Bank Limited	2000/10/03	Pokhara	1479.10
16	Kumari Bank Limited	2001/04/03	Kathmandu	1186.00
17	Laxmi Bank Limited	2002/04/03	Birgunj	1098.10
18	Siddhartha Bank Limited	2002/12/24	Kathmandu	952.20
19	Global Bank Ltd.	2007/01/02	Birgunj	1000.00
20	Citizens Bank International Ltd.	2007/6/21	Kathmandu	1000.00
21	Prime Commercial Bank Ltd	2007/9/24	Kathmandu	700.00
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu	1337.50
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu	1000.00
24	Development Credit Bank Ltd.	2001/01/23	Kathmandu	1655.30
25	NMB Bank Ltd.	1996/11/26	Kathmandu	1424.60
26	Kist Bank Ltd.	2003/02/21	Kathmandu	2000.00

Source: www.nrb.org.com / directives, notification

The sample banks are as follows.

- NABIL Bank
- Bank of Kathmandu Ltd(BOK)
- Everest Bank Limited (EBL)

- Himalayan Bank Limited (HBL)
- Standard Chartered Bank Ltd(SCBL)

3.3 Sources of Data and Collection Procedure

This study is base on secondary data that are collected from the annual report, balance sheet, prospectus, newspaper, internet and other sources. Interest rate as well as amount and their organizational profiles were collect through personal visit and from their websites.

3.4 Tools for Data Analysis and Presentation

This study requires more statistical tools rather than financial tools for analysis and presentation. So emphasis is given on statistical tools however, some financial tools are also used to meet the objectives of the study.

3.4.1 Statistical Tools

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 the 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. It is calculate as follows:

Arithmetic Mean(x) = Mean $(\bar{X}) = \frac{X_1+X_2+X_3}{n}$

Mean $(\bar{X}) = \frac{X_1+X_2+X_3 \ldots\ldots\ldots\ldots Xn}{n}$

Where,

ΣX = Sum of the sizes of items

$(\bar{X})$ = Mean

N = Number of items

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 overage of the series. The standard deviation measures the absolute dispersion of a distribution. The greater the amount of dispersion the greater the greater the amount of dispersion the greater the standard deviation i.e. greater will be the magnitude of the values from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a serves.

Standard deviation is denoting by a Greek letter 'σ' (sigma) and is calculating as follows:

$$\text{Standard deviation (S. D.) } (\sigma) = \sqrt{\frac{\sum(Xn-\bar{X})^2}{n-1}}$$

Where,

$\bar{X}$ =The average (mean)

X_n = the individual observation

n = Total number of observation

Correlation Coefficient

The correlation analysis is the technique used to measure the closeness of the relationship between the variables. It helps is 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 relate with each other and to what extent variations is one leads to the variation in the other.

$$\text{Simple Correlation Coefficient (r)} = \frac{N\sum x_1x_2-(\sum x_1)(\sum x_2)}{\sqrt{N\sum X_1^2-(\sum x_1)^2}\sqrt{N\sum X_2^2-(\sum x_2)^2}}$$

Correlation may be positive or negative which lies between ± 1. Simple correlation between interest rate on deposit and deposit amount interest rate on lending and credit or lending amount and is compute in this thesis. The correlation between interest rate on deposit and deposit amount is positive. Interest rate on lending and lending amount is

negative when inflation increases, interest rate also increases in same direction and vice versa. For our study, following reference is used.

- Correlation may be positive or negative and ranges from -1 to +1 when r = +1 there is positive or negative and ranges when r = 1 there is prefect negative.
- Correlation, when r =0, there is no correlation and when r < 0.5 then there is low degree of correlation.
- When 'r' ties between 0.7 to 0.999 (or -0.7 to -0.999) there is high degree of positive or negative correlation.
- When 'r' lies between 0.5 to 0.699, there is a moderate degree of correlation.

Coefficient or 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 and y. It refers to a measure at the total variance in a dependent variable that is explained by its linear relationship to and independent variable. The coefficient of determination is denoting by R2 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 R2 is always a positive number. It cannot tell whether the relationship between the two variables is positive or negative. The square of the simple correlation coefficient is call 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) = $(r)^2$

t - Test for significance of correlation coefficient

If 'r' is the observed sample correlation coefficient of 'n' pairs of observations from bi-variate normal population the test statistics for significance of correlation under null hypothesis is given.

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

Where,

n= No. of observations from bi-vitiate normal population

t = t- distribution

r = Simple Correlation Coefficient

3.4.2 Financial Tools

Financial tools are use to examine the strength and weakness of performance. In this study, financial tools like interest rate spread and ratios have been use. Ratio is the mathematically relationship between two accounting figures Ratio analysis is used to compose a firm's financial performance and status to that of other firm's or to it overtime.

The qualitative judgment regarding financial performance of firm can be done with the help of ratio analysis. Therefore, only those ratios have been cover in this study as required by the study.

Loan and Advance to Total Deposit Ratio

This ratio is calculated to find out how successfully the banks are utilizing their total deposits on loan and advances for profit generating purpose. A ratio helps us showing the relationship between loans and advances, which are grant, and the total deposit collected by the bank. A high ratio indicates better mobilization of collected deposit and vice versa. It should be note that too high ratio might not be better from liquidity point of view. This ratio is calculate by dividing loan and advances by total deposits. This can be stat as below:

$$\text{Loan and Advance to Total Deposit Ratio} = \frac{\text{Loan and Advance}}{\text{Total Deposits}}$$

Interest Rate Spread

Interest rate spread is a difference between interest rate on lending and interest rate on deposit. Generally, banks charge more interest rate on landing than they provide interest rate on deposits. Interest rate spread is calculated as fallow.

Interest Rate Spread = Interest Rate an Lending - Interest Rate an Deposit

Higher spread shows the bank charge high rate for the borrowers than they provide for depositors.

Research Hypothesis

The hypotheses formulated for this study are as follows:

First Hypothesis

1) Hypothesis between Deposit Interest Rate and Deposit Amount

Null Hypothesis, Ho: p= 0, i.e. population correlation coefficient is zero. In other words, the variables (deposit interest rate and deposit amounts) are uncorrelated in Nepalese financial market.

Alternative Hypothesis H_1: $p \neq 0$, i.e. population correlation coefficient is not equal to zero.

In other words, the variables (deposit interest rate and deposit amount) are correlated.

Second Hypothesis

2) Hypothesis between Credit Interest and Credit or Loan Amounts

Null Hypothesis Ho: p = 0, i.e. population correlation coefficient is zero. In the words, the variables (credit interest and credit or loan amounts) are not correlated in Nepalese commercial banks.

Alternative Hypothesis H_1: $p \neq 0$, i.e. population correlation coefficient is not equal to zero.

In other words, credit interest rate and credit or loan amounts are correlated.

Third Hypothesis

3) Hypothesis between Interest Rate on Deposit and Interest Rate on Lending

Null Hypothesis Ho: p = 0 i.e. population correlation coefficient is zero. In the words, there does not exist any correlation between interest rate on deposit and interest rate on lending.

Alternative Hypothesis H_1: $p \neq 0$ i.e. population correlation coefficient is not equal to zero.

In other words, there exist correlation between interest rate on deposit and interest rate on lending.

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

This part of study consists of various analyses of interest rate and its effects on deposit and lending amount of sample banks. For example, interest rate on deposit and lending, deposit collection and loan & advance of each selected organization from Nepalese financial system. The study is categorized in three parts, presentation, analysis and interpretation.

4.1 Interest Rate Structure in Nepal

Table 4.1
Structure of Interest Rates

(Percent per Annum)

	Mid-July						
	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Nepal Rastra Bank							
Bank Rate	5.5	5.5	5.5	6.25	6.25	6.25	6.5
Refinance Rates	2.0-4.5	2.0-4.5	1.5-3.0	1.5-3.5	1.5-3.5	1.5-3.5	1.5-3.5
Government Securities							
Treasury Bills (91 days)	2.98	1.47	3.94	3.25	2.77	5.13	6.80
National Saving Certificate	7.0-13.0	6.5-13.0	6.5-13.0	6.0-8.5	6.0-8.5	6.0-7.75	6.0-8.0
Development Bonds	3.0-8.0	3.0-8.0	3.0-8.0	3.0-6.75	3.0-6.75	5.0-8.0	5.0-9.0
Inter bank Rate	4.50	0.71	4.71	2.13	3.03	3.61	3.66
Commercial Banks							
Deposit Rates							
Savings Deposits	2.5-6.0	2.0-5.0	1.75-5.0	2.0-5.0	2.0-5.0	2.0-6.50	2.0-7.5
Time deposits							
1. Month	-	2.0-3.5	1.75-3.5	1.5-3.5	1.5-3.5	1.5-3.75	1.5-5.25
3. months	2.0-5.0	2.0-4.0	1.5-4.0	1.5-4.0	1.5-4.0	1.50-6.75	1.5-6.0
6 Months	2.5-6.0	2.0-4.5	2.5-4.5	1.75-4.5	1.75-4.5	1.75-6.75	1.75-7.0
1 Year	3.0-7.0	2.75-5.75	2.25-5.0	2.25-5.0	2.25-5.0	2.5-6.0	2.5-9.0
2 Years and Above	3.25-7.50	3.0-6.0	2.5-6.05	2.5-6.4	2.5-5.5	2.75-6.75	2.75-9.5
Lending Rates							
Industry	8.50-14.0	8.5-13.5	8.25-13.5	8.0-13.5	8.0-13.5	7.0-13.0	8.0-13.5
Agriculture	10.5-14.5	10.5-13.5	10.0-13.5	9.5-13.0	9.5-13.0	9.5-12.0	9.5-12.0
Export Bills	4.0-12.5	4.0-11.5	4.0-12.0	5.0-11.5	5.0-11.5	5.0-11.5	6.5-11.0
Commercial Loans	7.50-16.0	9.0-14.5	8.0-14.0	8.0-14.0	8.0-14.0	8.0-13.5	8.0-14.0
Overdrafts	10.0-17.0	10.0-16.0	5.0-14.5	6.5-13.5	6.0-14.5	6.5-13.5	6.5-13.5

Cash Reserve Ratio(CRR)							
With NRB	6.0	6.0	5.0	5.0	5.0	5.0	5.5
Cash in Vault	2.0	-	-	-	-	-	-

Sources: Macro Economics Indicators of Nepal, NRB, Research Department, Statistics Division, Mid- July 2009.

(Note: The Average Lending Rate of Any Sector is Calculated by Adding the two Rates and Divided if by for Example for Industrial Sector Average Lending Rate it is Calculated as (8.50 + 14.0) / 2 = 11.25%)

According to the structure of interest rate in presented in table 4.1, both lending and deposit rates were declining during the period 2003 to 2007 mid July. Then it had increasing trend. This case may be due to the interest rate on government securities i.e. treasury bills. According to table, the interest rate of T-bills however has been increased from 2.98% to 3.94% and again decreased from 3.94% to 2.77%. Then the interest rate of T- bill has been increase from 2.77% to 6.80%. As per principle, interest rate T-bills, are the bases of all interest rate many interest rates. Therefore, decline in interest rate may lead to decline in interest of others and vice versa. The interest rate of national saving certificate has been decrease from 7.0% - 13.0% to 6.0% - 8.5 %. Similarly, the interest rate of development bond remains same i.e., 3.0 - 8.0 from 2003 to 2005, than 3.0-6.75 in 2006 & 2007, 5.0-8.0 in 2008, and 5.0-9.0 in 2009.

The inter bank interest rate was 4.50% on 2003 Mid July, but it decreased to 3.66% when it came during the mid July of 2009. It seems that Nepalese commercial banks had excess liquidity. Most of commercial bank classified their deposits into two sections saving deposit and time deposits and offered the different interest rates or them. Talking about saving deposit the interest rates ranges from 2.5%-6.0% in the year 2003 but this rate declined to ranges 2.0%- 5.0% when it came to the year of 2007 then it will be increased by 2.0%-7.5% in mid July of 2009. If the mean is taken then the average interest rate on 2003, 2004, 2005, 2006, 2007, 2008 and 2009 are 4.25%, 3.5%, 3.375%, 3.5%, 3.5%, 4.25% and 4.75% respectively. In the same way, the interest rate on time deposits also shows the decreasing trend in 2007 and increasing trend in 2009. In Nepalese economy, time deposits are classified in five categories: 1 month, 3 months, 6 months, 1 year, 2 years and above. In one month time deposits interest rate, the table shows the decreasing in interest, the maximum interest rate ranges was 2.0% to 3.5% in 2004 where as this table has been decreased to 1.5% to 5.25% in 2009. For 3 months time deposit rates, the

maximum interest rate was 2.0%to 5.0% in 2003. Where as, this rate reached to the range of 1.5% to 6% in 2009. Similarly, in the 6 months time deposit rates also showed the decreasing tendency. The lowest range was 2.5 at the beginning but it reached to 1.75% in 2009. In case of 1-year rate, the lowest range fluctuates less than minimum range of it. From figure, it is clear that in 2003, the lowest range rate was 3.0% but this rate falls up o 2.5% when it was in 2009. Nevertheless, there was more fluctuation in maximum range i.e. it increased to 5% from highest 9.0%. During last 2 years and above interest rate, maximum range fell by 2.00% where as the minimum range just by 0.75% during seven years period.

For lending also, the table shows that average interest rate also fell during the seven years period. However, in case of lending there was wide range in maximum and minimum range. The range or spread of maximum rate and minimum rate was low in case of deposit. The lending rate is categorized in five parts: Industry, Agriculture, export bills, commercial loans and overdrafts. Among the entire highest rate was for overdrafts. It the average of all is taken then industrial sector lending rate was 11.25%, 11%, 10.875%, 10.75% ,10.75%,10.0% and 10.75% respectively on past seven years. It shows that on past seven years that interest rate of industry was around 11% on average. Similarly for agriculture sector the average interest rate was 12.5%, 11.75%, 11.5%,11.25% , 11.25%,10.75 and 10.75% respectively on past seven years. This shows that agriculture lending rate was cheaper when it reaches to 2009. For export bills that average rate was 8.25%, 7.75%, 8%, 8.25% ,8.25 %,8025% and 8.75% respectively for commercial loans that average lending rate was 11.75%, 11.75%, 11%, 11% ,11%, 10.75% and 11% respectively and finally for overdrafts it was 13.50%, 13%, 9.75%, 10.5% ,10.25%,10.0% and 10.0% respectively on past seven years.

4.2 Deposit and Interest Rate

In this section, detail study is made on deposit and interest rate of each of the sample banks. For this study, only saving and fixed deposits are consider because current deposit is not paid with interest.

Prior to entering into the main topics, it is preferable to take glance on the interest rate structure on different types of deposits. This is essential because the interest rates are generally different in magnitude for every sample banks. Their differences are due to the numerous factors like maturity period, policy of bank, goodwill of organization and so on. In real world government, owned bank and banks with high reputation and goodwill have lower deposit rates. Similarly, finance companies, co-operative and development bank quotes higher interest rate on deposits than commercial banks do.

4.2.1 NABIL Bank Limited. (NABIL)

The general structure of deposit interest rate of NABIL Bank Ltd in seven Fiscal Years is shown below.

Table 4.2

Interest Rate Structure on Deposit of NABIL as on Mid July

Deposit	2003	2004	2005	2006	2007	2008	2009
Saving	2.75	2.5	3.0	2.0	2.0	2.0	2.0
Fixed							
7 Days	-	-	-	-	-	-	-
14Days	2.0	1.75	2.5	2.5	1.75	3.0	-
1 Months	2.75	2.25	3	3	2	3.5	4.0
3 Months	3.25	2.75	3.25	3.25	2.75	6.75	5.0
6 months	3.75	3	3.5	3.5	3.0	6.75	6.0
1 year	4.25	3.50	4.0	4.0	3.5	5.0	8.0
2 yrs / above	4.75	4.0	4.0	4.25	4.25	6.5	8.5
Whole Mean	3.35	2.82	3.32	3.21	2.75	4.79	5.58
Fixed Deposit Mean	3.45	2.87	3.37	3.41	2.87	5.25	6.3
Std. Deviation	Whole mean =0.9865%			Fixed deposit mean =1.22%			

Source: Banking and Financial Statistics: 45-52, NRB

From the above table 4.2, the deposit interest rates of NABIL on different time period are fluctuating. There is decreasing tendency of interest rate to 2007 then increasing tendency of interest rate. The interest rate on savings deposit in the beginning year was 2.75% and decreased to 2% in 2009. Here, we can notice 27.27% reduction during past 7 years. The bank quotes the interest rate of fixed deposit in different short term period like 7 Days, 14 Days,1 months, 2 months, 3 months, 6 months, 1 year and above 2 years. During seven

year period, In first five year the reduction percentage of fixed deposit for 14 Days,1 months, 2 months, 3 months, 6 months, 1 year and above 2 years were 12.50%, 27.27%, 15.38%, 20%, 22.22% and 15% respectively. Then 2008 and 2009 the fixed deposit interest rate had increasing trend. The fixed deposit mean is 3.45 in 2003, decreasing to 2.87 in 2004, and then increasing to 3.37 in 2005, again increased to 3.41 in 2006. It then significantly decreased to 2.88 in 2007 but reached at 5.25and 6.3 in 2008 and 2009.

The whole mean also show the similar trend to fixed deposits where it is highest at 5.58 in 2009 after facing significant drop at 2.87 in 2007. The deviation is measured by standard Deviation, which is 0.9865% of whole mean and 1.22% of fixed deposit mean each year interest rate.

Correlation Coefficient, Coefficient of Determination and t-statistic of NABIL

The correlation coefficient between saving deposit interest rate and saving deposit amount and fixed deposit interest rate and fixed deposit amount of NABIL bank is as follows.

Table 4.3

Relationship between Interest Rate and Deposit Amount of NABIL

Year(1)	**Saving Deposit Interest Rate (2)**		**Saving Deposit Amount (in million) (3)**	**Fixed Deposit Interest Rate (4)**		**Fixed Deposit Amount (in million) (5)**
2003	2.75		5237.4	3.45		2552.6
2004	2.5		5994.1	2.87		2310.6
2005	3.0		7026.4	3.37		2078.6
2006	2.0		8770.8	3.41		3450.2
2007	2 0		10187.4	2.875		5435.2
2008	2.0		12159.97	5.25		8464.1
2009	2.0		14620.4	6.3		8310.7
Correlation	r_{23}= -0.7799			r_{45} = 0.8360		
Coe. of Det.	r^2_{23}=0.6082			r^2_{45}=0.6988		
t-statistic	t-cal = 2.7861	t-tab = 2.571	Significant	t-cal = 3.4062	t-tab = 2.571	Significant

Source: Banking and Financial Statistics: 45-52, NRB

Figure 4.1

Deposit Amount of NABIL During Different Fiscal Year

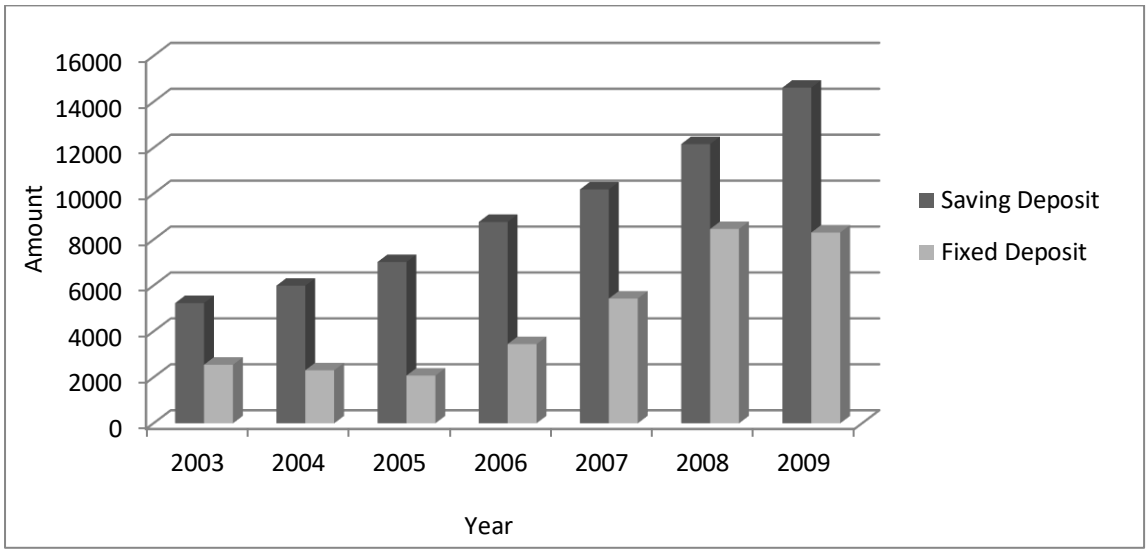
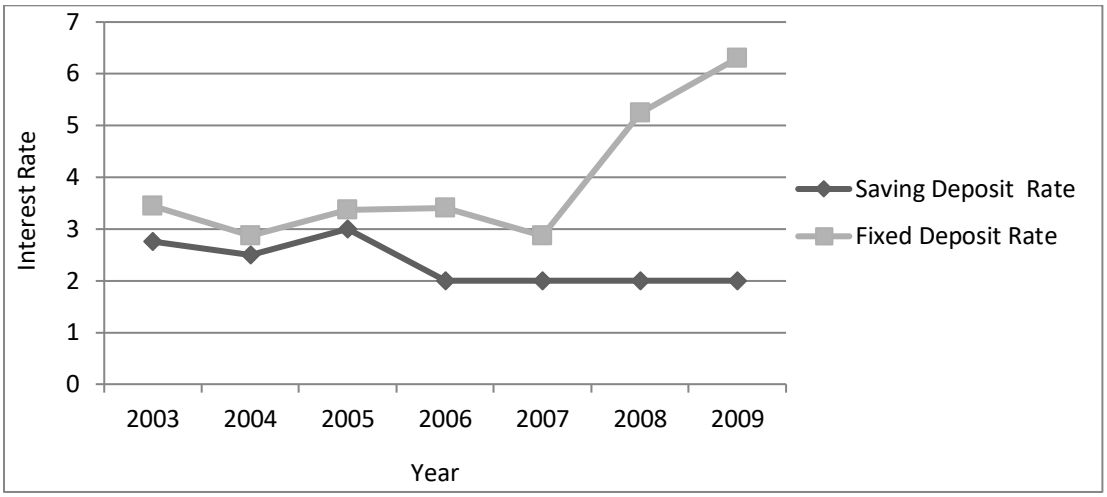


Figure 4.2

Interest Rates of NABIL on Saving and Fixed Deposit



The table 4.3 indicates the total amount of fixed deposit and saving deposits and the interest rates offered on such deposits by NABIL on seven years starting from FY 2003 to FY 2009. The table portrays that the saving deposit interest rate has been decrease by greater magnitude. Saving deposit amount has been in increasing order. However, the case of fixed deposit interest rate is different and the case for fixed deposit is somewhat different. Up to 2003, 2004, 2005 and 2006 to 2007 the interest rate and deposit amount of fixed deposit is also not supporting substitution theory. It indicates that with decrease in interest rate, fixed deposit amount increase and vice-versa.

According to table 4.3, the interest rate on saving deposit has been decreased from 2.75 to 2 during seven FYs. In 2005, the interest rate on saving deposit is increase by 3% then the declining tendency is small. In the same period the deposit amount was Rs 5237.4 million but this amount increases to Rs 14620.4 million.

Similarly for fixed deposit, the table 4.3 show that the total amount of fixed deposit and interest rate on fixed deposit offered by NABIL on seven consequent FYs started from FY 2003 to FY 2009. The table reveals that average fixed interest rate has been decreased from FY 2003 to 2009 and increased in FY 2005 and 2006 then decreased in FY 2007 and increased to FY 2008and 2009. The table shows that in the FY 2003, there is no effect on fixed deposit amount by the declination of interest rate but after the FY 2003, decrease in interest rate also decreases of fixed deposit amount and vice versa. In this regards, the substitution effect holds true in the case of fixed deposit. To verity the above trend, it is necessary to calculate the correlation and t-statistics. If correlation coefficient is calculated for saving deposit and deposit amount, then it is r23 = -0.7799. The high negative correlation coefficient indicates that they have inverse relationship among each other. Decrease in interest rate is fallowed by on increase in saving deposit amount and vice versa. The coefficient is determination between these two variables r_{23}^2 = 0.6082 which means that total variation in dependent variable (saving deposit amount) has been explained by independent variables interest rate to the enters 60.82% and remaining is the effect of other factors. At last, the value of t- statistics for saving deposit and saving interest is found to be 2.7861 ($t_{cal=}$ 2.7861). The tabulated value for this condition at 5%, level of significance with 5 degree of freedom is 2.571. it means that in this case t-calculated is greater then t –tabulated. So alternative hypothesis is accepted. This means that there is significant correlation between saving deposit and interest rate.

Similarly for fixed deposit, the calculated value for t is 3.4062 (t – cal = 3.4062). This value is greater than t – tabulated. Therefore, in this case, the magnitude of correlation coefficient is highly significant.

4.2.2 Bank of Kathmandu (BOK)

As similar to previous part, it is better to present the general interest rate structure before entering to the main analysis. The interest rate structure for BOK on saving and fixed deposits for past seven year FYs are presented on the table 4.4

Table 4.4

Interest Rate Structure on Deposit of BOK

Deposit	2003	2004	2005	2006	2007	2008	2009
Saving	4.25	2.75	2.5	2.5	2.25	2.25	2.25
Fixed							
7 Days	2.5	2.0	1.5	1.5	1.5	2.0	2.0
14Days	3.0	2.5	2.0	2.0	2.0	2.5	2.5
1 Months	3.5	3.0	2.5	2.5	2.5	3.0	3.0
3 Months	4.0	3.5	3.0	3.0	3.0	3.5	3.5
6 months	4.5	4.0	3.5	3.5	3.25	4.0	4.0
1 year	5.0	4.5	4.5	4.5	3.75	5.0	5.0
2 yrs / above	5.0	4.75	5.25	5.25	4.25	5.5	5.5
Whole mean	4.03	3.37	3.09	3.09	2.81	3.47	3.47
Fixed deposit mean	4.0	3.46	3.17	3.17	2.89	3.64	3.64
Std. Deviation	Whole Mean = 0.3786			Fixed Deposit Mean = 0.3466			

Source: Banking and Financial Statistics: 45-52, NRB

The table 4.4 portrays the interest rate of BOK on saving and fixed deposits. All the interest rate on deposit is on decreasing trend except in FY 2008 and FY 2009. The interest rate on saving deposit shows that it was 4.25 and decrease to 2.75 in FY 2004, it again fall to 2.5 in 2005 and 2006 and finally interest rate on saving deposit declined to 2.25 in 2007 to onward. This is 47.06% reduction during 7-year period. Likewise, the interest rate of fixed deposit also decreases during the first five-year then it also increase. The average interest rate for fixed deposit account is 4.0, 3.46, 3.17, 3.17, 2.8, 3.64 and 3.64 for FY 2003 to FY 2009 respectively. The deviation is measured by standard deviation of whole mean is 0.3786 and fixed deposit mean is 0.3466 of each year interest rate.

Correlation Coefficient, Coefficient of Determination and t-statistics of BOK

The correlation coefficient between saving deposit interest rate and saving deposit amount and fixed deposit interest rate and fixed deposit amount of BOK is as follows.

Table 4.5

Relationship between Interest Rate and Deposit Amount of BOK

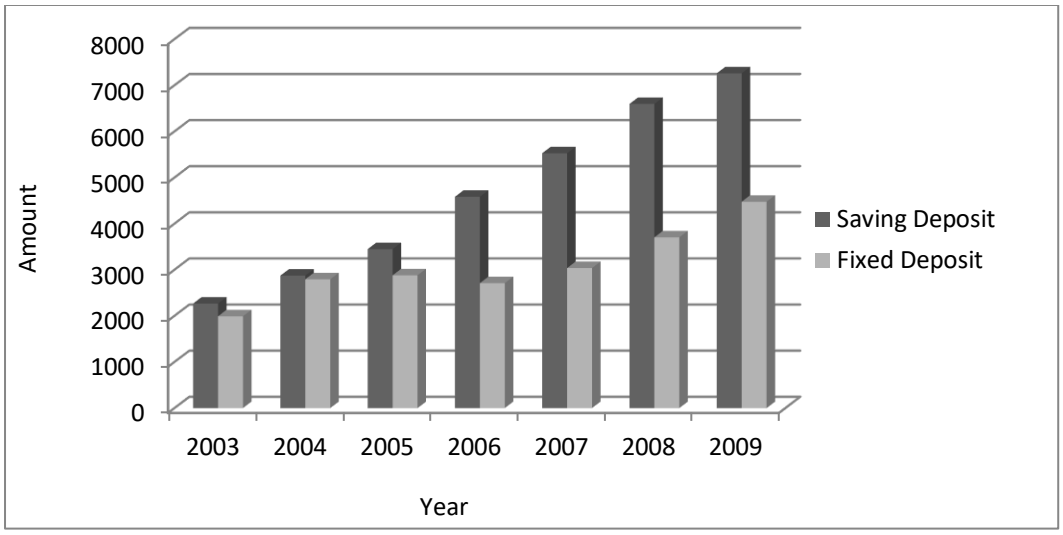
Year (1)	Saving Deposit Interest Rate (2)	Saving Deposit Amount (in million) (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amount (in million) (5)
2003	4.25	2267.3	4.0	1991.1
2004	2.75	2873.8	3.46	2793.7
2005	2.5	3447.5	3.179	2878.9
2006	2.5	4582	3.179	2709.8
2007	2.25	5526.8	2.89	3037.2
2008	2.25	6596.1	3.64	3703.2
2009	2.25	7260.3	3.64	4474.6
Correlation	r_{23}= -0.9063		r_{45} =0.0378	
Coe. of Det.	r^2_{23} =0.8214		r^2_{45}= 0.0014	
t-statistic	t-cal= 4.795	t-tab = 2.571 Significant	t-cal = 0.0846	t-tab = 2.571 Insignificant

Source: Banking and Financial Statistics: 45-52, NRB

In table, no 4.5 saving amount deposit rates are arranged in systematic way from FY 2003 to FY 2009. The table shows that interest rate of saving deposit has been decreased by greater magnitude. Nevertheless, the fixed deposit interest rate seems increasing till 2008 and constant in 2009. Here saving deposit amount and saving deposit interest rate are moving in opposite direction that is decreasing (constant) interest rate increase the amount of deposit and vice- versa. There fore they should have negative relationship. This indicates that the condition for BOK is also opposite to the substitution theory.

Figure 4.3

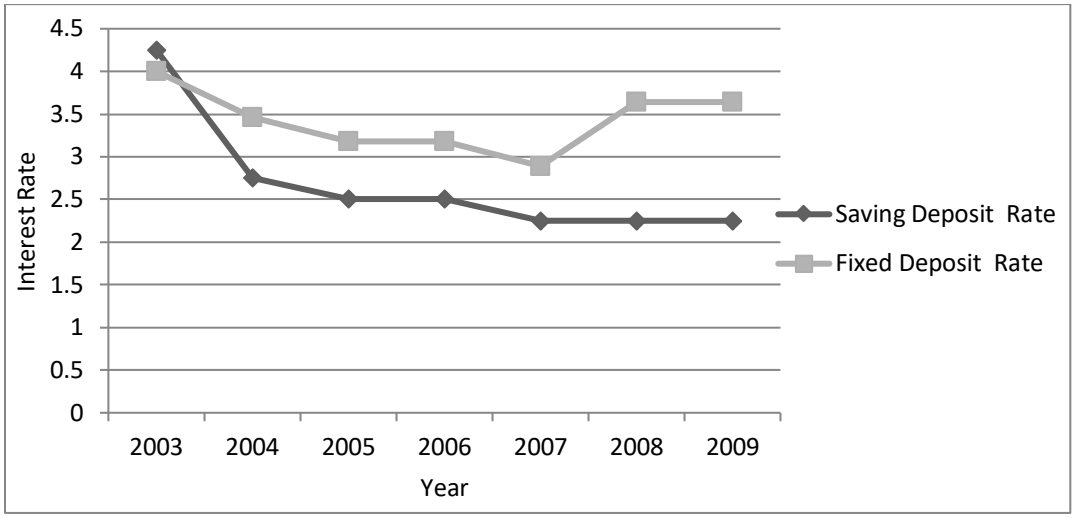
Deposit Amount of BOK During Different Year



The figure shows that BOK collected more funds on fixed deposit in last seven FYs.

Figure 4.4

Interest Rates of BOK on Saving and Fixed Deposit



The value for correlation between saving deposit and interest rate is -0.9063 (r23= -0.9063). This is high degree of negative correlation. It means that during the last seven fiscal years there was share increase in saving deposit amount even though there was share decline in the saving interest rates. The coefficient of determination r^2_{23} is 0.7721. Similarly, the calculated value for t is 4.795 for saving account. The value of tabulated t at 5 degree of freedom and 5% level of significance is only 2.571. So for saving deposit t-cal > t-tab, and hence alternative hypothesis is accepted. It means that there is significant

relationship between two variables (deposit amount and interest rate). It means saving deposit keeps increasing when the saving deposit rates goes falling down.

In same manner fixed deposit the value of correlation coefficient is r_{45} = 0.0378 which indicates that the two variables have low degree positive correlation relationship. In other words, when increment occurs on one variable then there appears increment on other variables but in low magnitude. To identify the significance or insignificance of this correlation, it is necessary to calculate the value of t-statistics. The calculated value at t is 0.0846. Similarly, the tabulated value for t is 2.571, which is less than calculated t. As a result, null hypothesis is accepted. It means correlation coefficient is insignificant. Thus from the both study it reveals that substitution effect is applicable for BOK. That means both interest rate and deposit amount variables of BOK are not correlated.

4.2.3 Himalayan Bank Limited (HBL)

The general interest rate structure for HBL for saving deposit and fixed deposits during past seven fiscal year is as follows.

Table 4.6
Interest Rate Structure on Deposits of HBL

Deposit	2003	2004	2005	2006	2007	2008	2009
Saving	3.75	3.75	2.75	2.0	2.0	2.0	2.25
Fixed							
7 Days	-	-	-	-	-	-	-
14Days	2.3	2.3	1.75	1.75	1.75	2.0	2.50
1 Months	3.3	3.3	2.0	2.0	2.0	2.25	3.25
3 Months	3.75	3.75	2.5	2.5	25.5	2.5	3.75
6 months	4.0	4.0	3.0	3.0	3.0	3.25	4.50
1 year	5.25	5.25	3.75	3.75	3.75	5.5	6.5
2 yrs / above	5.75	5.75	3.75	3.75	3.75	5.5	8.75
Whole mean	4.01	4.01	2.78	2.67	2.67	3.29	4.50
Fixed deposit mean	4.05	4.05	2.79	2.79	2.79	3.5	4.875
Std. Deviation	Whole mean =0.6986			Fixed deposit mean =0.7551			

Source: Banking and Financial Statistics: 45-52, NRB

From table 4.6 shows the deposit interest rate of HBL in seven different FYs. Interest rate of saving deposit of HBL is highest of all year at 3.75 in 2004. Then it will decreasing trend in 2008 then increase by 2.5 in 2009. During the first period out the

seven FYs, the declining rate of average interest rate is fast; around one percentage point every year then in 2009, the interest rate structure will be increased. The average interest rate is 4.01 in 2003 but it was 4.01, 2.79, 2.68, 2.68, 3.29 and 4.5 in 2004, 2005, 2006, 2007, 2008 and 2009 respectively. It means that decline speed of deposit interest rate of HBL slowed down in FY 2003 to 2007 then the interest rate will increasing in FY 2008and 2009. The deviation is measured by standard deviation of whole mean is 0.6986% and fixed deposit mean is 0.7551% each year interest rate.

Correlation Coefficient, Coefficient of Determination and t-statistics of HBL

The correlation coefficient between saving deposit interest rate and saving deposit amount and fixed deposit interest rate and fixed deposit amount of HBL is as follows.

Table 4.7

Relationship between Interest Rate and Deposit Amount of HBL

Year (1)	**Saving Deposit Interest Rate (2)**	**Saving Deposit Amount (in million) (3)**	**Fixed Deposit Interest Rate (4)**	**Fixed Deposit Amount (in million) (5)**
2003	3.75	10840.8	4.05	5880.7
2004	3.75	11719.7	4.05	6043.7
2005	2.75	12852.4	2.79	6364.3
2006	2.0	14582.8	2.79	6350.2
2007	2.0	15784.7	2.79	8201.1
2008	2.0	17972.4	3.5	6423.8
2009	2.25	20061.0	4.875	6377.1
Correlation	r_{23}= -0.7798		r_{45} =-0.4713	
Coe. of Det.	r^2_{23}= 0.6081		r^2_{45}=0.2221	
t-statistic	t-cal= 2.785	t-tab = 2.571 Significant	t-cal = 1.194	t-tab = 2.571 Insignificant

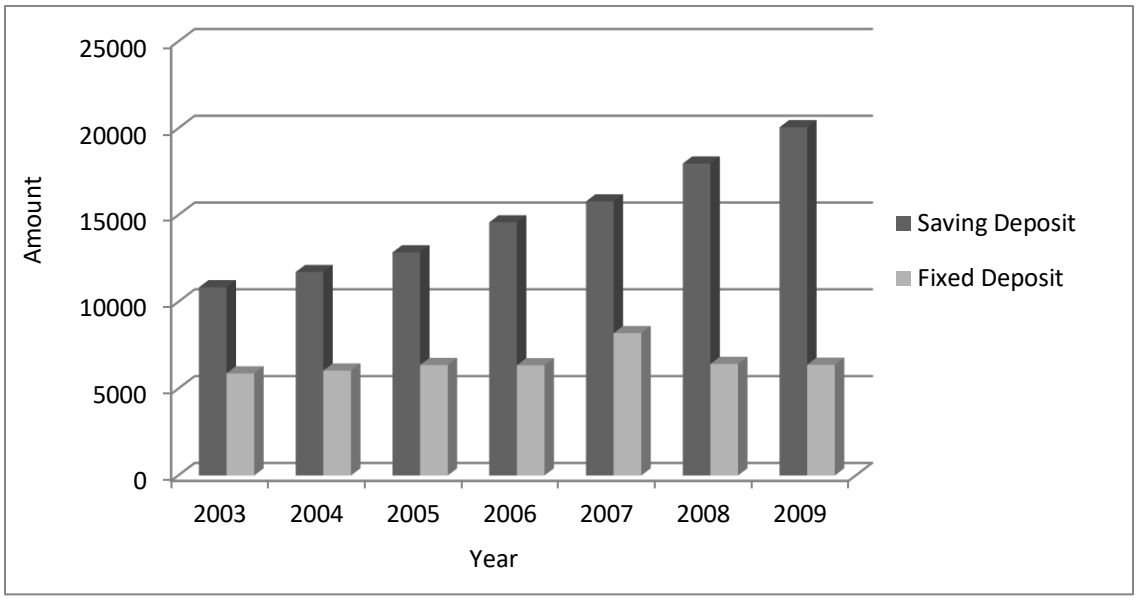
Source: Banking and Financial Statistics: 45-52, NRB

The table 4.7 shows the amount of saving deposit and its interest rate as well as amount of fixed deposit and its interest rate for seven FYs. The table indicates that, in one hand deposit rates are declining where as in other hand deposit amount is increasing in every fiscal years covered by the study. This suggests that interest rate and deposit amount may

have negative relationship i.e. when one variable is found to be increased, other variable is found to be decreased and vice-versa. This situation can be revealed in figure 4.6 in following ways.

Figure 4.5

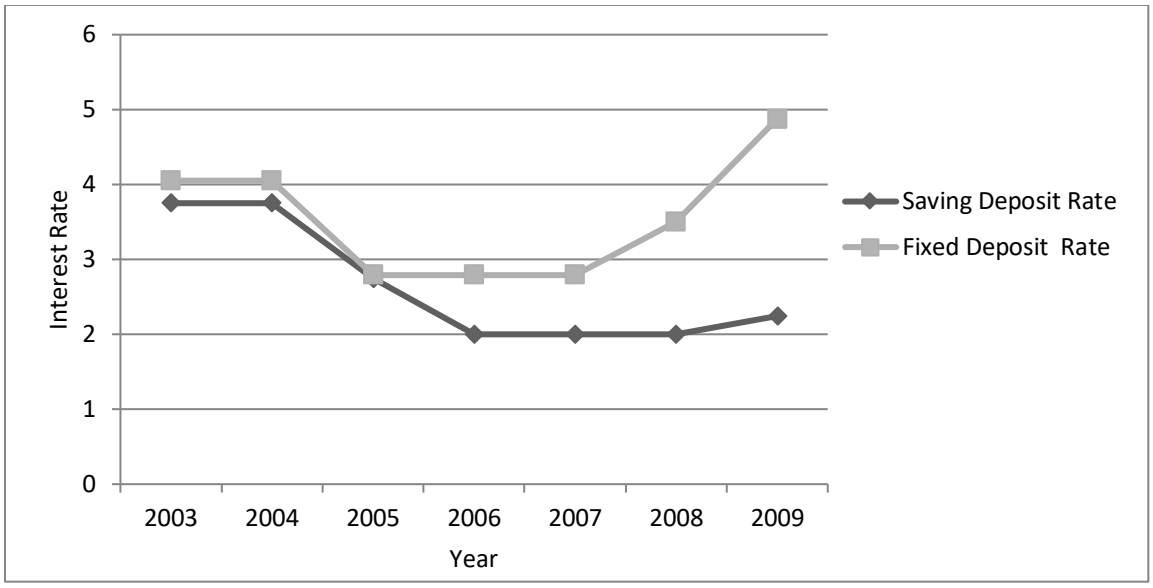
Deposit Amount of HBL During Different Year



The figure 4.5 shows saving deposit amount is continuously rising each year but fixed amount is seems to grow each year with some fluctuation. It means that there is rise and fall for fixed deposit amount. Similarly the interest rate of fixed deposit and saving can also shown on figure 4.6

Figure 4.6

Interest Rates of HBL on Saving and Fixed Deposit



To quantify the exact relationship between interest rate and deposit amount, it is necessary to calculate the correlation coefficient. The correlation coefficient of saving deposit amount and its interest rate r_{23} = -0.7798. It means that these two variables have very high negative relationship. However, the two variables do not have direct relationship but correlation coefficient tells that increase in one variable result the decrease in one variable result the decrease in other variables. The case is similar to fixed deposit also.

The correlation coefficient for fixed deposit rate and amount r_{45} is - 0.4713. This is low degree of negative correlation. It means that increase in one variable result the decrease in other variables but in low magnitude. In other words, if one variable increases by one percentage, then other variable decrease by 0.47%. There fore both saving and fixed deposit, the case is against the substitution effect. In other words, increase in interest rate should be followed by increase in deposit amount. The coefficient of determination of correlation coefficient of saving deposit r^2_{23} is 0.6081 which indicates that the relation between deposit and interest rate is tied up to level of 60.81 percent and remaining other percentage by other factors. In same manner for fixed deposit, the value of coefficient of determination r^2_{45} is 0.2221.

The value of t-statistics for saving deposit and saving interest is found to be 2.785 (t-cal = 2.785). The tabulated value for this condition 5% level of significance with 5 degree of freedom is 2.571. It means that in this case t-calculation is greater than t-tabulated. So alternative hypothesis is accepted, which means that there is highly significant correlation between saving deposit and interest rate. Similarly for fixed deposit, the calculated value for t is 1.1.194 (t-cal=1.194). This value is also smaller than t-tabulated. Therefore, in this case also the magnitude of correlation coefficient is insignificant.

4.2.4 Everest Bank Limited

The general structure of deposit interest rate of Everest Bank Limited (EBL) is show below on the table.

Table 4.8

Interest Rate Structure on Deposit of EBL

Deposit	2003	2004	2005	2006	2007	2008	2009
Saving	4.25	4.5	3.25	3.25	3.25	3.0	3.0
Fixed							
7 Days	-	-	-	-	-	-	-
14Days	3.0	3.0	2.5	2.5	-	-	-
1 Months	3.5	3.5	2.25	2.25	2.75	2.75	2.75
3 Months	4.0	4.0	2.5	3.0	3.0	3.0	3.0
6 months	5.0	5.0	3.0	3.5	3.5	3.5	3.5
1 year	5.5	5.5	3.5	4.0	4.0	5.0	5.0
2 yrs/ above	6.0	6.0	4.0	4.5	4.5	5.5	5.5
Whole mean	4.46	4.5	2.96	3.25	3.39	3.25	3.25
Fixed deposit mean	4.5	4.5	2.92	3.25	3.47	3.29	3.29
Std. Deviation	Whole Mean = 0.5754			Fixed Deposit Mean = 0.5872			

Source: Banking and Financial Statistics 45-52, NRB

The table 4.7 shows the interest rate structure of EBL and with calculated average interest rate on all deposits and standard deviation. The whole interest rate in 2003 is 4.46; it increases to 4.50 in 2004. In FY 2005, it decreases to 2.96. The interest rate is increases in FYs 2006 to 3.25 and again increased to 3.39 decreases to 3.25 in 2008 and 2009. Similarly, the average fixed deposit rate is decreasing up to 2005 and increased in 2006 and 2007 then decreasing trend. The standard deviation of whole mean is 0.5754 and fixed deposit mean is 0.5872 shows the dispersion among the interest with in seven FYs time are whole mean is 0.5754% and fixed deposit mean is 0.5872%. It further signifies that rate is much dispersed from of all deposit.

Correlation Coefficient of Determination and t-statistics of EBL

The correlation coefficient between saving deposit interest rate and saving deposit amount and fixed deposit interest rate and fixed deposit amount of EBL is as follows.

Table 4.9

Relationship between Interest Rate and Deposit Amount of EBL

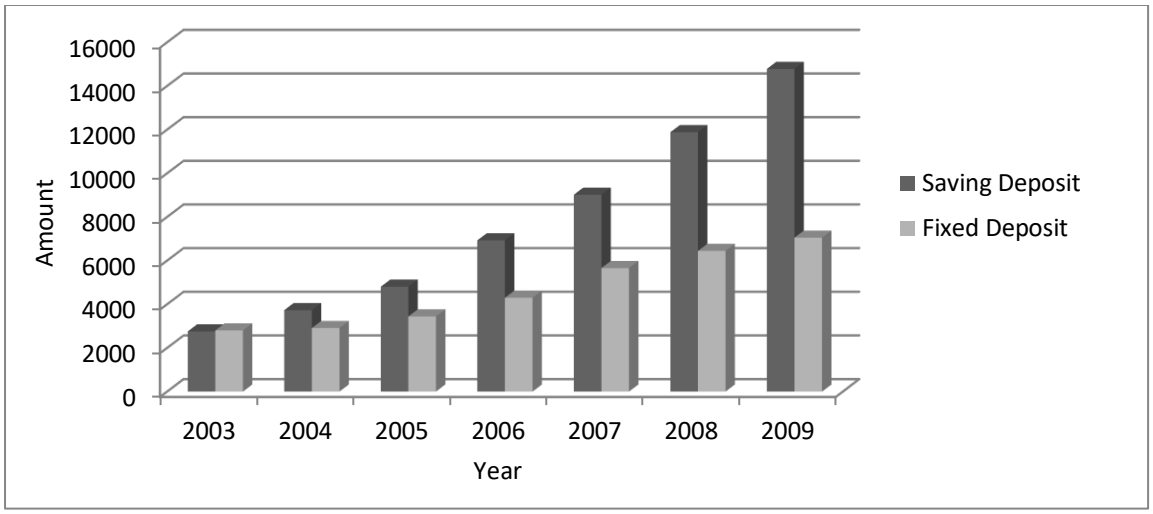
Year (1)	Saving Deposit Interest Rate (2)		Saving Deposit Amount (in million) (3)	Fixed Deposit Interest Rate(4)		Fixed Deposit Amount (in million) (5)
2003	4.25		2758.0	4.50		2803.4
2004	4.50		3730.7	4.50		2914.1
2005	3.25		4806.9	2.92		3444.5
2006	3.25		6929.2	3.25		4298.2
2007	3.0		9018.0	3.55		5658.7
2008	3.0		11883.9	3.29		6446.2
2009	3.0		14782.3	3.29		7049.9
Correlation	r_{23}= - 0.7692			r_{45}=-0.5530		
Coe. of Det.	r^2_{23}=0.5917			r^2_{45}= 0.3058		
t-statistic	t-cal= 2.692	t-tab = 2.571	Significant	t-cal = 1.484	t-tab = 2.571	Insignificant

Source Banking and Financial Statistics 45-52, NRB

The table 4.9 shows that interest rate and deposit amount are moving in opposite direction. To get the exact relation it is necessary to calculate the correlation coefficient and t-test. Here the date shows that both saving and fixed deposits are out of substitution effect to verify it the value of correlation and t-statistics is necessary. However, prior to this it is effective if tabular value can be shown on figure as figure 4.7

Figure 4.7

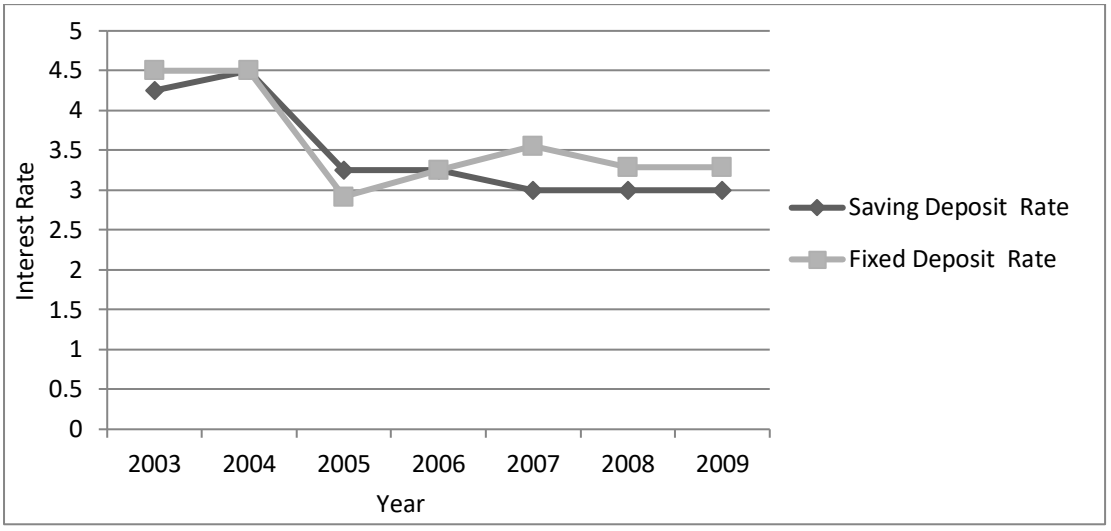
Deposit Amount of EBL During Different Year



Similarly the relationship between interest rate of saving and fixed deposit can shown in figure 4.8

Figure 4.8

Interest Rates of EBL on Saving and Fixed Deposit



The figure 4.7 shows the deposit amount of EBL is in increasing trend. The increasing tendency is high for saving deposit but low for fixed deposit. The trend is increasing slowly. Similarly figure 4.8 shows that both the interest rate of fixed and saving deposits is in decreasing tendency except in FYs 2008 and 2009.

The correlation coefficient for saving deposit and its interest rate is found to be r_{23} = -0.7692, which means that deposit amount and its interest rate have higher degree of

negative correlation. It means increase in one variable result the decrease in other variables. Similarly the coefficient of dependent r^2_{23} = 0.5917, which means that the value of dependent variables is dependent on independent variables to the extent of 59.17%. Similarly the t-test for same show that the calculated value of t is 2.692 (t-cal =2.692). This value is greater than the t-tabulated value (t-tab =2.571) at 5 degree of freedom and 5% level of significance. Therefore, when t-cal > t- tab then H_1 or alternative hypothecs is accepted i.e. the variables are significantly correlated and their relationship is significant.

Similarly for fixed deposit the correlation r_{45} is -0.5530, which is negative with moderate degree of inverse relationship. The t-statistics for fixed deposit shows that its calculated value of t is 1.484, which is smaller than the tabulated value of t i.e. t-cal < t-tab, in such case alternatives hypothesis is rejected. This indicates that the two variables are uncorrelated. The analysis of EBL also shows that substitution effect is not applicable for bank.

4.2.5 Standard Chartered Bank Limited (SCBL)

As similar to previous part, it is better to present the general interest rate structure before entering to the main analysis. The interest rate structure for SCBL on saving and fixed deposits for part seven FYs are as presented on table 4.9.

Table 4.10

Interest Rate Structure on Deposit of SCBL

Deposit	2003	2004	2005	2006	2007	2008	2009
Saving	2.5	2.0	1.75	2.0	2.0	2.0	2.0
Fixed							
7 Days	-	-	-	-	-	-	-
14Days	2.0	1.0	1.0	1.0	1.0	1.0	1.0
1 Months	2.5	2.0	1.5	1.5	1.5	1.5	1.5
3 Months	2.5	1.5	1.5	1.5	1.5	1.5	1.5
6 months	3.0	2.5	1.75	1.75	1.75	1.75	1.75
1 year	3.5	2.25	2.25	2.25	2.25	2.5	2.5
2 yrs / above	4.25	2.5	2.5	2.5	2.5	3.0	3.0

Whole mean	2.89	1.97	1.7	1.75	1.79	1.89	1.89
Fixed deposit mean	2.96	1.96	1.71	1.71	1.71	1.875	1.875
Std. Deviation	Whole Mean =0.3781			Fixed Deposit Mean=0.4126			

Source: Banking and Financial Statistics 45-52, NRB

The above table shows that the average interest rate on all deposits of SCBL with in seven years period is in decreasing trend to 2007 then increasing trend. The rate was 2.89 in the FY 2003 and 1.75 in 2007 and increase to 1.875 to 2008 and 2009. The average interest rates is slowly decreasing from FY 2003 to 2005 but, little bit increase in 2006 by decimals and remain same in FY 2007 and the interest rate increase in 2008 and 2009.. The rate decreased successively to 2.89, 1.97 and 1.72 in the FYs 2003, 2004 and 2005 respectively. The standard deviation of whole mean is 0.3181 and fixed deposit mean is 0.4126 shows that the scatteredness among the average interest rate on all deposits from the mean of whole mean is 31.81% and fixed deposit mean is 41.26% within these seven years time period.

Correlation Coefficient, Coefficient of Determination and t-statistics of SCBL

The correlation coefficient between saving deposit interest rate and saving deposit amount and fixed deposit interest rate and fixed deposit amount of SCBL is as follows.

Table 4.11

Relationship between Interest Rates and Deposit Amount of SCBL

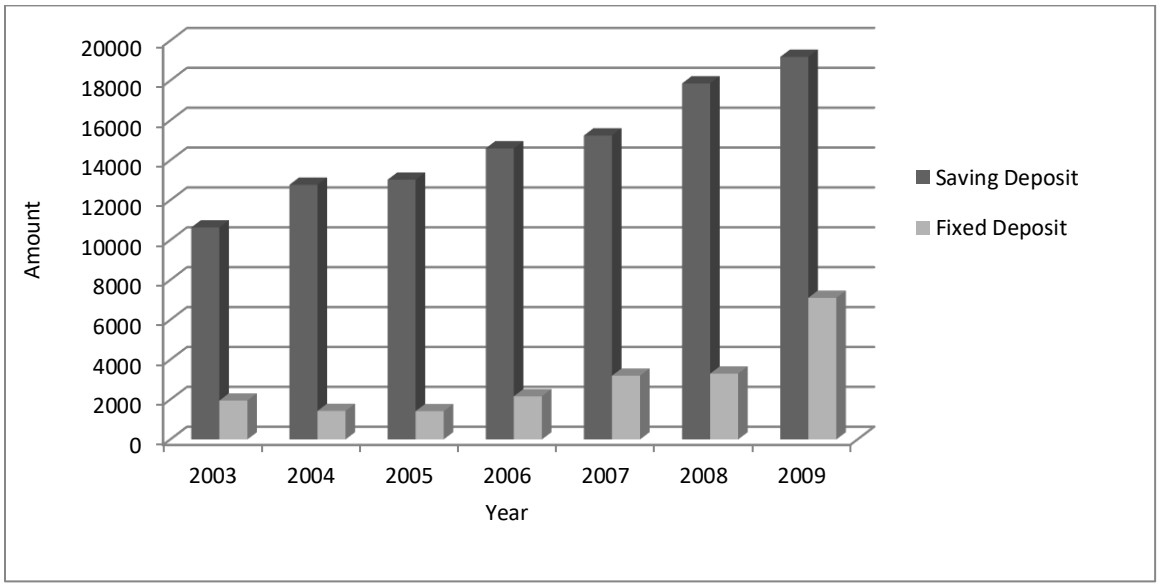
Year(1)	**Saving Deposit Interest Rate (2)**	**Saving Deposit Amount (in million) (3)**	**Fixed Deposit Interest Rate (4)**	**Fixed Deposit Amount (in million) (5)**
2003	2.5	10633.1	2.96	1948.5
2004	2	12771.8	1.96	1428.5
2005	1.75	13027.7	1.71	1416.4
2006	2	14597.5	1.71	2163.3
2007	2	15244.2	1.71	3196.5
2008	2.0	17856.1	1.875	3301.0
2009	2.0	19187.6	1.875	7102.0
Correlation	r_{23}= -0.4048		r_{45}= -0.1620	
Coe. of Det.	$r^2_{23=}$ 0.1639		$r^2_{45=}$ 0.0262	
t-statistic	t-cal= 0.99	t-tab = 2.571	Insignificant	t-cal= 0.367	t-tab = 2.571	Insignificant

Source: Banking and Financial Statistics 45-52, NRB

The table 4.11 also shows saving deposit amount is in increasing trend thought the interest rate is declining trends in 2003, 2004, 2005 then increase the interest to 2006 and constants. However, fixed deposit amount seems in decreasing trend until FY 2005 because of fall in interest rate and slightly increased in FY 2006 on deposit. However, the declining speed of interest rate is quite higher then that declining speed of deposit amount. It means that they move in same direction. These suggest that there is positive relationship but to determine the magnitude of relation. Correlation coefficient should be calculated and to identify the strength or we show these relations on figure 4.9 and 4.10.

Figure 4.9

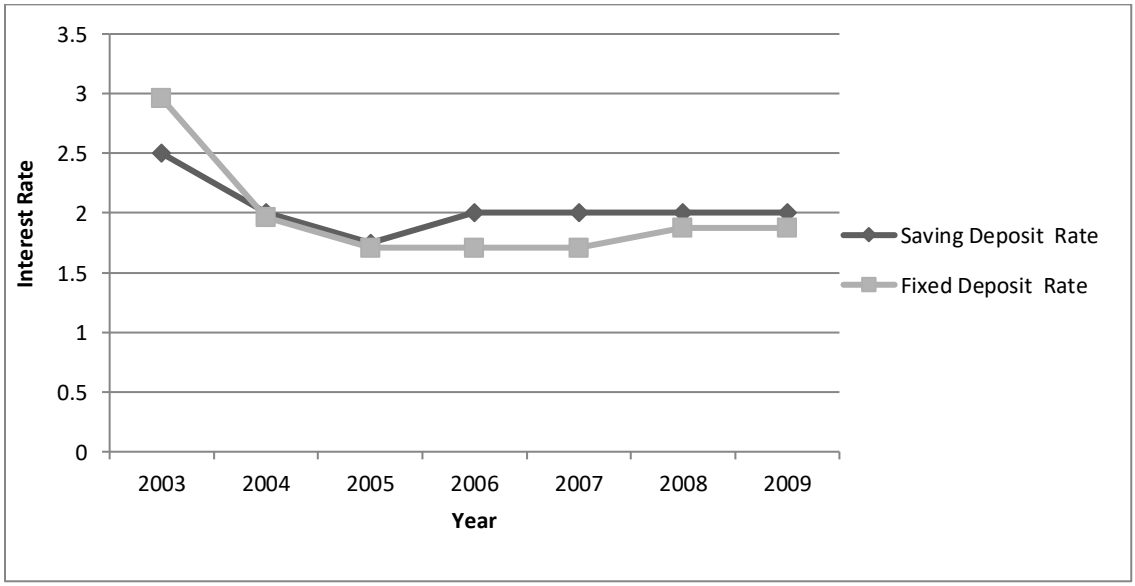
Deposit Amount of SCBL During Different Year



The figure shows that SCBL collected more funds on saving deposit is last seven year rather than fixed deposit. It is clear that SCBL collects few funds from fixed deposit in comparison of saving deposit. Satisfactory collection is done on saving deposit but bank cannot able to collects satisfactory amount of fixed deposit, which is helpful to invest as a long-term debt.

Figure 4.10

Interest Rates of SCBL on Saving and Fixed Deposit



The Correlation coefficient for saving deposit and its interest rate is found to be r_{23} = -0.4048, which means that deposit amount and its interest rate have moderate degree of negative correlation. It means increase in one variable result the decrease in other variables but in low magnitude. Similarly the coefficient of determination, r^2_{23} = 0.1639 which means that the value of dependent variables is dependent on independent variables to the extent of 16.39%. Similarly the t-test for same shows that the calculated value of t is 0.99 (t-cal= 0.99). This value is greater than the tabulated value (t-tab=2.571) at 5 degree of freedom and level of significance. Therefore when t-cal < t-tab, then H_0 or null hypothesis is accepted i.e. the magnitude of correlation coefficient is highly insignificant.

Similarly, the correlation for fixed deposit interest rate and fixed deposit amount, r_{45} is found to be -0.1620. This shows that they have low degree negative correlation. It means that the increase in deposit interest rate result the decrease in fixed deposit but in low magnitude. This relation can be clearly explained by the coefficient of determination, which is 0.0262, means that total variation in interest rate on fixed deposit has been explained by supply of deposits to the extent of 2.62% and remaining 97.38% is the effect of other variables. The t-value for testing the significance of the correlation coefficient between variables is 0.367 (t-cal =0.367). Which is significantly smaller than tabulated t value (t-tab = 2.571) at 5% level of significance with 5 degree of freedom. Since the calculated value is significantly smaller than tabulated value, the conclusion can be drawn that correlation coefficient between variables is insignificant. This means that the correlation between interest rate on fixed deposit amount of SCBL shows the negative correlation, the t-test indicates that there is insignificant correlation between them.

4.3 Analysis of Lending and Interest Rate

This is second area of the analysis where mainly the relationship between lending interest rate and its effect upon lending amount is attempted to study. Generally, when there is higher interest rate (especially lending or credit rates) in the economy people normally borrow lesser amount than the period when lending rate is low. According to theory, when there is low lending rate, then there should be higher amount of borrowing by the

user of fund. Higher amount of borrowing indicates higher investment in the country or higher transaction in trade. This is necessary for the growth of the economy. Therefore, this study tries to explore the relationship between lending rate and lending amount in Nepalese economy.

4.3.1 NABIL Bank Limited (NABIL)

Lending activity of commercial banks can be diversified into different sectors. But according to the publication of Nepal Rastra Bank, Banking and Financial statistics the loan of commercial banks are classified in different sub-sectors like overdraft, export credit, import LC, commercial loan and on. Besides this there are other section (area) when banks provides loan and these areas are placed in the topic of "others". For this study, lending area are categorized as classified by NRB as shown in the table 4.12.

Table 4.12

Lending Rate of NABIL on Different Sectors During Seven Years

Sector	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Overdraft	-	-	-	-	-	-	-
Export credit	11.0	11.0	11.0	11.0	10.5	10.5	10.5
Import LC	11.0	11.0	11.0	11.0	10.5	10.5	12.0
HMG Bond	7.5	7.5	7.5	7.5	7.5	7.5	10.0
BG/CG	9.0	9.0	9.0	9.0	7.5	7.5	11.0
Other Guarantee	10.0	10.0	10.0	10.0	8.5	8.5	-
Industrial Loan	-	-	-	-	-	-	-
Commercial Loan	-	-	-	-	-	-	-
Priority Sector Loan	13.0	13.0	12.0	12.0	11.0	11.0	-
Working Capital	12.0	12.0	12.0	12.0	11.5	11.5	12.0
Hire Purchase	12.0	12.5	12.5	12.0	12.0	12.0	-
Others	13.0	13.0	13.0	13.0	12.0	11.5	12.5
Average Int. Rate (1)	10.94	11	10.89	10.83	10.11	10.05	11.33
Lending Amount (2)	8267.8	8769.7	11360.3	13278.8	15903	21365.1	27589.9
Correlation (r_{12})	-0.0591						
Coe. of Det. ($r_{12}^{2)}$	0.0035						
t-statistics	t-cal= 0.1324		t-tab = 2.571		Insignificant		
Standard deviation	0.4723						

Source: Banking and Financial Statistics 45-52, NRB and Annual Report of NABIL

Above table shows that interest rate on lending on different area are in decreasing trend except 2009. The table shows that the maximum interest rate is 13% in FY 2003 to 2006, minimum rate is 7.5 on FY 2003, 2004, 2005, 2006, 2007 and 2008. This shows that the interest rate declined drastically during the seven FYs period. Generally the productive sector loan rate (like commercial loan, industrial loan, priority sector loan, working capital rate and so on) and non productive sector loan like loan against government bond, BG/CG and so an are decreasing in similar ratios. According to theory in order to induce the investment in the country or expansion of trade, the productive sector loan should be available at cheaper rate. However, the table shows that these sectors loan were somewhat costlier than other non-productive loan. In the case of 2009, the lending interest rates are increasing rate due to inflation, crises of money and effect of competition of commercial banks.

If the average of each fiscal year is taken, then the average lending interest rate was 10.94 (2003), 11 (2004), 10.91 (2005), 10.86 (2006), 10.86 (2007), 11.11 (2008) and 10.5 (2009). The standard deviation for average interest rate was 0.4723, which shows the deviation from mean return. The average rate is also in decreasing trend. The decreasing tendency was not smooth. It means that the rate declined each year with different rate. In preceding year the declination was quite fast where as the declining tendency was little small in later year. This concludes that interest rate is also in decreasing tendency for past few years except in 2009. With agreement to interest rate, the lending amount of NABIL is seen to be in increasing trend. These can be also being present in figure 4.11 and 4.12.

Figure 4.11

Lending Amount of NABIL on During Different Years

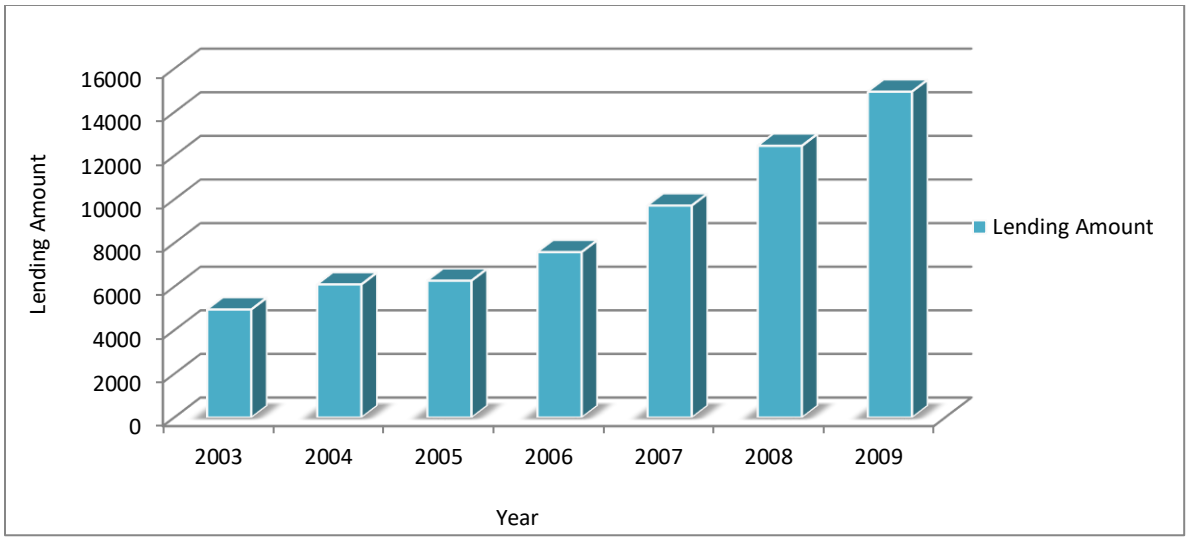
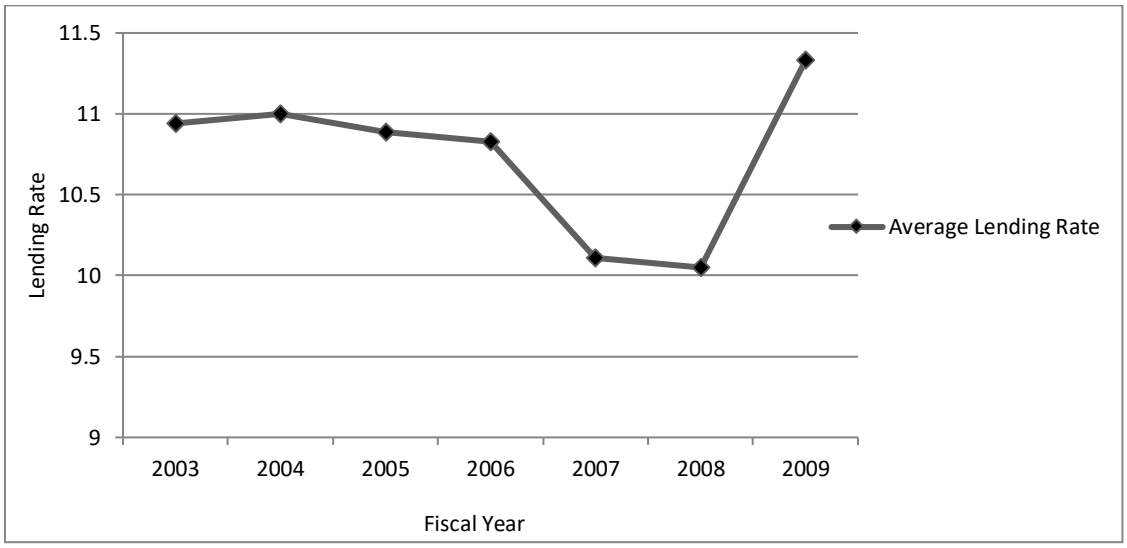

16000
14000
12000
10000
8000
6000
4000
2000
0
Lending Amount
2003
2004
2005
2006
2007
2008
2009
Year
Lending Amount

Figure 4.12

Average Lending Rate of NABIL During Different Years



Correlation coefficient, Coefficient of Determination and t-statistics of NABIL

From table 4.11 the correlation coefficient (simple correlation) between lending rate and lending amount r_{12} is - 0.0591. It is negative correlation. It indicates that increment in one variable result the decrement in other variables but in low magnitude or vice-versa. Decrement in lending interest rate increases the lending amount because people preferred more credit from the bank when bank reduced the lending interest rate. This condition matches with the theory. Similarly the coefficient of determination between two variables $(r_{12})^2$ are 0.0035. It means that the relationship between dependent variable and independent variable is defined up to the extent of 0.035%. The remaining percentage is due to other factors.

Similarly the calculate value for NABIL is 0.1324 (t-cal = 0.1324). This value is less than tabulated value, (t-tab = 2.571) with level of significance 5 and d. f 5. In this condition, H_0 is accepted it means that there is no significant correlation between the two variables. In other words, their relation is in significant. Though the correlation coefficient shows that these two variables have moderate level of correlation but t-statistics verify that their relation is insignificant. In conclusion, the inverse relationship between lending rate and

lending amount is not exactly applicable for NABIL. Now it is clear that the increase in lending amount is not significantly due to decrease in lending interest rate.

4.3.2 Bank of Kathmandu (BOK)

BOK grants credit on different area like commercial loan, overdraft, working capital, hire purchases and so on. The sector where BOK supplied credit during last seven FYs and the corresponding interest rate as well as average interest rate during that period is as follows.

Table 4.13

Lending Rate of BOK on Different Sectors During Seven Years

Sector	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Overdraft	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Export credit	10.5	10.5	10.5	10.5	10.5	10.5	12.5
Import LC	12.5	12.5	12.5	12.5	12.5	12.5	12.5
HMG Bond	8.0	8.0	8.0	8.0	8.0	8.0	10.0
BG/CG	10.5	10.5	-	10.5	10.5	10.5	10.5
Other Guarantee	10.5	8.5	8.5	8.5	8.5	8.5	-
Industrial Loan	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Commercial Loan	13.5	13.5	13.5	13.5	13.5	13.5	-
Priority Sector Loan	14.0	-	-	-	-	-	-
Working Capital	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Hire Purchase	13.0	12.0	11.0	11.0	11.0	11.0	12.0
Others	13.5	13.5	13.5	13.5	13.5	13.5	12.5
Average Int. Rate (1)	12.16	11.72	11.75	11.63	11.63	11.63	12.22
Lending Amount (2)	4956.2	6104.9	6278.5	7586.2	9722.1	12462.6	14946.0
Correlation (r_{12})	0.1675						
Coe. of Det.($r_{12}^{2)}$	0.0281						
t-statistics	t-cal=0.3799		t-tab = 2.571		Insignificant		
Standard deviation	0.2387						

Source: Banking and Financial Statistics 45-52, NRB and Annual Report of BOK

The table 4.13 shows the lending interest rate structure of BOK on seven FYs on different sectors. From table, the interest rates are somewhat greater in value as compared to the interest rate of NABIL. It means that there was some difference in interest rate between two private banks. Fore example in hire purchase and other NABIL quoted 12 and 13%

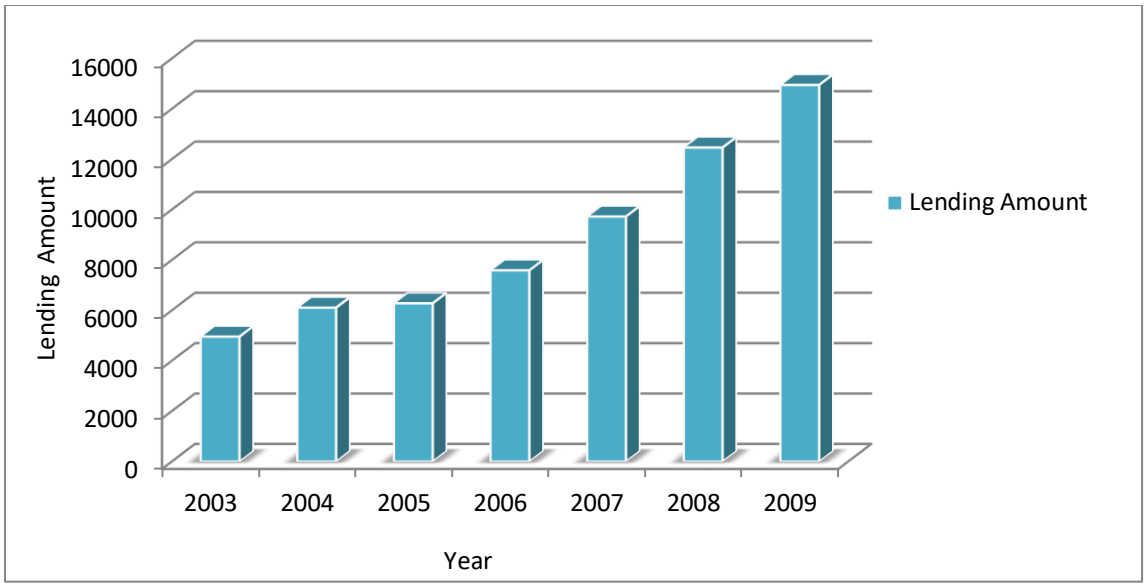
per annum respectively On FY 2003 where as in the same period BOK quoted the interest rate of 13.0 and 13.5 respectively. Similarly, the average interest rate of BOK is also higher then average rate of NABIL. These also show the difference in interest rate between two private banks.

Above the table shows, that the maximum rate is 14.0% in FY 2003 and minimum rate is 8.0% in FY 2003,2004,2005,2006, 2007 and 2008. The average interest rate is declining slowly during the seven FYs except 2009. This phenomenon can be seen clearly with the study of average interest rate. The average interest rate for FYs 2003, 2004, 2005, 2006, 2007, 2008 and 2009 are 12.16, 11.72 11.75, 11.63, 11.63, 11.63 and 12.22 respectively. The average interest rate shows that the rate has fallen at steady rate. During the period, hire purchase rate are decreasing movement in 2003 to 2008 except 2009, due to crisis of money, worldwide inflation. Export credit, and government bond are also constant 2003 to 2008 then increase in 2009. The commercial loan and industrial loan have not changed in sample period.

Here lending amount are increasing every year with a decline in interest rate. To quantify this relationship, it is necessary to calculate correlation coefficient and t- statistics. But prior to this it is fruitful if the trend of lending interest rate and lending amount is shown as in figure no 4.13 and 4.14.

Figure 4.13

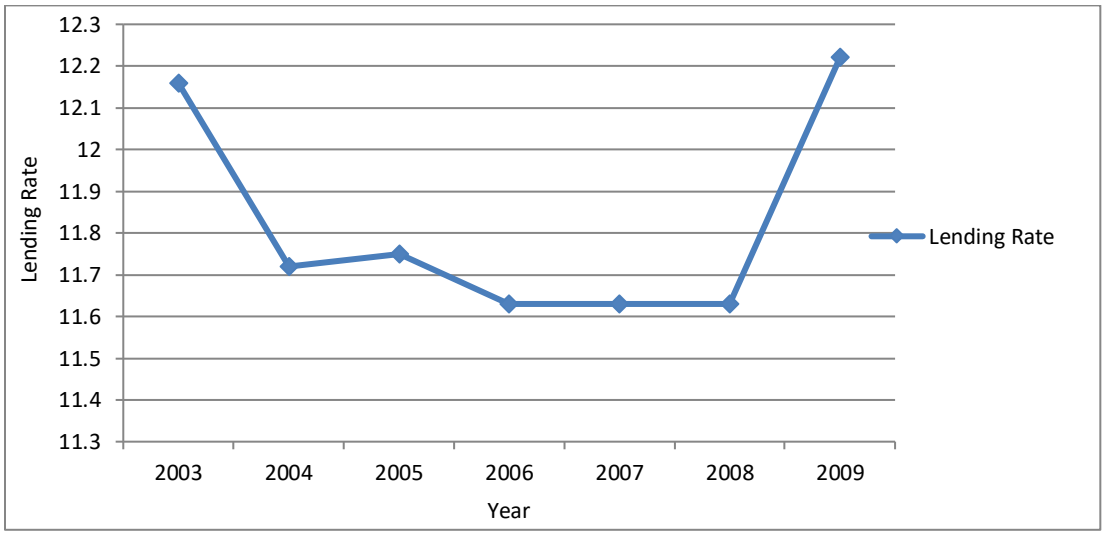
Lending Amount of BOK on During Different Years



In this way, the graph of average interest rate of last seven FYs is as follows:

Figure 4.14

Average Lending Rate of BOK During Different Years



Correlation Coefficient, Coefficient of Determination and t- statistics of BOK

From table 4.12 the correlation coefficient (simple correlation) between lending rate and lending amount r_{12} is 0.1675. According to our classification, this negative correlation is of "moderate degree". In this case, it is clear that interest rate on lending and lending amount has inverse relationship. It means they move in opposite direction i.e. increase in lending rate result decrease in total lending amount in low magnitude. This situation matches with the actual theory. According to the theoretical concept of lending rate and lending amount people prefer or use more money when the market interest rate is low in the market. The simple determination of correlation coefficient (r^2_{12}) is 0.0225 when total lending amount is taken as dependent variable and lending rate as independent variables then 2.25% of total variation in dependent variable is explained by lending rate and remaining percentage is due to the effect of other variables in the economy.

Test of significance of correlation coefficient between lending rate and lending amount also verify the fact. The calculated value of t-statistics is 0.339 (t-cal= 0.339). This value is less than tabulated value, t-tab= 2.571 with level of significance 5 and d. f 5. In this condition, H_0 is accepted. It means that there is no significant correlation between the two variables. In other words, their relation is insignificant. Though the correlation coefficient

shows that these two variables have moderate level of correlation, but t-statistics verify that their relation is insignificant. In conclusion, the inverse relationship between lending rate and lending amount is not exactly applicable for BOK. Now it is clear that the increase in lending amount is not significantly correlated due to decrease in lending interest rate.

4.3.3 Himalayan Bank Limited (HBL)

The sector where HML granted its credit during last seven FYs and their Corresponding interest rate and lending amount are presented in the table 4.14.

Table 4.14

Lending Rate of HBL on Different Sectors During Seven Year

Sector	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Overdraft	13.25	13.25	12.0	12.0	10.0	10.0	10.75
Export credit	9.5	9.5	8.75	8.75	8.75	9.75	10.75
Import LC	12.25	12.25	11.75	11.75	9.5	9.5	10.25
HMG Bond	8.0	8.0	6.0	6.0	6.5	7.0	8.0
BG/CG	10.5	10.5	9.25	9.25	8.0	8.0	10.0
Other Guarantee	10.5	10.5	-	-	-	11.0	-
Industrial Loan	13.0	13.0	12.75	12.75	-	11.5	-
Commercial Loan	13.25	13.25	12.5	12.5	-	-	-
Priority Sector Loan	13.0	13.0	12.25	12.25	10.0	-	10.0
Working Capital	13.0	13.0	13.0	-	-	-	-
Hire Purchase	13.0	13.0	11.5	11.5	9	9.5	12.0
Others	15.75	15.75	13.5	13.5	12	10.5	11.25
Average Int. Rate (1)	12.08	12.08	11.20	11.025	9.21	9.63	10.37
Lending Amount (2)	10894.2	13081.7	13245.0	15516.0	17672.0	20179.6	25519.5
Correlation (r_{12})	-0.6842						
Coe. of Det. $_{12}^{2)}$	0.4681						
t-statistics	t-cal=-2.0977		t-tab = 2.571		Insignificant		
Standard deviation	2.4226						

Source: Banking and Financial Statistics 45-52, NRB and Annual Report of HBL

The table 4.14 shows the interest rate of HBL on lending on seven fiscal years granted in different sectors. The average lending interest rate of HBL on 2003 was 12.08% and on FY 2009 was 10.37%. This is 14.16% reduction in average lending interest rate during

seven-year period. Conversely, the lending amount of HBL is seen to be in increasing trend. Lending amount of HBL have been raises to 25519.5 million but BOK lending amount raises only up to 14946.0 million respectively in FY 2009. Above study, shows HBL have more lending amount then BOK. This may be due to that HBL lending rate more in comparison to BOK.

Thus lending amount of HBL increases with a decline in lending rate of HBL. This relationship match with the theory. To quantify this relationship, it is necessary to calculate correlation coefficient and t- statistics. Prior to this, it will be helpful if the trend of lending interest rate and lending amount are presented on graph no 1.15 and 4.16 as bellows.

Figure 4.15

Lending Amount of HBL on During Different Years

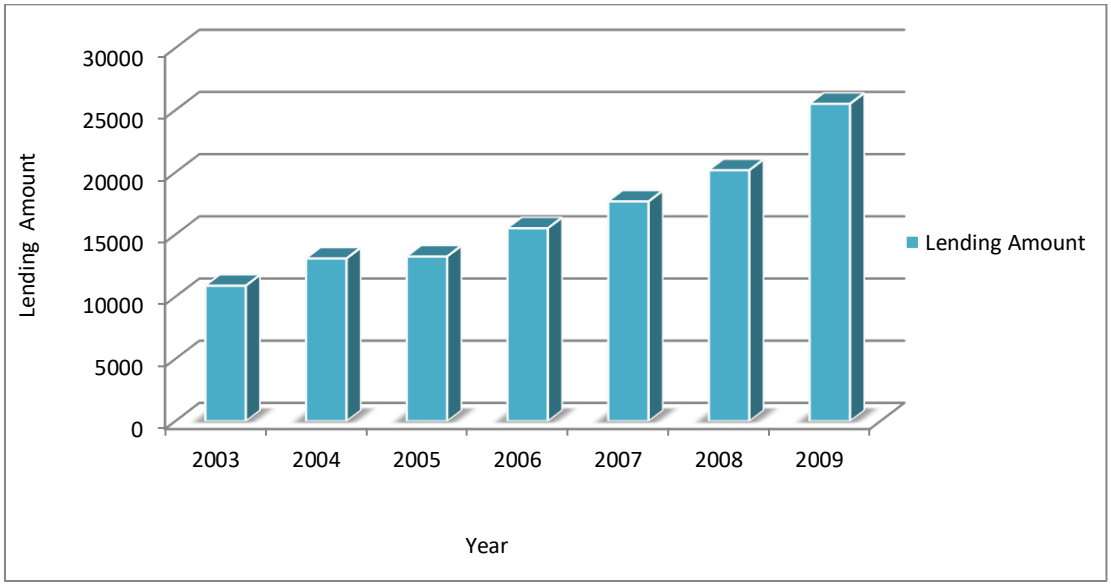
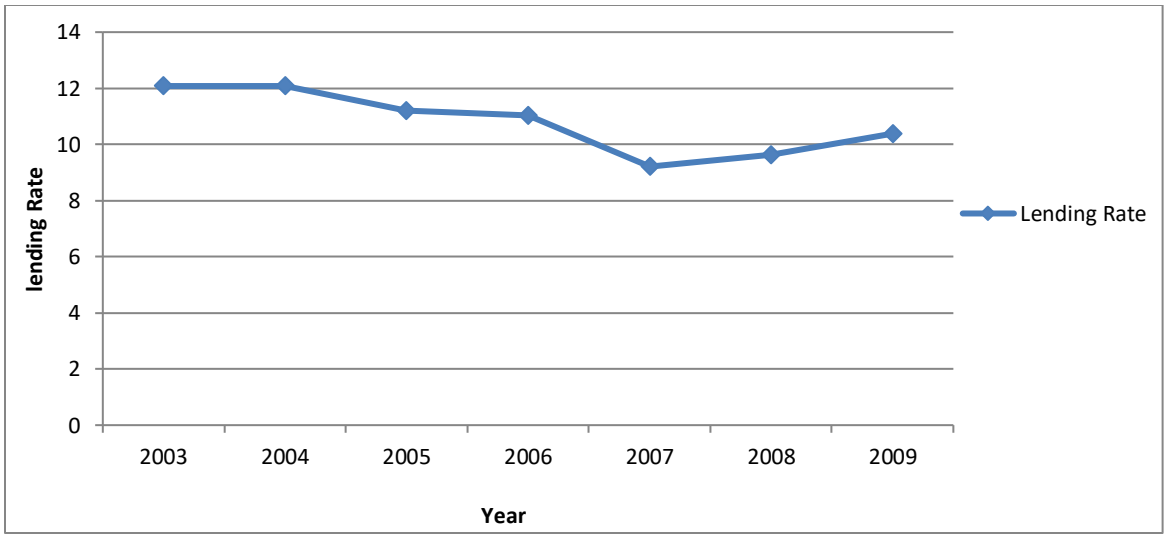


Figure 4.16

Average Lending Rate of HBL During Different Years


14
12
10
8
6
4
2
0
lending Rate
2003
2004
2005
2006
2007
2008
2009
Year
Lending Rate

Correlation Coefficient, Coefficient of Determination and t- statistics of HBL

The correlation coefficient of HBL between lending amount and lending rate is -0.6842. It is moderate degree negative correlation. It indicates that increments in are variable result the decrement in other variables or vice-versa. In this case, decrease in lending interest rate increases the lending amount but in low scale. People preferred more credit from HBL when bank reduced the lending interest rate. Similarly the coefficient of determination between two variables (r^2_{12}) =0.4681. It means that the relationship between dependent variable and independent variable is defined up to the extent of 46.81%. In other words the increase in lending amount by decrease in interest rate is defined up to the extent of 46.81 where as remaining percentage is due to other factors.

Similarly the t- statistics for HBL is -2.0977 (t-cal=2.0977) the tabulated value at 5 level of significance with 5 degree of freedom is 2.571. Comparing the t-tab and t-cal it is clear that t-cal < t-tab, so Null hypothesis is accepted and alternative hypothesis is rejected. It means that the relation shown by correlation coefficient is highly insignificant. That is the relation shown by two variables lending amount and lending rate is weak. The increase in demand of lending amount is not effect to the decrease in lending rate. Therefore, according to t-statistics the lending rate is also not strong as well as important factor that shape the lending amount. In conclusion, the inverse relation of HBL on two variables is in not agreement with theory.

4.3.4 Everest Bank Limited (EBL)

EBL also grant credit on different area like commercial loan industrial loan, Overdraft, working capital and so on. These rates on the different fiscal years are as follows.

Figure 4.15

Lending Rate of EBL on Different Sectors During Seven Years

Sector	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Overdraft	12.5	12.5	11.5	11.0	11.0	11.0	11.0
Export credit	10.0	10.0	8.5	8.0	8.0	10.0	10.0
Import LC	11.75	11.75	10.0	10.0	10.0	10.0	10.0
HMG Bond	8.0	8.0	6.5	6.0	6.0	8.0	8.0
BG/CG	10.5	10.5	8.5	8.5	8.5	8.5	8.5
Other Guarantee	-	-	-	-	-	-	-
Industrial Loan	13.0	13.0	12.0	11.0	11.0	11.0	11.0
Commercial Loan	12.5	12.5	11.5	11.0	11.0	11.0	11.0
Priority Sector Loan	13.0	13.0	12.0	-	-	-	-
Working Capital	12.5	12.5	10.5	11.0	11.0	11.0	11.0
Hire Purchase	13.0	13.0	12.0	7.0	10.5	10.5	10.5
Others	13.5	13.5	12.0	11.0	11.0	11.0	11.0
Average Int. Rate (1)	11.84	11.84	10.45	9.45	9.8	10.2	10.2
Lending Amount(2)	5030.9	6116.6	7914.4	10124.4	14059.2	18836.4	24469.6
Correlation (r_{12})	-0.5503						
Coe. of Det. ($r_{12}^{2)}$	0.3028						
t-statistics	t-cal=1.4737		t-tab = 2.571		Insignificant		
Standard deviation	0.7767						

Source: Banking and Financial Statistics 45-52, NRB and Annual Report of EBL

The table 4.15 shows the interest rate of EBL on lending on seven FYs granted in different sectors. With comparison to above, abovementioned bank EBL lending rate was somewhat lower then NABIL and HBL. This may be due to competition because thus banks are commercial banks. The average interest rate of EBL was declining trend. However, the decreasing magnitude is very little. The average interest rate of EBL was decreasing only in decimal percentage. The interest rates of EBL in all sectors are declining in same manner that means declining ration is almost same. It means that, there was equal fall in interest on each sector loan. In past seven FYs the highest interest rate was 13.5 and minimum interest rate was 6.0 to FYs 2006 and 2007. This is exceptional case. Nevertheless, in the other sector loan the lending interest rate not decreasing by huge magnitude. To see the position it is better to give glance on average lending rate

during last seven FYs. The average interest rate was 11.90, 11.90, 10.62, 9.63, 9.92, 10.20 and 20.20 in fiscal year 2003, 2004, 2005, 2006, 2007, 2008and 2009 respectively.

In effect of decline in interest rate, the lending amount of EBL is also found to be increasing drastically during the seven fiscal years. The lending amount also increasing radically past sample years. This is what the theory says. However, to know exact relationship it is necessary to compute the correlation coefficient. Prior to it, rational if the data of table 4.15 are present on the figure 4.17 and 4.18.

Figure 4.17

Lending Amount of EBL on During Different Years

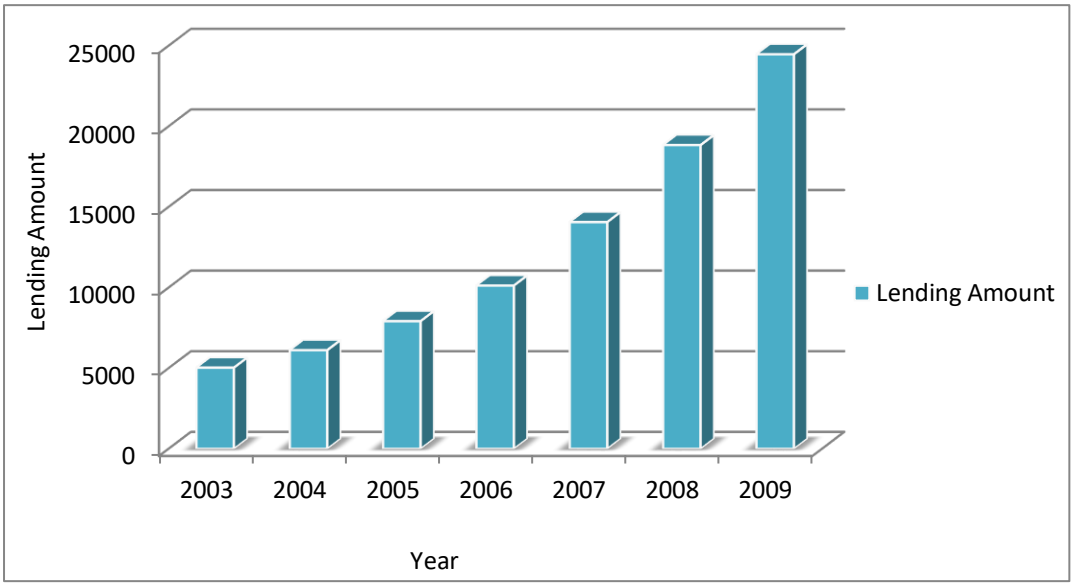
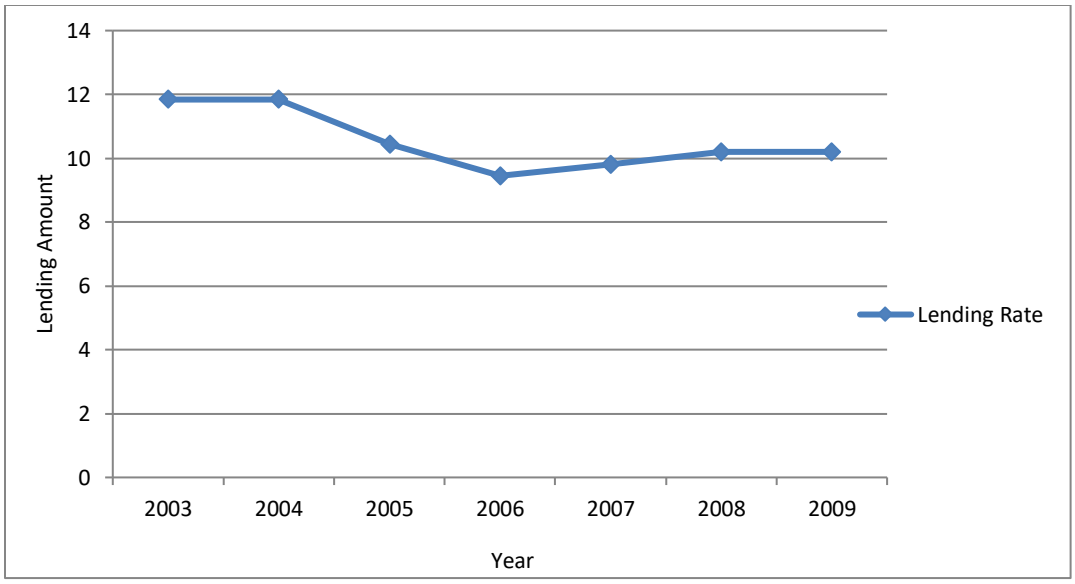


Figure 4.18

Average Lending Rate of EBL During Different Years



Correlation Coefficient, Coefficient of Determination and t- statistics of EBL

By using excel spreadsheet, correlation coefficient, average, standard deviation and other necessary statistics can be calculated. The correlation coefficient between lending rate and lending amount for EBL is -0.5503. This is very moderate degree of correlation the negative sign indicates that the two variables have opposite or inverse relationship, meaning decrease in one variables leads to increase in other variables but in little amount. For this case decreases in interest in interest rate stimulates the lending amount or vice-versa. The coefficient of determination for correlation coefficient is 0.3028. In other words the relationship between one variable is defined by another is up to the level of 30.28%.

To verify the correlation coefficient statistically, it is better if t-statistics is used. The calculated value for t is 1.4737 (t-cal=1.4737). Similarly the tabulated value for t at 5 degree of freedom with 5 level of significance is 2.571 i.e. (t- tab= 2.571). Comparing t-cal and t-tab it is found that t-cal< t-tab so in such case null hypothesis is accepted. It means that there is no correlation coefficient between two variables. In other words, their relation is insignificant. Though the correlation coefficient shows that these two variables have moderate level of correlation but t- statistics verify that inverse relationship between

lending rate and lending amount is not exactly applicable for EBL. Now it is clear that the increase in lending amount is not satisfactory due to decrease in lending interest rate.

4.3.5. Standard Chartered Bank Limited (SCBL)

At last, another bank for analysis is standard chartered bank limited. This bank also grants the credit to its customers in different sectors. Nevertheless, according the NRB bulletin "Banking and Financial statistics" the bank provides the loan to its customers on following sectors.

Table 4.16

Lending Rate of SCBL on Different Sectors During Seven Years

Sector	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Overdraft	-	-	6.5	6.5	6.5	6.5	6.5
Export credit	12.0	12.0	12.0	11.5	11.5	11.5	10.0
Import LC	11.0	11.0	11.0	9.0	9.0	9.0	9.0
HMG Bond	9.5	9.5	9.5	8.0	8.0	8.0	8.0
BG/CG	10.5	10.5	10.5	9.5	9.5	9.5	9.0
Other Guarantee	13.5	13.0	13.0	11.0	11.0	11.0	11.0
Industrial Loan	13.5	13.5	13.5	11.5	11.5	11.5	11.5
Commercial Loan	14.0	14.0	14.0	11.5	11.5	11.5	-
Priority Sector Loan	-	-	-	-	-	-	-
Working Capital	13.0	13.0	13.0	10.0	10.0	10.0	10.0
Hire Purchase	9.0	9.0	9.0	9.5	9.5	9.5	-
Others	14.5	14.5	14.5	13.0	13.0	13.0	15.0
Average Int. Rate (1)	12.05	12.0	11.5	10.09	10.09	10.09	10.0
Lending Amount (2)	6028.5	6662.0	8213.5	8905.1	10538.1	13718.6	13379.8
Correlation (r_{12})	-0.8498						
Coe. of Det.($r_{12}^{2)}$	0.7222						
t-statistics	t-cal=3.6053		t-tab = 2.571			Significant	
Standard deviation	0.8861						

Source: Banking and Financial Statistics 45-52, NRB and Annual Report of SCBL

The table 4.15 shows the lending interest rate of SCBL on different sectors in different sectors in different FYs. SCBL granted credit in most of the sector. But SCBL doesn't granted credit in priority sectors loan. In past two FY bank did not grant loan in overdraft but from FY 2005 it started to grant loan in it also. The overall lending rate of SCBL is in declining trend. In past seven FYs, the highest interest rate was in "others" categories. The table 4.15 shows the interest rate falls drastically on FY 2006 but in three past FYs the interest rate falls slowly in all sectors only on decimal. Similarly, the average interest rate is also in decreasing trend but the decreasing magnitude is not more except 2008 interest rate was slowly increase. To see the position, it is better to give glance on average lending rate during last seven FYs. The average interest rate was 12.04, 12.0, 11.58, 10.0, 10.0, 10.09 and 10.0 in FYs 2003, 2004, 2005, 2006, 2007, 2008 and 2009 respectively.

In effect of decline in interest rate, the lending amount of SCBL is also found to be increasing slowly during the seven fiscal years. During the period of seven years, the lending amount was doubled. Nevertheless, know the exact relationship it necessary to compute the correlation coefficient. The figure for changing trend of interest rate and lending amount is given on figure 4.19 and 4.20.

Figure 4.19

Lending Amount of SCBL on During Different Years

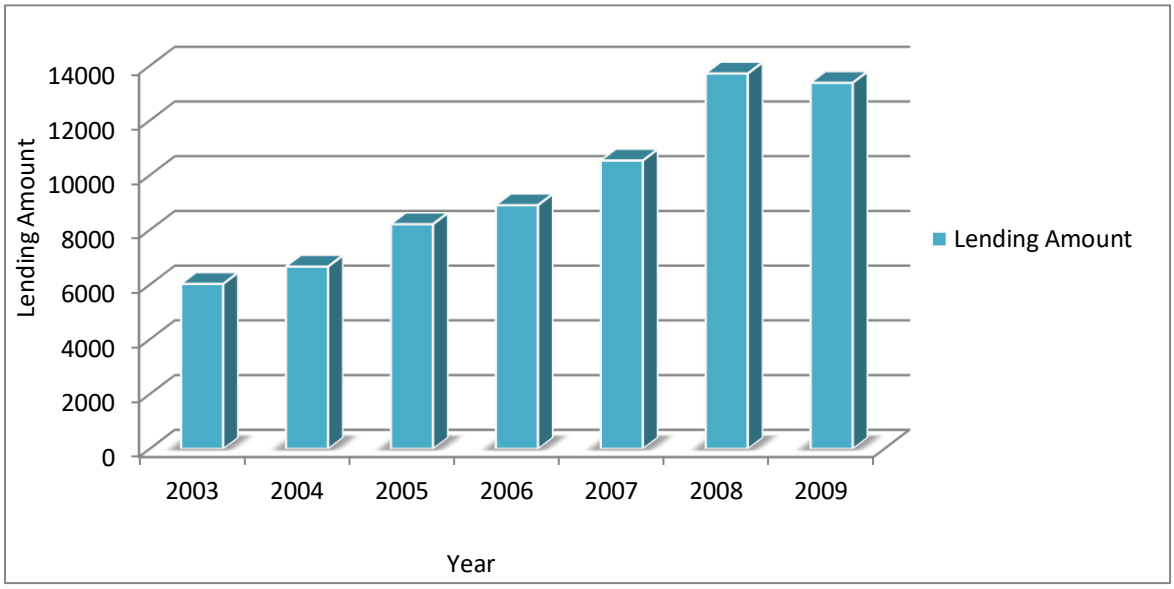
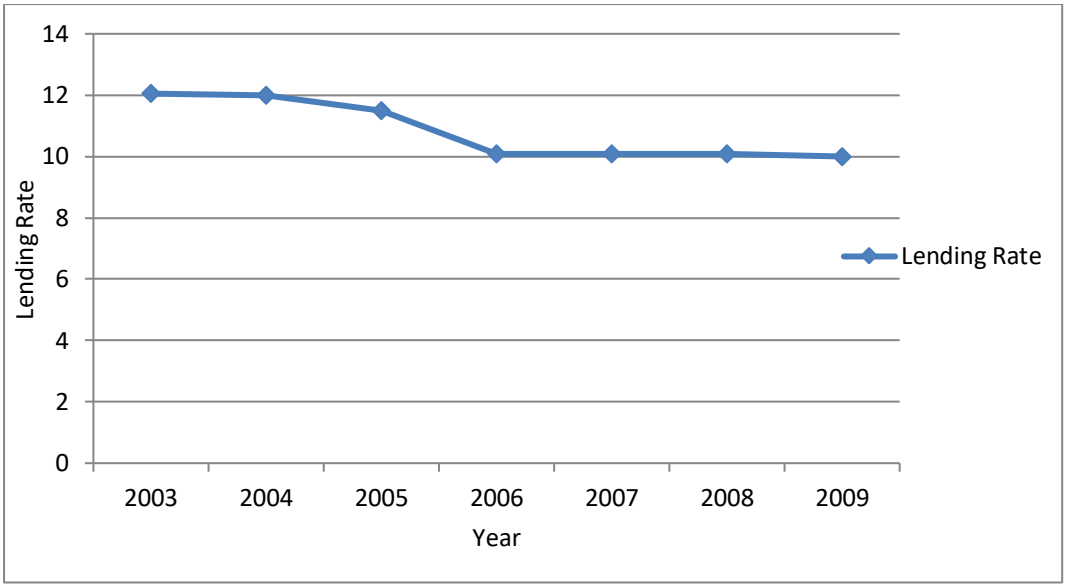


Figure 4.20

Average Lending Rate of SCBL During Different Years



Correlation Coefficient, Coefficient of Determination and t-statistics of SCBL

To find the exact relationship between the lending interest rate and lending amount, it is necessary to use some of the statistical tools like correlation coefficient student t-statistics is applied. For this case the correlation coefficient between SCBL'S for average interest rate and lending amount is -0.8465 (r_{12}= -0.8465) this is very high degree of correlation. The negative sign indicates that the two variables have opposite or inverse relationship meaning decrease in one variables leads to increase in other variables. For this case, decrease in interest rate stimulates the lending amount or vice-versa. The coefficient of determination for correlation coefficient is 0.7166. In other words the relationship between one variable is defined by another is up to the level of 71.66%.

To verify the correlation coefficient statistically, it is better if t-statistics is used. The calculated value for t is 3.5556 (t-cal=3.5556). Similarly the tabulated value for t at 5 degree of freedom with five level of significance is 2.571 i.e. t-tab = 2.571. Comparing t-cal and t-tab it is found that t-cal > t-tab. So in such case alternative hypothesis is accepted meaning the relation shown by the correlation coefficient is highly significant. In other words, two variables are significantly correlated or the increase in lending amount is due to the decrease in lending rate.

4.4 Analysis the Position of Interest Rate Spread and Loan and Advance Ratios

Interest rate spread is a difference between interest rate on lending and interest rate on deposit. Generally, banks charge more interest rate on lending than they provide interest rate on deposits. Similarly, loan and advance to total deposits helps us showing the relationship between loans and advances, which are granted, and the total deposit collected by the bank and also find out how successfully the banks are utilizing their total deposits on loan and advances for profit generating purpose.

4.4.1 NABIL Bank Limited (NABIL)

Position of interest rate spread and loan and advance a ratio of NABIL is given in table 4.17.

Table 4.17

Position of Interest Rate Spread and Loan and Advance Ratios of NABIL

Year	Interest rate on deposit (X_1)	Deposit amount in million Rs (X_2)	Interest rate on lending (X_3)	Loan Amount in Million Rs (X_4)	Interest rate spread (X_3-X_1)	Loan & advance ratios ($X_4 \div X_2$)
2003	3.35	13437.7	10.95	7996.9	7.60	59.51%
2004	2.82	14098.0	11	8635.1	8.18	61.25%
2005	3.32	14586.8	10.91	11078.0	7.59	75.94%
2006	3.21	19348.4	10.86	13021.3	7.65	67.29%
2007	2.75	23342.4	10.18	15657.1	7.43	67.08%
2008	4.79	31915.0	10.11	21365.0	5.32	66.69%
2009	5.58	37348.3	11.5	27590.0	5.92	73.87%

Source: Annual Report of NABIL

The beyond table shows a clear picture of interest rate on deposits and lending, deposit amount and loan amount for seven FYs of NABIL as well as interest rate spread and total loan & advance ratios. The average spread rate during the period is 7.60%, 8.18%, 7.59%, 7.65%, 7.43%, 5.32% and 5.92% in FYs 2003, 2004, 2005, 2006, 2007, 2008 and 2009 respectively. The interest rate spread shows how greater rate charge by NABIL for lending than deposit rate.

From the calculation of loan and advance to total deposit ratios shows that NABIL was able to utilized 59.51% of total deposited fund on loan and advances for profit gestating purposes in 2003. After that, it increases from 2004 and 2005. The ratio was 61.25% in 2004, and 75.94% in 2005 than after it was again decreased to 67.29 in 2006, 67.08 in 2007, 66.69% in 2008, and 73.87% in 2009.

Generally, greater loan & advance to total deposit ratio implies the better utilization of total deposits and vice-versa. The table 4.17 can be clarified by the figure 4.21 and figure 4.22.

Figure 4.21

Relationship between Deposit Rate and Lending Rate of NABIL

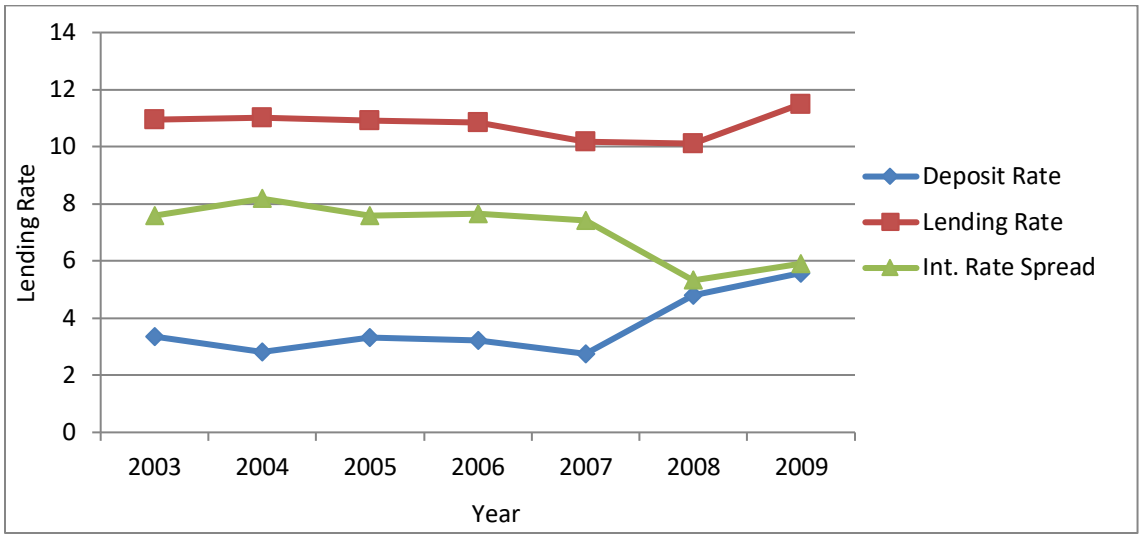
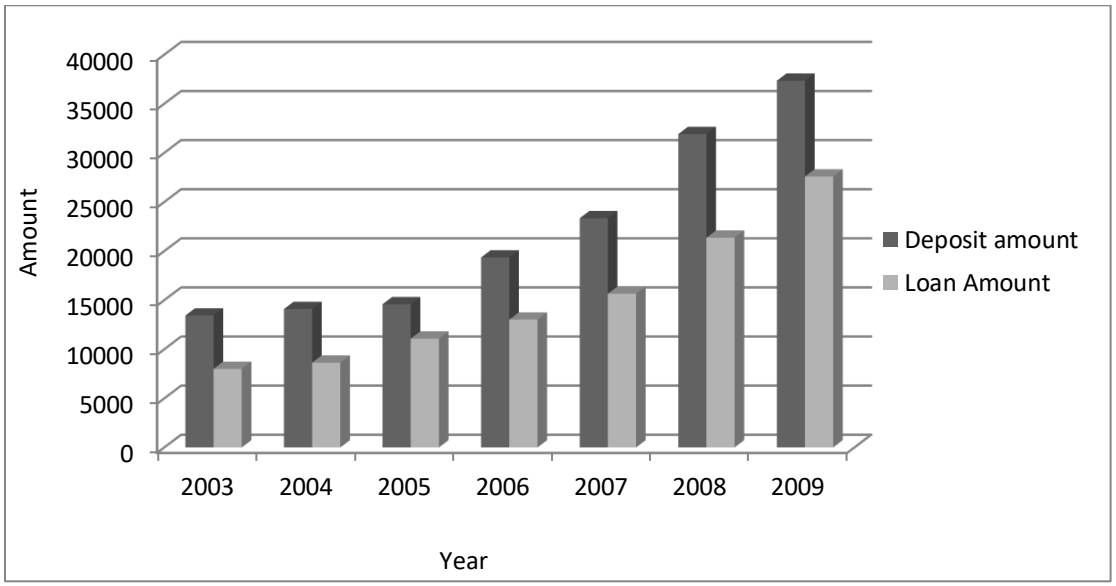


Figure 4.22

Deposit Amount and Loan Amount of NABIL During Different Years



4.4.2 Bank of Kathmandu

The interest rate on deposit and lending, Deposit amount and loan amount for seven years period of BOK as well as interest rate spread and loan and advance ratio is given as follows:

Table 4.18

Position of Interest Rate Spread and Loan and Advance Ratios of BOK

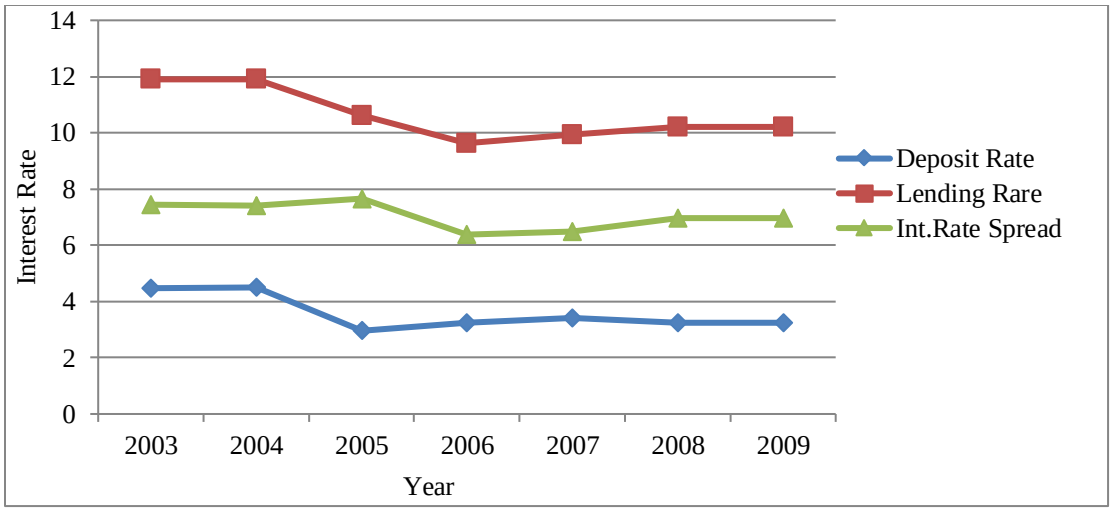
Year	Interest rate on deposit (X_1)	Deposit amount in million Rs (X_2)	Interest rate on lending (X_3)	Loan Amount in Million Rs (X_4)	Interest rate spread (X_3-X_1)	Loan & advance ratios ($X_4 \div X_2$)
2003	4.03	6171.0	12.16	4856.0	8.13	78.69%
2004	3.37	7742.0	11.72	6008.0	8.35	77.60%
2005	3.09	8943.0	11.75	6182.0	8.66	69.12%
2006	3.09	10485.0	11.63	7489.0	8.54	71.42%
2007	2.81	12389.0	11.63	9694.0	8.82	78.24%
2008	3.47	15834.0	11.63	12748.0	8.16	80.51%
2009	3.47	18084.0	11.63	14946	8.16	82.64%

Source: Annual Report of BOK

The above table shows clear figure of interest rate on deposit and lending deposit amount and loan amount for seven years period of BOK as well as interest rate spread and total loan and advances ratios. From the table both deposit rate and lending rate move in same and constant direction. When deposit rate decreases, lending rate also decreases except 2008 and 2009. The interest rate spread (different between lending rate and deposit rate) shows how greater rate charge by BOK for lending than deposit rate. The table 4.17 shows spread rate is high in year 2005 (i.e. 8.66) that it has decreased to 8.13% in 2003, 8.35% in 2004, 8.54% in 2006, 8.82% in 2007, 8.16% in 2008 and 2009. The relation between interest rate and lending rate of BOK is given in figure 4.23

Figure 4.23

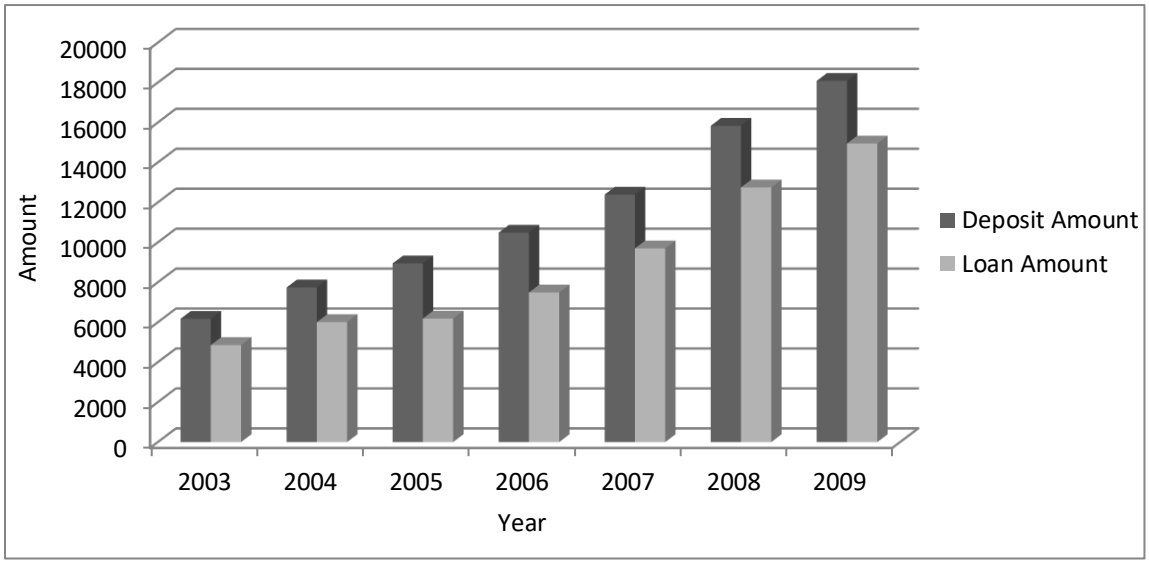
Relationship between Deposit Rate and Lending Rate of BOK



The table also shows the loan and advances to total deposit ratios of BOK for seven years period. The high loan and advance ratio indicate better utilization of deposit fund for profit generating purpose. Loan and advance to total deposit ratio of BOK is 78.69%, 77.60%, 69.12%, 71.42%, 78.24%, 80.51% and 82.64% in the FYs 2003, 2004, 2005, 2006, 2007, 2008 & 2009 respectively. The deposit amount and loan amount of BOK can be shown in figure 4.24.

Figure 4.24

Deposit Amount and Loan Amount of BOK During Different Years



4.4.3 Himalayan Bank Limited (HBL)

The situation of interest rate spread and loan and advance ratio is talk about in subsequent table 4.18

Table 4.19

Position of Interest Rate Spread and Loan and Advance Ratio of HBL

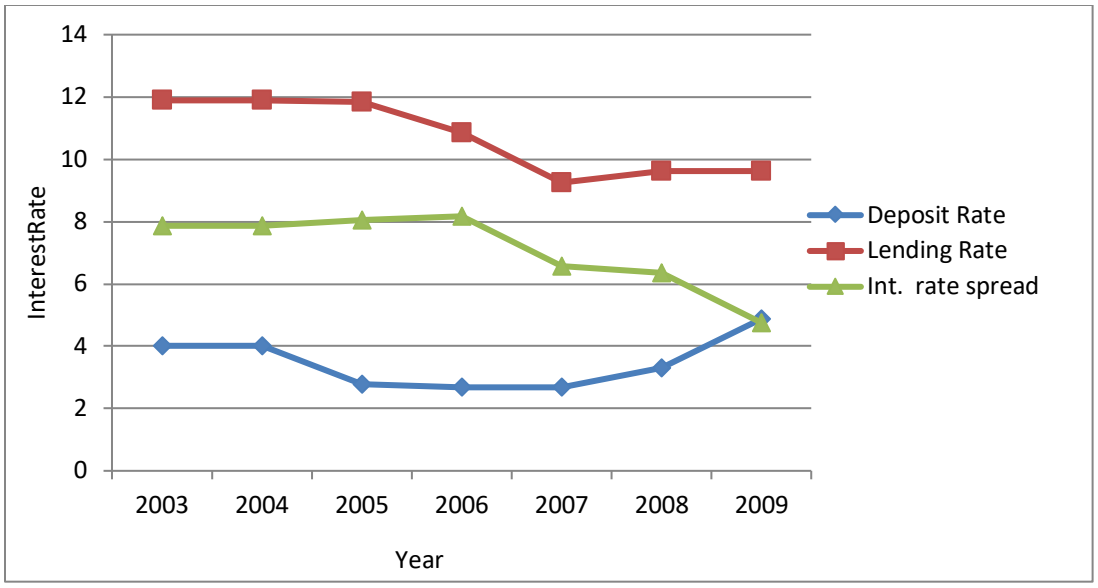
Year	Interest rate on deposit(X_1)	Deposit amount in million Rs (X_2)	Interest rate on lending (X_3)	Loan Amount in Million Rs (X_4)	Interest rate spread (X_3-X_1)	Loan & advance ratios ($X_4 \div X_2$)
2003	4.01	21002.8	11.89	11074.2	7.88	52.72%
2004	4.01	22760.9	11.89	13081.7	7.88	57.47%
2005	2.79	24831.1	11.85	13245.0	8.06	53.34%
2006	2.68	26456.2	10.85	15515.7	8.17	58.64%
2007	2.68	29905.8	9.25	17672	6.57	59.09%
2008	3.29	31842.8	9.63	20179.6	6.34	63.37%
2009	4.875	34681.3	9.63	25519.5	4.755	73.58%

Source: Annual Report of HBL

The above table shows a clear picture of interest rate on deposits and lending, deposit amount and loan amount for seven FYs of HBL as well as interest rate spread and total loan & advance ratios. However, the average spread rate during the period is 7.88% 7.88%, 8.06%, 8.17%, 6.57%, 6.34%and 4.755% in FYs 2003, 2004, 2005, 2006, 2007, 2008 & 2009 respectively. The interest rate spread shows how superior rate charge by HBL for lending than deposit rate. The average spread rate is not stable over seven years period but in past FYs the rate is about to same that only differs in decimal. After FY 2004 the interest rate spread is little bit increased. The relation between deposit rate and lending rate of HBL is presented in figure 4-27

Figure 4.25

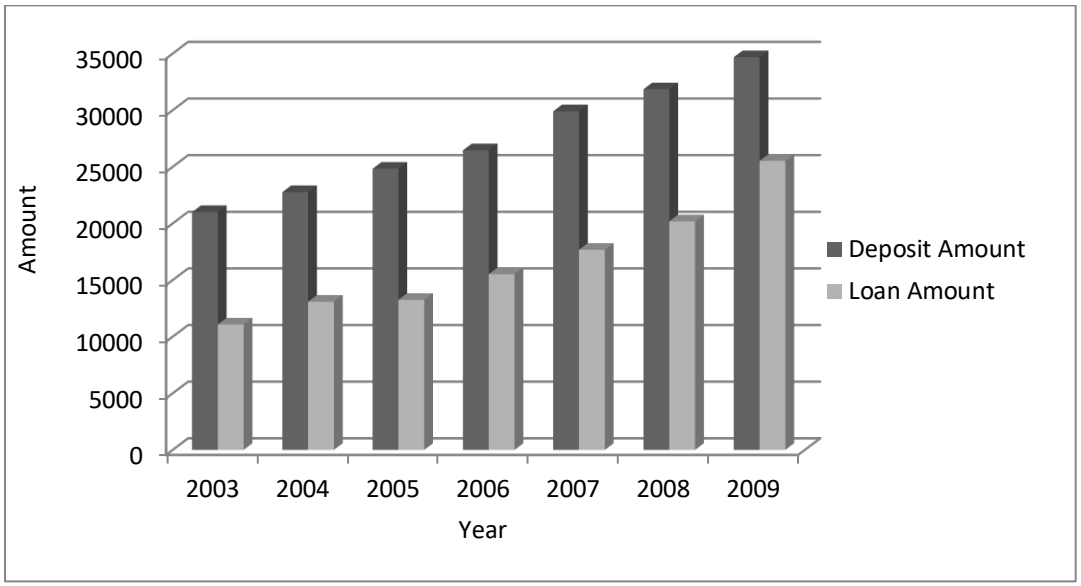
Relationship between Deposit Rate and Lending Rate of HBL



From the estimate of loan and advance to total deposits ratios shows that HBL was able to utilized 52.72% of total deposited fund on loan and advances for profit generating purposes in 2003.then it was increased trend but it was decrease in 2005 then it was increased to 58.64% to 2006. The greater loan and advance to total deposit rations implies the better utilization of total deposits and vice- versa. Nevertheless, from the table HBL has not able to better-utilized total deposit fund in past year.

Figure 4.26

Deposit Amount and Loan Amount of HBL During Different Years



4.4.4 Everest Bank Limited (EBL)

Thesaurus the deposit rate and loan amount lending rate and amount as well as interest rate spread and loan and advance of EBL is given as follows:

Table 4.20

Position of Interest Rate Spread and Loan and Advance Ratios of BOK

Year	Interest rate on deposit (X_1)	Deposit amount (in Million) Rs (X_2)	Interest rate on lending (X_3)	Loan Amount (in Million) Rs (X_4)	Interest rate spread (X_3-X_1)	Loan & Advance ratios ($X_4 \div X_2$)
2003	4.46	6694.9	11.90	5049.6	7.44	75.15%
2004	4.50	8064.0	11.90	6131.1	7.4	76.62%
2005	2.96	10097.8	10.62	7914.0	7.66	78.38%
2006	3.25	13802.5	9.63	10124.0	6.38	73.35%
2007	3.42	19097.7	9.92	14059.2	6.5	73.62%
2008	3.25	23976.3	10.2	18836.4	6.95	78.56%
2009	3.25	33322.9	10.2	24469.6	6.95	73.34%

Source: Annual Report of EBL

The table 4.19 shows a clear picture of interest rate on deposits and lending deposit amount and loan amount for seven years period of EBL as well as interest rate spread and

total loan and advance ratios. From the above table both the variable (i.e. deposit and lending rate) move in same direction except last two years' interest rate on deposit was decrease due to computation of financial institutions. When deposit rate decreases larding rate also decreases. However, the average spread rate during the period is 7.44%, 7.40%, 7.66%, 6.38%, 6.5%, 6.95% and 6.95% in FY 2003, 2004, 2005, 2006, 2007, 2008 and 2009 respectively. The interest rate spread shows how greater charge by EBL for lending than deposit rate. From the analysis spread rate of EBL is not constant over seven years period. Rage of interest rate spread of EBL during the study period is 6.38% to 7.66%.

Loan advance to total deposit ratio shows utilization of total deposit fund for loan and advances. Generally, loan and advance to total deposit ratio implies the better utilization of total deposited on loan and advance for profit generating purpose and vice-versa. The table shows that EBL has utilized 75.15%, 76.02%, 78.38%, 73.34%, 73.62%, 78.56% and 73.34% total deposited fund for loan and advances in the respective year 2003, 2004, 2005, 2006, 2007, 2008 & 2009. The highest ratio of EBL is 78.56 in FY 2008 and lowest ratio is73.34 in FY 2006 and 2009.

The relationship between deposit rate and lending rate of EBL is given in figure use 4.27.

Figure 4.27

Relationship between Deposit Rate and Lending Rate of EBL

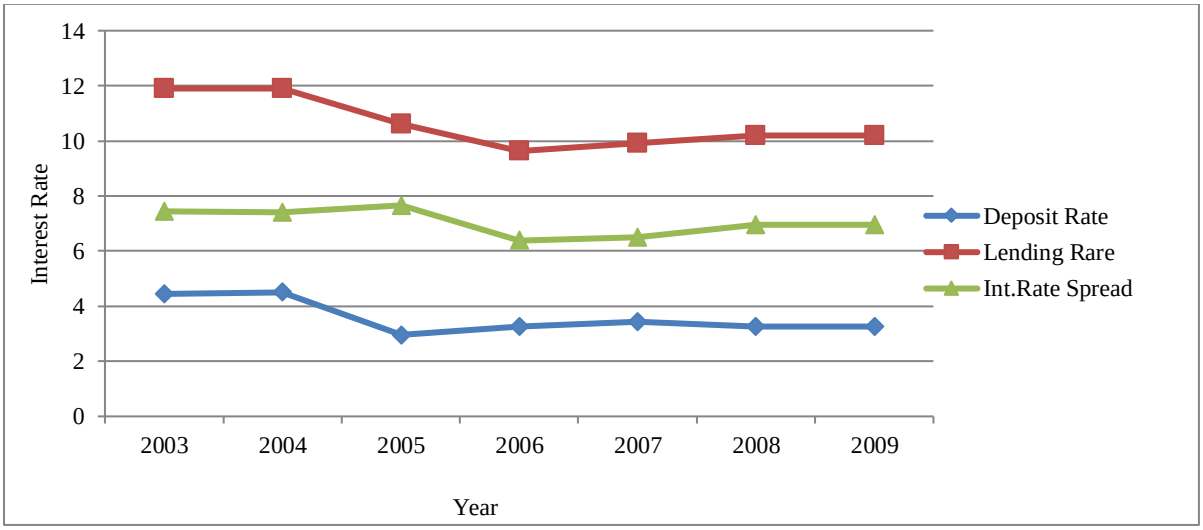
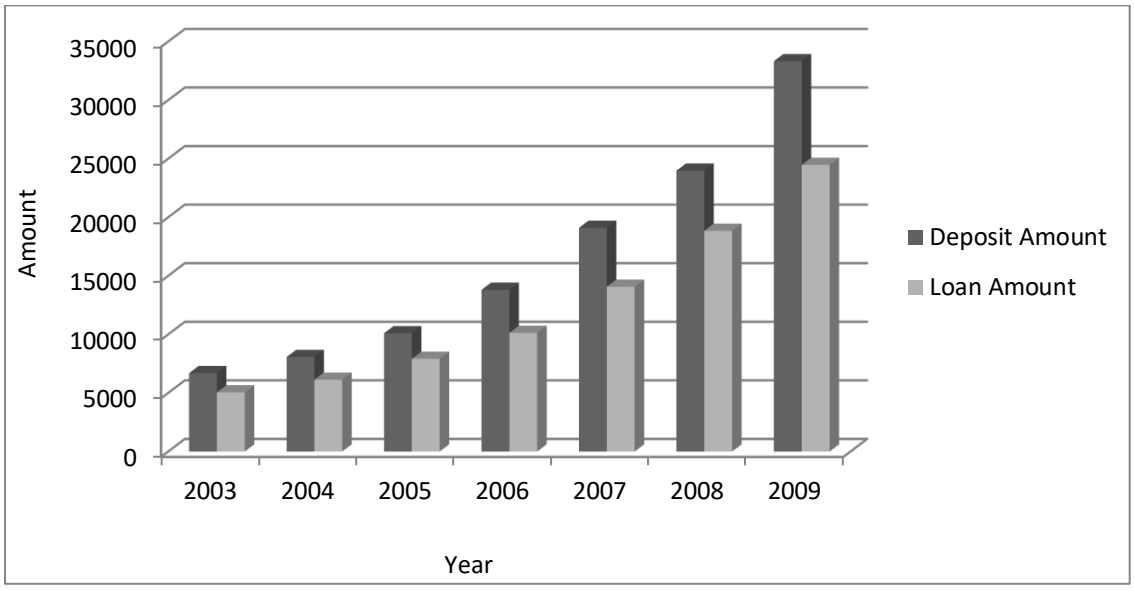


Figure 4.28

Deposit Amount and Loan Amount of EBL During Different Year



4.4.5 Standard Chartered Bank Limited (SCBL)

The interest rate on deposits and lending amount for seven Fiscal Year of SCBL as well as interest rate spread and total loan and advance ratios is given in the table 4.19

Table 4.21

Position of Interest Rate Spread and Loan and Advance Ratios of BOK

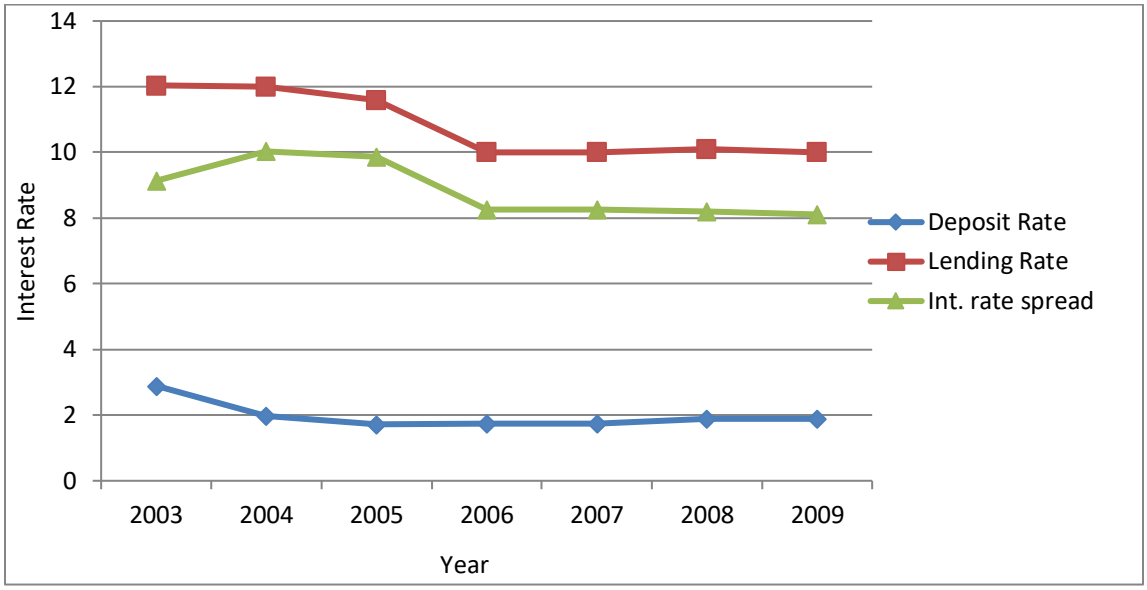
Year	Interest rate on deposit (X_1)	Deposit amount (Rs in Million) (X_2)	Interest rate on lending (X_3)	Loan Amount (Rs in Million) (X_4)	Interest rate spread (X_3-X_1)	Loan & advance ratios ($X_4 \div X_2$)
2003	2.89	18755.5	12.04	6928.5	9.15	36.94%
2004	1.97	21161.4	12.00	6662.0	10.03	31.48%
2005	1.72	19344.0	11.58	8213.5	9.86	42.46%
2006	1.75	23050.5	10.00	8905.1	8.25	38.63%
2007	1.75	24647.0	10.00	10538.1	8.25	42.76%
2008	1.89	29743.9	10.09	13718.6	8.2	46.61%
2009	1.89	35871.7	10.0	13679.8	8.11	38.14%

Source: Annual Report of SCBL

The above table shows a clear picture of interest rate on deposit and lending, deposit amount and loan amount for seven FYs of SCBL as well as interest rate spread and total loan & advance ratios. From the above table both the variables (i.e. deposit rate and lending rate) move in the same direction. When deposit rate decreases, lending rate also decreases. The average spread rate during the period is 9.15%, 10.03%, 9.86%, 8.25%, 8.25%, 8.20% and 8.11% in year 2003, 2004, 2005, 2006, 2007, 2008 and 2009 respectively. This interest rate spread of SCBL is more rather than other Commercial banks. The interest rate spread shows how greater rate charge by SCBL for lending than deposit rate. From the analysis spread rate of SCBL is not constant over seven year periods. The range of interest rate spread during the study period is 8.11% to 10.03% the relation between interest rate and lending rate of SCBL is given in figure 4.29.

Figure 4.29

Relation between Deposit Rate and Lending Rate of SCBL

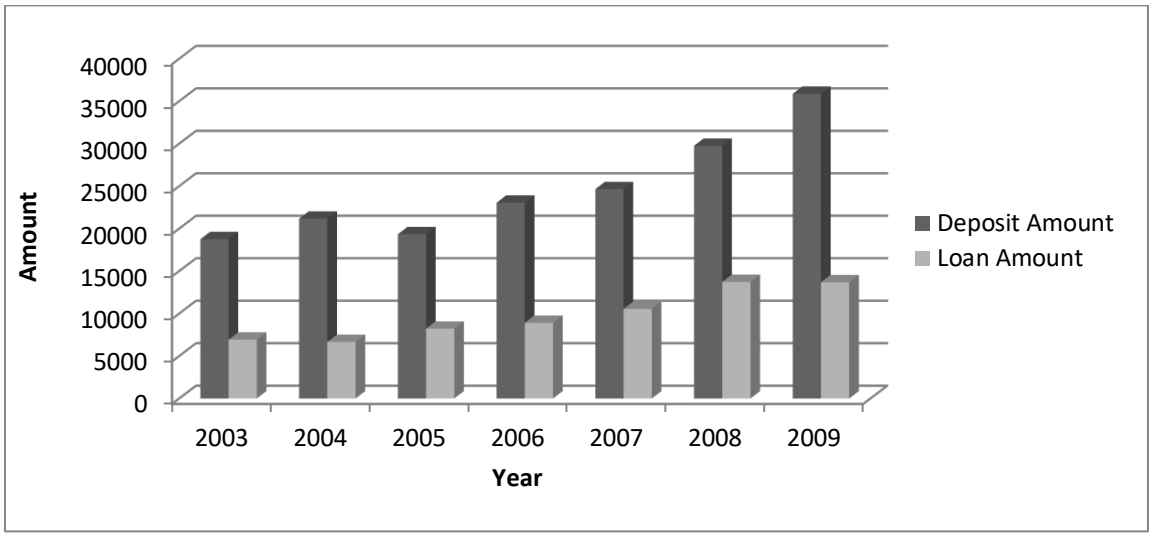


The table shows both deposit amount and loan amount of SCBL are in increasing trend except in year 2005 in deposit amount but loan and advances to total deposit ratios of SCBL is in decreasing trend up to FY 2004. After that, it is little bit increased but again decreased to 38.63% in FY 2006 then also little bit increase and again decreased to 38.14% in 2009. This means SCBL is not able to utilize the total deposited fund on loan for generating profit. SCBL was able to utilize only 46.61% of total deposited fund on

loan & advances for profit generating purposes in 2008. This is the highest ratio with in these seven years period. The lowest ratio is 31.48% in year 2004. This decreasing trend shows that SCBL has not able to utilize deposit form effectively. The deposit amount and loan amount of SCBL us shown in figure 4.30.

Figure 4.30

Deposit Amount and Loan Amount of SCBL During Different Years



4.5 Findings of this Study

From the study, the following three major findings are obtained.

Findings with respect to Sample Forms

According to the substitution, theory there should be strong relationship between the deposit amounts and deposit interest rate. The analysis of substitution effect for the fixed and savings shows that substitution effect does not work for all sample banks.

- For, **NABIL**

The correlation between saving interest rate and deposit amount is r = -0.7799 and correlation between fixed interest rate and deposit amount is r = 0.8360. Saving interest rate and deposit amount show a negative correlation, which opposes the substitution theory. However, fixed interest rate and deposit amount shows the positive correlation, which supports the substitution theory. Supporting the correlation, the test for significance proved significant and insignificant for these cases.

- For, **BOK**

The correlation for savings showed that r = -0.9063 and for Fixed r = 0.0378 which indicates one does not support and other supports the substitution theory. In line with the first correlation, the test for correlation further proved that it is significant whereas for second correlation it proved that the test is insignificant.

- For**, HBL**

The correlation for Savings showed that r = -0.7798 and for Fixed r = -0.4713 which indicates does not support the substitution theory. Despite that, test for correlation of fixed deposit proved that the test is insignificant and saving deposit correlation offence the test is significance.

- For, **EBL**

The correlation for Savings showed that r = -0.7692 and for Fixed r = -0.5530 which indicates does not support the substitution theory. In line with the first correlation, the test for correlation further proved that it is significant whereas for second correlation it proved that the test is insignificant.

- For, **SCBL**

The correlation for Savings showed that r = -0.4084 and for Fixed r = -0.1620 which indicates that both does not support the substitution theory. Supporting the correlation, the test for significance also proved insignificant for both the cases.

Concluding from above, the analysis of substitution effect for both fixed and saving deposit shows that substitution effect not supported at HBL, EBL, SCBL and saving deposit of NABIL and BOK. The fixed deposit of NABIL and BOK are support the substitution theory. This means that, people are concussing to deposit and interest rates on deposit. Which are falling some year then increase the interest rate. The increasing deposit amount clarifies this fact.

According the theory, lending interest rate and lending amount should have inverse relationship but like in deposit, this also does not hold true in all sample banks.

- For, **NABIL**

The correlation between the two variables lending interest rate and lending amount r = -0.0591 but the test of correlation does not prove it and reveals the result of insignificant which denies the existence of inverse relationship between the two.

- For, **BOK**

The correlation between the two variables lending interest rate and lending amount r = 0.1675 and the test of correlation proves it and shows the result of insignificant which denies the existence of inverse relationship between the two.

- For, **HBL**

The correlation between the two variables lending interest rate and lending amount r = -0.6842 and the test of correlation proves it and shows the result of insignificant which denies the existence of inverse relationship between the two.

- For, **EBL**

The correlation between the two variables lending interest rate and lending amount r = -0.5503 but the test of correlation does not prove it and reveals the result of insignificant which denies the existence of inverse relationship between the two.

- For, **SCBL**

The correlation between the two variables lending interest rate and lending amount r = 0.8498 and the test of correlation proves it and shows the result of significant which accepts the existence of inverse relationship between the two.

Concluding from above, the inverse relationship holds two for one bank SCBL. Others show a direct relationship in existence between the two variables.

According to interest rates Spread and Loan and advance ratios, generally interest rate spread shows how greater rate charged by bank for lending then deposit rate and greater loan and advance to total deposit ratio implies the better utilization of total deposit.

- For**, NABIL**

The interest rate spread of the bank is decreasing trend. It is good for consumer collection. Deposit and lending amount is found in increasing trend and bank however utilizing the collected deposit in terms of loan and advances (i.e. lending) but not properly.

- For, **BOK**

Deposit and lending amount is found in increasing trend and bank however utilizing the collected deposit in terms of loan and advances (i.e. lending) properly.

- For, **HBL**

Deposit amount and lending amount is in increasing trend but loan and advance ratio is not so good that means deposit amount is not properly utilizing by bank.

- For, **EBL**

Deposit amount, loan and advances are satisfactory that means however, the bank is utilizing the deposit amounts in terms of loan and advances.

- For, **SCBL**

Deposit amount and lending amount are in increasing trend but it is not able to utilize the deposit amount in terms of loan and advances properly and its loan and advances ratio is very low in comparison of other five sample banks.

Concluding from above, the interest rate spread is higher of sample bank except NABIL. The loan and advance to total deposit ratio show the better utilization of total deposit. In this case, the sample banks utilization is satisfactory except NABIL and SCBL.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter mainly consists of Summary, Conclusion, Recommendation and Scope for the further study.

5.1 Summary

The economic development of a country depends up on the development of commerce and industry. In addition, there is no doubt; banking promotes the development of commerce because banking itself is the part of commerce. The process of economic development depends upon various factors, however economists are now convinced that capital formation and its proper utilization plays a paramount role in rapid economic development. In 1991 /1992, Nepal adopted an economic liberalization policy. Then gradually introduced several policies and laws such as Industrial Policy 1992, Foreign Direct Investment and Technology Transfer Act 1992, Privatization Act 1992 were introduced in line with liberal economic policy. After the adoption of economic liberalization policy, particularly the liberalization financial sector paved the way for establishment of new banks and non-bank financial institutions into the country. Consequently, by the end of mid – July 2009, NRB licensed bank and non-bank financial institutions totaled 242 out of them, 26 are commercial banks, 63 development banks, 77 finance companies, 15 micro- credit development banks, 16 savings & credit cooperatives and 45 NGOs.

Accepting deposit from savers (household, businesses or government) and transferring the collected deposit to the investment sector (i.e. lending collected amount from depositors to borrowers) is one of the major functions of banking business. Banks are the real intermediaries who transfer saving (i.e. collected deposit) to the needy investors. So that money can be used in the productive sector for economic development. To collect deposit bank provide certain percentage of interest and when amount is loaned outside (which has been collected from savers) certain percentage of interest is charged to them.

Even though there are various factors in the economy that effects deposit amount and lending amount interest rate is one of the major economic indicator that affect deposit and lending amount of the banks. This study was done to clear about interest rate structure of commercial banks and it's influence deposit and lending amount. This study was under taken to show between deposit rate and deposit amount and lending rate and lending amount as major objectives.

The review of literature shows that there are many economic and noneconomic factors that influence deposit and lending. However, it also seen that there is relationship of interest rate with deposit amount and lending amount. The volume of deposit amount and lending amount of banks are highly affected by their interest rate. According to the theoretical views, there is positive relationship between interest rate on deposit and deposit amount. That is, when interest rate on deposit increases that attract to the deposit and deposit amount of banks are increases or vice versa. Similarly, there is negative relationship in between interest rate on lending and lending amount of banks. That means with increase in interest rate on lending, lending (loan or investment) amount decreases and vice versa. Various commercial banks and financial companies in Nepal are free to set their own interest rate on deposit and lending. Hence, all banks determine their interest rate as per their own policy purpose or objectives. However, interest rate fluctuates with time and with impact of economic and non-economic factors which in turn affect deposit amount and lending amount of banks.

The effect of interest on deposit and lending amount and interest rate structure on deposit and lending were analyzed from five commercial banks of Nepal for seven years period by using statistical and financial tools mentioned in chapter three. Secondary data were collected from NRB'S economic reports, annual reports of related banks and websites. The analysis of all banks showed average interest rate on deposit; is in decreasing except last two years and deposit amount is in increasing trend. Similarly, interest rate on lending had also same trend. But interest rate on loan and advances (lending) amount was in increasing trend. This trend showed there was opposite relationship between deposit rate and deposit amount; lending rate and lending amount of commercial banks. The

statistical analysis also shows that there is insignificant relationship between deposit rate and deposit amount and lending rate and lending amount of most commercial banks except few. The interest rate spread of all the sample banks found to satisfactory except SCBL during last seven fiscal years. But it was found that most of the banks were not able to use deposit in terms of loan and advances properly except BOK.

5.2 Conclusion

From the presentation and analysis of data; using different financial tools the major findings are tabulated and are presented as follows:

Table 5.1

Summaries of the Findings

Bank		Correlation coefficient		t- statistics		Result
		Saving Int. Rate	Fixed Int. Rate	Saving Int. Rate	Fixed Int. Rate	
NABIL	Deposit	-0.7799	0.8360	2.7861	3.4062	Significant
	Lending	-0.0591		0.1324		Insignificant
BOK	Deposit	-0.9063	0.0378	4.795	0.0846	Sig. / Insig.
	Lending	0.1675		0.3799		Insignificant
HBL	Deposit	-0.7798	-0.4713	2.785	1.194	Sig. / Insig.
	Lending	0.6842		0.9051		Insignificant
EBL	Deposit	-0.7692	-0.5530	2.692	1.484	Sig. / Insig.
	Lending	-0.5503		1.4737		Insignificant
SCBL	Deposit	-0.4048	-0.1620	0.99	0.367	Insig./ Insig.
	Lending	-0.8498		3.6053		Significant

From the analysis of relevant data of sample banks under the study, using various statistical tools mentioned in chapter three and from their findings following conclusions have drawn.

- The interest rate on both deposit and lending of all sample banks are found to be in decreasing trend except in 2008 and 2009. On the contrary, this deposit amount and lending amount is increasing every year.
- The saving deposit amount and saving interest rate have negative relationship (i.e. correlation ranging from -0.4084 to -0.9063). It means that they have inverse

relationship i.e. one variable increases other variable decreases and vice-versa. This case is against the theory of substitution effect. This may be due to the fact that in last FYs people accumulated most of their funds on saving accounts although they do not receive appropriate interest on it. It may be because of unavailability of other acceptable investment opportunity, in which a separate study can be made. Similarly, the convenience of using saving accounts provokes the investor to deposit on saving account. Similarly, the excess supply of saving deposit reduces interest rate on saving account.

- To clarify the above conclusion the t-statistic of negative correlation between saving deposit amount and saving interest rate is significant except SCBL it means that they have strong negative relationship.
- Analysis of fixed deposit amount and fixed interest rate shows negative relationship except NABIL and BOK. The correlation coefficient for NABIL and BOK is 0.8360 and 0.0378 respectively. According to correlation coefficient, the substitution effects occur for two NABIL and BOK in case of fixed deposit that means fixed rate when interest rate on fixed deposit decreases/ increases. But other three banks HBL, EBL and SCBL the correlation coefficient is negative, it mean people deposit more money even if the bank offer lower yield rate on fixed deposit.
- The t-statistic between fixed deposit interest rate and fixed deposit amount is insignificant except NABIL. It means that four banks have positive relationship for fixed deposit and one bank have negative relationship.
- One of variables that affect the demand of fund (lending activity) is lending interest rate. Theoretically, there is negative relationship between lending interest rate and lending amount. In this study for five sample banks, it is found that four sample banks have negative correlation between these two variables and BOK have positive correlation. By using correlation tools, it can be inferred that all the sample banks have inverse relationship as suggested by theory.
- The t- test for correlation coefficient of each sample bank for negative relationship between lending interest rate and lending amount shows that the t-value for NABIL, BOK, HBL and EBL is insignificant which means that though the correlation coefficient shows moderate relationship but their relationship is not strong i.e. not

significant relationship. Therefore, increase in lending amount is not due to the decrease in lending interest rate but due to other reasons. Nevertheless, for other banks except SCBL the t-value is significant meaning that the one of the factor to increase the lending amount is decline in interest rates. Therefore, it can be concluded that lending interest rate is also one important factor for expansion or contraction of lending amount.

- It is also found that lending interest rate of the 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. In case of lending people, use more money when interest rate on lending is low. Almost all banks have lent more money by lowering interest rate on lending. Nevertheless, borrowing has increased on non-productive sectors.
- Based on analysis of sample banks it can be concluded that interest rate on deposit does not attractive for the depositors; as every year deposit rate of sample banks are seen deceasing to 2007 but the sample bank has increase the interest rate due to computation of commercial banks and crisis of money. So it may also be concluded that commercial banks are not conceived in collecting deposit as interest rate on deposit is too less.
- From the analysis of lending rate of sample banks it can be concluded that interest rate on lending attract borrowers investors as lending rate of sample banks have decreased every year to provide better opportunities for the borrowers investors. The commercial banks have increased the interest rate until 2008 and 2009. It shows that the bank has promoted the depositor as will as borrower.
- During the study period, it is found that, there exist the high spread between deposit interest rate and lending interest.

5.3 Recommendations

Based on the above findings and conclusions, certain recommendation can be made here so that the concerned authorities, future researchers, academicians, bankers can get further insights on the present conditions on above topic. It is considered that this

research will be fruitful for them to improve the present condition as well as for further research. The major recommendations of this study are as under.

- In order to generate more capital for the development of the economy, more deposits are needed to be collected by the financial institutions. For this, the financial institutions are suggested to quote higher deposit interest rate as far as possible. Though this situation reduces their profit opportunities, but it will enhance the economic condition of the country in the long run.
- The banks should stop ignoring fixed deposits if their focus is to increase deposits and in future should quote higher fixed deposits interest rates.
- The high spread between deposit interest rate and lending interest rate is another factor to be considered. Higher spread merely increases the profit figures of the banks but at the same time, it reduces the deposit collection and investment in the country. So the financial institutions are suggested to reduce the interest spread as minimum as possible.
- As the central bank of the country, NRB has power to specify the range or spread between lending rate and deposit rate. So NRB is suggested to specify the spread whenever there is higher gap between two interest rates in the country.
- Though the interest rate in free market is determined by the interplay of demand and supply, the concerned parties who fixed the interest rates are suggested to include the inflation premium as far as possible while fixing the interest rates. If the rate of inflation is not considered & real rate comes out to be negative then depositors may withdraw their money and utilize it on non-productive sectors.
- While reducing the lending rate, it is suggested to reduce more on productive sectors than non-productive sectors. If not possible then banks and finance companies can reduce the rate of all sectors proportionately.
- The lending rates of same banks on same sector are found to be different i.e. quoted on range. These types of inconsistency may bring misconception about that organization. So thus are suggested to quote one consistent rate than on range.
- Lending institutions is suggested to invest on new areas as well as to introduce competitive customer oriented schemes on lending and borrowing so that more

lending and borrowing can be promoted and overall liquidity problem may be solved.

- From the experience of collecting the secondary data, it is suggested that NRB should pay special attention to publish detail information on timely manner. The untimely publication of such information may cause negative impact on the efficiency of those whose workings are based on this information.
- Sample institutions are also suggest including their interest rate structure in their annual report and are kindly requested to fully co-operate and sincerely support the research students.

Avenues for the Further Study

- Monetary policy and its effect of interest rate structure using primary data.
- Fiscal policy and its effect of interest rate structure using primary data.
- Interest rate structure and relation between deposit, lending and inflation rate in financial institution of Nepal.
- Real interest rate trend, the influence of saving, investment and other factor.
- If there is link between loans, investment rate & deposit.

BIBLIOGRAPHY

Abkeh, P.A. (1990). *Innovations in Modeling the Term Structure of Interest Rate;* Economic Review, Federal Reserve Bank of Atlanta.

American Institution of Banking (1972).

Bhandari, D. R. **(**1998). *The Impact of Interest Rate Structure on Investment Portfolio of Commercial Banks of Nepal*. Kathmandu: An Unpublished MBA Thesis, Submitted to faculty of Management, Tribhuvan University.

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

Bhatta S**. (**2004). *Interest Rate and its Effect on Deposit and Lending*. Kathmandu: An Unpublished MBS thesis, Tribhuvan University

Bhattarai, Rabindra (2007). *Investments*. Kathmandu: Buddha Academic Publisher

Cheney, J.M. & Moses, E.A.(1999). *Fundamental of Investment*. New York: West Publishing Company.

Commercial Bank Act (2031).

Cooper, S. K. & Fraser, R.D. (1983). *The Financial Marketplace*. California: Addison-Wesley Publishing Company.

Dangol N. **(**2003). *Impact of Interest Rate on Financial Performance of Commercial Banks*. Kathmandu: An Unpublished Master Degree Thesis, Submitted to Faculty of Management, Tribhuvan University.

Famma, W. & Miller, J. (1998). *The Theory of Finance*. New York: The Dryden Press.

Francis, J.C. (2003). *Investment Analysis and Management. (11th Edition).* New York: Post Graduate Publications.

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

Gupta, S.P. (2002). *Statistical Methods.* New Delhi: Sultan Chand and Son's.

Joshi, P.R. (2001). *Research Methodology*. Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd.

Joshi, S. (1999). *Micro & Macro Economic Analysis*. Katmandu: Taleju Prakashan.

Kohn, M. (1999). *Financial Institutions & Markets.* New York: Tata McGraw Hill Publishing Co. Ltd.

Kothari, C.R. (1994). *Research Methodology, Methods and Techniques*. New Delhi: Vikash Publication House Pvt. Ltd.

Kshetry, C.K. (1980). *Interest Rate Structure and Its Relation with Deposits Inflation and Credit in Nepal.* An Unpublished Master Degree Thesis, Submitted to Faculty of Management, Tribhuvan University

Kuikel R. (2008). *Interest Rate Structure and Its Relation with Deposit, Lending and Inflations in Nepal*. An Unpublished Master Degree Thesis, Submitted to Faculty of Management, Tribhuvan University.

Pant, G.D. & Chaudhary, A.K. (1999). *Business Statistics and Mathematics.* Kathmandu: Bhandupuran Prakashan.

Pant, P.R. (2003). *Business Environment in Nepal*. Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd.

Radhaswamy, M. & Vasudevan, S.V. (1979). *Text Book of Banking.* New Delhi: S. Chand & Company Ltd.

Rajbhandary, N.B. (1994). *The Interest Rate Structure of Commercial Banks in Nepal.* An Unpublished Master Degree Thesis, Submitted to Faculty of Management, Tribhuvan University

Rose, P.S. (2003). *Money and Capital Markets: Financial Institution and Instruments in a Global Marketplace*. Chicago: Irwin.

Samuelson, P.A. & Nordhus, W.D. (1999). *Economics. (16th edition).* New Delhi: Tata McGraw Hill Publishing Company Limited.

Sharma, P.K. & Chaudhary, A.K (2058). *Statistical Methods*. Kathmandu: Khanal Books Prakashan.

Sharma, P.K. & Silwal, D.P. (2058). *Text Book of Business Mathematics and Statistics*. Katmandu: Taleju Prakashan.

Sharpe, W.F, Alexander, G. J., & Bailey, J.V. (2003). *Investments.* New Delhi: Prentice Hall of India Private Limited.

Shrestha R. (2008). *Interest Rate Structure and Its Influence on Deposit and Lending of Joint Venture Banks in Nepal*. An Unpublished Master Degree Thesis, Submitted to Faculty of Management, Tribhuvan University.

Shrestha, M.K. & Bhandari, D.B. (2004). *Financial Markets and Institutions.* Kathmandu: Asmita Books Publishers and Distributors.

Shrestha, M.S. (2009). *Fundamentals of Banking*. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

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

Thapa, K.(2008). *Financial Institutions and Market.* Kathmandu: Asmita Books Publisher and Distributors.

Thygerson, K.J. (1992). *Financial Institutions and Capital Markets*. New York: Harper Collings College Publisher.

Vaidhya, S. (2000). *Financial Market and Institutions.* Kathmandu: Taleju Prakashan.

Van Horne, J.C. (1998). *Financial Management and Policy.* New Delhi: Prentice Hall of India Pvt. Ltd.

Weston, J. F. & Copeland, J.E. (1992). *Managerial Finance.* Chicago: The Dryden Press.

Weston, J.F. & Engene, F.B. (2003). *Managerial Finance.* Florida: Los Angel's University of Florida.

Wolff, H.K. & Pant, P.R. (2005). *Social Science Research & Thesis Writing.* Kathmandu: Buddha Academy & Distributors.

Reports

Nepal Rastra Bank (2003 – 2009). *Banking and Financial Statistics.* No.45 to 52, Kathmandu.

Nepal Rastra Bank (2003– 2009). *Economic Report.* Kathmandu.

Nepal Rastra Bank (2003). *Report of Fiscal Year 2002/03.* Kathmandu

Nepal Rastra Bank (2007). *Micro Economic Indicators.* Kathmandu.

Nepal Rastra Bank (2009). *Quarterly Economic Bulletin.* Kathmandu.

Websites

www.bok.com

www.everestbankltd.com

www.hbl.com

www.mof.gov.np

www.nabilbank.com

www.nrb.org.np

www.scbl.com