

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

The development of the financial sector thus reflects the development level of the country and hence the economy of the whole country is represented by the financial sector. The economic growth of the country is based on the financial market; it is in fact the backbone of the economy. The different financial institutions such as banks, insurance companies, co-operatives, financial companies, mutual funds, foreign exchange market etc are small sub divisions of huge financial division. These institutions not only facilitate and improve the distributions of money, fund and capital via payment mechanism, security trading, transmutations, risk diversification and portfolio management but also mobilize saving and invest in various enterprises of the national economy with a motive of reducing poverty in long term and improving the employment opportunity. In another words these financial sectors are established to provide the society with better chances and that will lead to the development of the society and country as a whole.

The need for socio-economic development for prosperity of the nation is realized when the expectation and ambition of people in the present society rose. In order to fulfill the national goal and objectives, the government felt that it's the responsibility that also the public sector has to carry and help government in building nations economy. With this main idea behind, the government involved itself, into the establishment of agriculture, commerce, public, works, transport and other sectors. The main sector that proved to be effective for the development of the nations' economy was the banking institutions. The government was compelled to undertake a liberal economic policy for operating the banking division. About the financial liberalization process it said that "the interest rate deregulation curtailment or elimination of directed credits, lifting entry and exit barriers for financial intermediaries, restructuring of banking system and institution for regulatory and supervisory mechanism is some of the key components of such liberalization". This led to the influx of commercial banks in Nepal.

The existence of any society without financial institutions at present is beyond imagination. The system will automatically lag behind to the old age for instance barter system, the time when no financial assets or no liability of any kind existed when the financial institution is removed. Even in the least developed economies some forms of transfer of financial resources occur, an economy without financial liabilities there would be no means whereby the ultimate savers could be matched with ultimate investors.

Financial institution in Nepal, as an organized sector for capital mobilization, was started after the advent of Nepal Bank Limited in 1994. It was the pioneer institution of modern banking system. Before that “Tejrath Adda” was fulfilling the banking need of the people, to some extent, by providing Loan on security. Nepal Rastra Bank was established on 14th Baisakh 2013 B.S. under Nepal Rastra Bank Act 2012 to monetize the economy and to avoid the dual monetary system. Nepal Rastra Bank is the Central Bank, which formulates monetary and fiscal policies to strengthen and develop the financial system. A fully government owned bank; Rastriya Banijya Bank was established in 2022 B.S. under its respective Act. After the restoration of the democracy in 2046 B.S. and liberalization policy adopted by government, some commercial banks, development banks and finance companies emerged to provide banking facilities to the people. According to NRB, at present 31 commercial banks, 81 development banks, 79 finance companies, 15 co-operatives and 46 financial NGOs are in operation taking license from Nepal Rastra Bank.

Different economist has their own view point for expressing the effectiveness of the financial institutions for the promotion and facilitation of economic development. A study conducted by J. Schumer, about the relation between the growth of the financial institution and economic development, defined the financial institution as one of the two key factors and the other being the entrepreneurship. In another study by John G. Gurley, he did not take these factors as essentials for the growth or development of economy. The opinion that serve as a bridge between the two author was the view of other researcher Rondo Camron who emphasize that the importance of the financial institutions lies somewhere between the two extremes. These opinions do differ in the order of merit to

the role of financial institution in the process of economic development but they never ignored its significance.

Financial institution occupies an important place in a nation's economy. A financial institution is indispensable in a modern society. It plays a pivotal role in the economy development of a country and forms the core of the money market in an advanced country. It has played an immensely valuable role in the economic life of every country big or small. The special interest of economist in the activities of financial institution is due to the monetary nature of the deposit liabilities of the institution.

To sum up, bank is a formal financial institution, which receives money, which is paid back by honoring cheque. The main objective of financial institution is to collect scattered saving and to supply to the needy person or organization.

Savings is the amount left when expenditure is subtracted from the income. People with more income save more than people earning less. Household saves more than that of the business and government in general. For household, saving equals to current income minus current expenditure. For business sector savings include current earnings retained inside business firms after payment of taxes, stockholder's dividend and other expenses. Government saving arise where there is a surplus of current revenue over expenditure. To induce more saving, financial institution can play a vital role by providing attractive interest rate and offer a different scheme. The funds are collected mainly in the form of deposits (time and saving deposits) by the financial institution which are used as a part of capital investment. The inadequacy of capital formation is to some extent wiped out via collecting deposits from several branches such as households, business and governments. Disposal income is the personal saving which is not consumed. The large parts of the income in the developing and poor countries are consumed to fulfill the daily needs of the people and they saved less. Even if some people are able to save their money, they show their interest to invest such surplus funds on non-productive sectors like gold, land, vehicles and so on. Banks and financial companies, as intermediaries, can attract savers to save more by providing them attractive interest rate and accept the deposit. Banks

provides loan to borrowers who are in need of money from the money accumulated in the form of deposit and capital of bank while granting loan. Bank charges a certain percentage of interest to the borrower and borrower has to pay that interest for using banks' money. Interest on loan also varies according to the nature of loan, whether loan is of short term or long term. An appropriate interest rate structure greatly affects the collection of deposits, mobilization of saving (only in productive sector) and profit position of any financial institution, which in turn, affects the economic betterment of the whole country.

1.2 Interest

To examine how money affects economic activity, we focus on the interest rate, which is often called "The price of money". Interest is the payment made for the use of money. The interest rate is the amount of the interest paid per unit of time expressed as a percentage of the amount borrowed. In other words, people must pay opportunity to borrow money. The cost of borrowed money, measured in rupee per year per rupee borrowed, is the interest rate. Financial institutions, as financial intermediaries, collect money from savers in the form of deposit and provide that to business sector in the form of loan. These institutions pay the interest to the depositors for the money-borrowed and charge interest from the borrowers for money that has been lent.

As defined earlier, the interest rate is the price of money: the price renting the use of resources that money commands for a specified period. The interest rate plays a vital role in the allocation of resources and in the decision making of consumers and business. For example, an increase in the interest rate provides additional incentives to individuals and others to postpone current consumption and thereby free resources for investment. Government policies intended to expand the volume of saving; should aim at increasing the attractiveness of saving by increasing the return to saving- the interest. Interest rates send price signals to borrowers, lenders, and savers. Higher interest rates generally bring forth a greater volume of savings and stimulate the lending of funds. Lower rates of interest, on the other hand, tend to dampen the flow of borrowing and reduce lending activity. Higher interest rates tend to reduce the volume of borrowing and

capital investment, and lower rates stimulate borrowing and investment spending (Rose, 1997:301).

1.2.1 Interest Rate of Commercial Bank in Nepal

With regarding to the interest to be paid for the deposits and interest to be charged for loans and advances by the licensed institutions.

- a. **Provisions Relating to Interest Rates:-** The "A", "B" and "C" Class licensed institutions shall be free to fix interest rates for both deposits and lending, including fixation of types of interest and procedures on their own.
- b. **Prohibition for Fixing Flat Rate of Interest:-** The licensed institutions other than "D" Class institutions shall not be allowed to fix flat interest rates on the loan and advances.
- c. **Interest Rate to be approved:-** Licensed institutions shall implement the interest rates for deposits and lending, procedures for calculation of interest, penal interest, commission and service charges. The institutions may increase the interest rate for deposits up to a point of 0.5 percent over the published rates, but in case of interest rate on lending it should not be higher than published rate. Provided that;
 1. Interest rate may be fixed on the agreement between bank or financial institution and customer in the case of perpetual fund or in case of deposit having the maturity period of more than five years.
 2. No provision of published interest rate shall be applicable in case of the institutional deposit to be collected on the basis of bidding.
- d. **Submission of Return on Interest Rate:-** The licensed institutions shall compulsorily furnish the statements of interest rates on deposits and lending to Banks and Financial Institutions Regulation Department and the concerned Supervision Department within seven days of the end of each quarter. Moreover, the licensed institutions shall submit all provisions and procedures relating to

interest rates according to Clause 3 above at the time of beginning of the implementation and changes made thereto within seven days.

- e. **Interest Rates to be published:-** The national level "A", "B", and "C" Class licensed institutions shall publish the particulars according to Clause 4 above at the time of each amendment made in the interest rates on deposit and lending in national daily newspapers. The regional/ district level institutions shall publish the particulars of changes in the requirement of about the minimum level of balance to be maintained in the regional/district level newspapers. Provided that the "D" Class institutions may publish the rates putting the information on its notice board.

- f. **Provisions of recording interest income:-** The interest accruals on loan and advances shall be recognized as income on cash basis only. The interest accrued but not realized in cash shall be recognized in the year of cash realization and the account shall be reconciled accordingly. Interest receivable for a period shall be debited to "interest receivable account" and credit to "interest suspense account".

- g. **Provisions relating to providing interest:-** In situation where interest on lending by banks and financial institutions on a quarterly basis, it shall be credited to the savings account of depositors at least on every 3/3 months basis. Interest to be provided to depositors shall be provided at least on average deposit balance of week, month, quarter or other duration on the basis of which the interest has to be calculated according to the policy of the concerned bank and financial institution to provide interest on deposit liability.

(**Note:**"Average deposit balance" means the average of daily closing balance to be maintained after the end of daily transaction.)

Profile of the banks under study

There are 31 commercial banks operating in Nepal taking 'ka' in rank. Among them only 2 banks are taken as sample for study. The general introduction of the banks under study is as:

Himalayan Bank Limited (HBL)

Himalayan Bank Limited (HBL) was incorporated in 1992 by few distinguished business personalities of Nepal in partnership with Employees Provident Fund and Habib Bank Limited, one of the largest commercial bank of Pakistan. Banking operation commenced from January 1993. It is the first commercial bank of Nepal whose maximum shares 80% are held by the Nepalese private sector and remaining by foreign. Besides, commercial banking services, the bank also offers industrial and merchant banking services. The bank has 23 branches in and outside of Kathmandu valley including a Himalayan exchange center. Himalayan Bank Limited has always been committed to providing a quality service to its valued customers, with a personal touch. All customers are treated with utmost courtesy as valued clients. The bank, wherever possible, offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers, Himalayan Bank Limited has adopted the latest banking technology. This has not only helped the bank to constantly improve its service level but has also prepared the bank for future adaptation to new technology. The bank already offers unique services such as SMS banking and Internet Banking to customers and will be introducing more services like these in the near future.

Everest Bank Limited

Everest Bank Limited (EBL) started its operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 26 branches across the nation. Punjab National Bank (PNB), joint venture partner of the bank (holding 20% equity in the bank) is the largest nationalized bank in India having 113 years of banking history. PNB is a technology driven bank serving over 35 million

customers through a network of over 4,500 branches spread all over the country with a total business of around INR 2178.74 billion. Management of the EBL is being handled by PNB under the Management Service Contract. The bank has been conferred with “Bank of the Year 2008, Nepal” by the banker, a publication of financial times, London. The bank was bestowed with the “NICCI Excellence award” by Nepal India chamber of commerce for its spectacular performance under finance sector.

The shareholding pattern of the bank is 50% promoters, 30% public and 20% Punjab National Bank.

1.3. Statement of the Problem

The economic growth and development has direct relation with interest. The low interest rate is the factor that drives the investment in positive momentum According to the economic theory (other things remain constant). The higher the investment, higher will be the production, employment, income will also increase and ultimately the economy will grow too. So the purpose of this study is to explore how the investment is related to the economic growth. Does decline in interest rate increases the lending activities? Or what is the actual condition on this regard in Nepalese financial market place? If the condition is not as per theory then -what are the possible causes for such effects? Focusing on the Nepalese context, the investment is low in productive sectors due to unavailability of sufficient finance, security and other factors. Nepal's main export is basically raw materials. It means that Nepal is exporting raw materials instead of producing goods and services from these. If cheap financing is available, many factories could be established to reap benefits from utilization of resources, which would increase the employment, standard of living and status of country economy.

In the same manner, market interest rate is the sum of real rate plus inflation premium. But this may or may not occur in real practice. So this study is going to identify: Is there any positive relation of interest rate and inflation as per theory? Similarly, high interest rate is stimulus for high savings (deposits) but this may not the case in real world as people deposit more even in less interest rate due to security, convenience and other

reasons. Thus through this study, it is going to discover: what is the relation of deposit and interest rate?

More specifically, this study seeks to solve the answer for following questions.

1. What is the effect of high interest rate on savings (deposits)?
2. What is the actual condition of interest rate in Nepalese financial market place?
3. Are borrowers of Nepalese market sensitive to the interest rate of credit? Alternately, what is the relationship between interest rate and borrowing amount?
4. What is the position of interest rate spread and loan and advance ratio in Nepalese context?
5. What is managerial perceptive in regards to financial performance of financial institutions?
6. What is the future scope of financial institutions?
7. How the public savings are being mobilized? Or, what portion of total saving being mobilized in productive sectors?
8. To what extent competition exists among financial institution in terms of interest rate?

1.4. Objective of the Study.

- To examine the sensitivity of interest rate to the investment (lending).
- To explore the relation of interest rate with deposit amounts in Nepalese market.
- To understand the perception of management in terms of financial performance of HBL and EBL.

1.5. Significance of the Study

Interest rate attracts borrowers, lender, savers and investor. Economic growth depends upon circulation of money and financial system that facilitates it. It can be simplified with an example; higher interest rates generally bring forth a greater volume of savings

and stimulate the lending of funds. Lower rates of interest on the other hand, tend to dampen the flow of savings and reduce lending activity but increase the demand for loan.

Similarly inflation is also another important factor in the financial market. All countries in the world have some magnitude of inflation. While this study is being conducted, the existing inflation rate in our country is around 10% and to be estimated around 11% for this current year. According to Irving Fisher, inflation rate is added to real rate of return to determine the market interest rate. So higher the inflation, higher will be the interest rate. But in real world, the aforementioned theory may not come true, especially for developing country like Nepal because, most of the theories of financial markets are determined by the studies which had been conducted on developed countries like USA, UK and so on. So it is quite necessary to develop some ideas about the interest rate and its impact upon deposits, credit and inflation in the Nepalese context. By doing so, more knowledge can be achieved about the true pictures of Nepalese market. This study is also considered to be useful to various parties such as further researchers, students, teachers, financial institutions, general individuals etc.

1.6. Limitation of the Study

As a master degree thesis this study certainly has limitation. This study is limited by followings:

1. Only one factor -interest rate- is taken for the study. Impact of other aspects besides interest has not been studied.
2. Reliability of this study depends upon the accuracy of published data and the genuineness of respondent.
3. The samples have been drawn at random for convenience, so there may exist some sampling error. The sample size may also not be sufficient to generalize the findings.
4. The sample are taken only from commercial banks, other financial intermediaries are not included in the study.
5. Only few statistical tools like arithmetic mean, coefficient of correlation, t-test and financial tools like loan advance ratio and interest rate spread has been used for data analysis. Sophisticated tools and methods have not been used.

6. Survey has been conducted with limited questionnaire and limited people involved.

1.7. Organization of the Study

The study has been divided into five chapters to make study more systematic.

Chapter I. Introduction

The first chapter includes background, statement of problems, objectives and organization of study.

Chapter II. Review of Literature

The second chapter includes the conceptual framework, and reviews the issues related to the study.

Chapter III. Research Methodology

The third chapter is concerned with the research methodology consisting of research design, sources of data, population & sample, financial & statistical variables etc.

Chapter IV. Presentation, Analysis and Findings of Data

The fourth chapter presents the findings, presentation and analysis of result of financial performance of selected finance companies. Major findings is also including at the end of the chapter four.

Chapter V. Summary, Conclusion and Recommendation

The fifth and final chapter consists of summary, conclusion, recommendation and various suggestions for the improvement of future performance of the company.

Besides these, recommendation, viva-voce sheet, declaration, acknowledgement at the beginning and bibliography and appendices at the last section of the study are also included.

CHAPTER-II

REVIEW OF LITERATURE

The literature review is designed to familiarize the investigator with any relevant information pertaining to the topic being studied (Black & Champion, 1976:107). A literature review is an essential part of all studies. It is a way to discover what other researchers have covered and left in the area. A critical review of the literature helps the researcher to develop a thorough understanding and insight into previous research works that relates to the present study. It is also a way to avoid investigation problems that have already been definitely answered. Thus a literature review is the process of locating, obtaining, reading and evaluating the research literature in the area of the student's interest (Wolf & Pant: 2008). The purpose of literature review is to find out what research studies have been conducted in one's chosen field of study and what remains to do. The primary purpose of literature review is to learn not to accumulate.

2.1 Theoretical Review

2.1.1 Meaning of Interest

The interest rate is the price of money; the price of renting the use of the resources that money commands for a specified time by the free interplay of supply and demand in a market economy. The interest rate plays a vital role in the allocation of resources and in the decision making of consumers and business. Government policies intended to expand the volume of saving should aim at increasing the attractiveness of saving by increasing the return to saving, the interest rate.

2.1.2 Theories of Interest

It is a rate of return presenting no risk of financial loss to the investor and representing the opportunity cost of holding idle cash, 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 issued by individual borrowers. For

example, only the government can borrow at risk-free interest rate; 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 (Rose: 1997:403). Numerous interest rates exist in the financial markets and these different rates are due to the risk premium associated with the issuer. Even securities issued by the same borrowers often carry a variety of interest rates. In this section, we focus upon those basic forces that influence the level of different interest rates. To uncover these basic rate-determination forces, we must make a simplifying assumption. In this chapter we 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 closest approximation to this pure rate in the real world is the market yield on the government bonds minus inflation. The rate of interest on Treasury bond is called risk free rate of interest which consists of real rate of interest plus premium for inflation.

In this study mainly four theories of interest are reviewed. They are:

The Classical Theories of Interest Rates

The determinant of pure or risk free interest rate is a concern of this theory which is one of the oldest. Number of British economist put forward this theory during the 18th and 19th century and was further elaborated by Irving Fisher in 1930. The classical theory argues that the rate of interest is determined by two forces:

- The supply of savings, derived mainly from households and
- The demand for investments capital comes mainly from the business sector.

Saving by Households

Families and individual of a society is the main people saving the most in the modern industrialized economies. For these households, saving is simply abstinence from consumption spending. Current savings, therefore, are equal to the difference between current income and current consumption expenditures. In making the decision on the timing and amount of saving to be done, households typically consider several factors:

the size of current and long-term income, the desired savings target, and 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 incomes.

Although income levels probably dominate saving decisions, interest rate also plays an important role. Interest rates affect an individual's choice between saving and current consumption. The classical theory of interest assumes that individual have a definite time preference for current over future consumption. A rational individual, it is assumed, will always prefer 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 to offer a higher rate of interest on current savings. If more were saving in the current period at a higher rate of return, future consumption and future enjoyment would be increased. The classical theory considers the payment of interest as a reward for waiting the postponement of current consumption in favor of greater future consumption. Higher interest rate increase the attractiveness of saving (and future consumption) for some quantity of current consumption. This so-called substitution effect calls for a positive relationship between interest rates and the volume of savings. Higher interest rates bring forth a greater current volume of savings.

Saving by Business Firms:

To purchase securities and make loans, but only household but also businesses save and direct their savings into the financial market. Retained earnings is the form in which most of the businesses hold their saving balanced (as reflected in their equity or net worth accounts). The increased retained earnings are reported by business each year and is the key measure of the volume of the current business saving. And these retained earnings supply most of the money for annual investment spending by business firms. The volume of business saving depends on two key factors: the level of business profits and the dividend policies of corporations. These two factors are summarized in the retention ratio, the ratio of retained earnings to net income after taxes. This ratio indicates the

proportion of business profits retained in the business for investment purposes rather than paid out as dividends to the owners. The critical element in determining the amount of business savings is then the level of business profits. If profits are expected to rise, business will be able to draw more heavily on earnings retained in the firm and less heavily on the money and capital markets for funds. The result is a reduction in the demand for credit and a tendency toward lower interest rates. On the other hand, when profits falls but firms do not cut back on their investment plans, they are forced to make heavier use of the money and capital markets for investment funds. The demand for credit rises and interest rates may rise as well. 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 heavily in financing projects. Conversely, lower interest rates encourage greater use of external funds from the money and capital markets.

Saving by Government

Governments also save, though less frequently than households and businesses. In fact, most government saving (i.e. a budget surplus) appears to be unintended saving that arises when government receipts unexpectedly exceed the actual amount of expenditures. Income flows in the economy (out of which government tax revenues arise) and the pacing of government spending programs are the dominant factors affecting government savings.

The Demand for Investment Funds

The savings made by business, government and households are important determinants of interest rate but they are only one side of determinants. The factor is investment, expenses made by business firms, government and in some case households. Business requires huge amounts of funds each year to purchase equipment, machinery and inventories and to support the construction of new buildings and other physical facilities. The majority of business expenditures for these purposes consist of what economists call

replacement investment. But according to the classical economist, interest rate and invest able fund have inverse relationship. At low rates of interest, more investment projects become economically viable.

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

According to the classical economists, the interest rates in the financial markets were determined by the interplay of the supply of saving and the demand for investment. 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 Loan Able Fund Theory:

In this theory, the main theme is the supply and demand for loadable funds (i.e. lending & borrowing) determines the interest rate. This explanation emphasizes the flow of funds by suppliers of loan able funds (lenders) and the flow of funds by the demanders of loan able 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 loan able fund theory is a short-run, partial equilibrium explanation in which some factor or 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 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 loan able fund theory focuses on the factors that underlay the supply and demand schedules for loan able funds and on their interaction.

Supply of Loan able Funds:

The major sources of supply of loan able fund are from two sources:

- The amount of saving by households, business, governments and
- The amount of new money created by the commercial banking system.

Saving:

The decision to save is the decision to forgo current consumption in order to have a larger quantity of consumption in the future (Cooper & Donald: 1983:304). Saving refers to the postponement of current consumption. Individual or household save for a variety of reasons but there is little evidence to suggest that the quantity of loan able funds supplied through saving is clearly influenced by the level of the interest rate. A higher interest rate represents a greater reward to the saver for postponing current consumption and thus might be expected to produce a higher quantity of saving for some individuals. In general case, the quantity of savings supplied by individuals is principally determined by the level of income and it is influenced to a lesser degree by the level of interest rates. Business saving refers to the net income after taxes of the firm, less any cash dividends i.e. retained earnings.

New Money:

Although the volume of saving is the principal source of loan able funds in financial markets, the supply of the loan able funds may be increased through the creation of new money beyond the amount made possible by current saving. The amount of new money created is determined jointly by the actions of the commercial banking system and the central bank. Commercial banks use any excess reserves to make loans and purchase securities and create money (demand deposits) through the credit creation process. However, the ability of commercial bank to create money is limited by the central bank through the use of its monetary policy tools like open-market operations, reserve requirement changes, and discount rate changes.

The Demand for Loan Able Fund:

The demand for loan able fund is composed of the demand by individual, business and governments.

Consumer Demand:

Domestic consumers demand loadable funds to purchase a wide variety of goods and service on credit. Recent research indicates that consumers are not particularly responsive

to the rate of interest when they seek credit but focus instead principally on the non price terms of a loan, such as the down payment, maturity and size or installment payments. This implies that consumer demand for credit is relatively inelastic with respect to the rate of interest. Certainly a rise in interest rate leads to some reduction in the quantity of consumer demand for loan able fund (particularly when home mortgage credit is involved) whereas a decline in interest rates stimulates some additional consumer borrowing. However, along the consumer's relatively inelastic demand schedule, a substantial change in the rate of interest must occur before the quantity of consumer demand for funds changes significantly.

Domestic Business Demand:

The credit demands of domestic business generally are more responsive 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. As noted earlier in our discussion of the classical theory of interest, a high interest rate eliminates some business investment projects from consideration because their expected rate of return is lower than the cost of funds. On the other hand, at lower rates of interest, many investment projects look profitable with their expected returns exceeding the cost of funds. Therefore the quantity of loan able funds demanded by the business sector increases as the rate of interest falls.

Government Demand:

Government demand for loan able funds is a growing factor in the financial markets but doesn't depend significantly 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 the power both to tax and to create money to pay its debts. State and local government demand on the other hand, is slightly interest elastic because many local governments are limited in their borrowing activities by legal interest rate ceilings. When open market rates rises above these ceilings, some state and local governments are prevented from offering their securities to the public.

Total Demand for Loan able Fund:

The total demand for the loan able 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 businesses, consumers and governments to curtail their borrowing plans; lower rates bring forth more credit demand.

The Equilibrium Rate of Interest in the Loan able Funds Theory:

Two forces of supply and demand for loan able funds determine not only the volume of lending and borrowing in the economy but also the rate of interest. The interest rate tends towards the equilibrium point at which the supply of loan able funds equals the demand for loan able funds. If the interest rate is temporarily above equilibrium, the quantity of loan able funds supplied by domestic savers and foreign lenders, by banking system, and from the dis-hoarding of money exceeds the total demand for loan able funds and the rate of interest will be bid down. On the other hand, if the interest rate is temporarily below equilibrium, loan able funds demand will exceed the supply. The interest rate will be bid up by borrowers until it settles at equilibrium once again.

The Liquidity Preference Theory of Interest Rate:

The loan able funds approach to interest rate determination focuses on supply and demand for loan able fund. An alternative approach the liquidity preference view focuses instead on the supply and demand for money. It is assumed that individuals inherently prefer money among all financial assets since money can be used to make payments and is thus the most liquid assets. Wealth holders are persuaded to hold financial assets other than money only because these non-money assets offer an interest return greater than between the yields by money. Further, greater the spread between the yields on non money financial assets and money, lesser will be the demand for money holdings and greater the demand for other financial assets and vice versa. The outcome of course, is that public still holds, in the aggregate, the same amount of money but at the lower rate of interest, this is now the desired amount.

The Rational Expectation Theory:

This theory is new to the financial market so it is in still development stage. The main theme of this theory is that "money and capital markets are highly efficient institutions in digesting new information affecting interest rates and security prices" (Rose: 1997:314). This theory assumes that equilibrium interest rate depends upon the change in investor's expectation regarding future security prices and return. 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 the absence of new information, next period's interest rate will be equal to current periods interest rate. In other words, the knowledge of past interest rate will not be a reliable forecast of future interest rate. In a perfect efficient market it is impossible to win excess returns continuously by trading on publicly available information.

The important assumptions and conclusions of the rational expectation theory are:

- The price of securities and interest rates should reflect all available information and the market uses all this information to establish a probability distribution of expected future prices and interest rates
- Change in rates and security prices are correlated only with unanticipated information
- The correlation between rates of return in successive time periods is zero
- No unexploited opportunities for profit can be found in the securities' markets
- Transaction and storage costs for securities are negligible and information costs are small relative to the value of securities traded and
- Expectation concerning future security prices and interest rates are formed rationally and efficiently.

If the money and capital markets are highly efficient in the way we have described, this implies that interest rates will always be at or very near their equilibrium levels. Any deviation from equilibrium rate dictated by demand and supply forces will almost instantly eliminate security trader who hope to consistently earn windfall profits from correctly guessing whether interest rate are "too high" (and therefore will probably rise)

are unlikely to be successful in the long run. Interest rates fluctuations around equilibrium are likely to be random and momentary. If market participants were expecting increased demand for credit (with supply unchanged), an unexpected announcement of reduced credit demand implies lower interest rates in the future. Similarly, a market expectation of less credit demand in the future (with supply unchanged) when confronted with an unexpected announcement of higher credit demand, implies that interest rate will rise.

2.1.3 Functions of Interest Rate in the Economy

The interest rate has opposite relation with the value of financial assets. It means that if the interest rate increases, the value of assets decreases and vice versa. This concept is very useful for the valuation of the investable securities. Besides this there are some important functions that interest plays in the economy. It helps to ensure that current savings to flow into investment for promoting economic growth. It also allocates the available supply of credits; specially providing funds to the investment projects with highest expected returns. The supply of money with the public's demand for money is also balanced by the interest rate. And most importantly, serve as a crucial tool for the governmental policy for stimulating or discouraging saving and investment through its influence on the volume of saving and investment. If the economy is growing too slowly and unemployment is rising, the government can use its policy tools to lower interest rates in order to stimulate borrowing and investment. On the other hand, an economy experiencing rapid inflation has traditionally called for a government policy of higher interest rates to slow both borrowing and spending.

2.1.4 Change in Interest & Its Effect upon Value of an Asset

The price of the security and its yield (rate of interest) has inverse relationship. It means that a rise in yield implies a decline in price; conversely, a fall in yield is associated with a rise in the security's price.

The investing funds in financing assets can be viewed from two different perspectives, the borrowing and lending of money or the buying and selling of securities. Similarly 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 loan able funds (borrowers) supply securities to the financial marketplace and suppliers of loan able funds (lenders) demand securities as an investment. Hence, the equilibrium rate of return or yield on a security and the price of that security are determined at once and at same moment. The borrowing and lending of loan able fund are simply different aspects of the same phenomenon although they are determined at once and at the same instance.

2.1.5 Factors Influencing the Difference in Interest Rates:

In real world, different financial institution quotes different interest rate. It means that the same types of instrument carries different interest rate so there is presence of interest spread. Although it is assumed deposit increases as interest increases but interest rate is affected by numerous factors. For this difference there are numbers of factors influencing the difference in interest rates (Thygerson: 1993:314).

1. Credit or Default Risk:

Credit or default risk involves the potential that a saver will receive less principal and interest on the financial claim than the contract specifies. Default risk is related to the probability that some or all of the initial investment will not be returned. The degree of default risk is closely related to the financial condition of the company (Cheney & Moses). Credit risk requires making estimates of the potential for loss. This probability is then converted into an interest rate premium, the credit or default risk premium and added to the saver's required nominal yield. Typically, the securities issued by the government, (esp. T-bills), are considered to be credit risk free.

2. Marketability Risk:

Marketability is the capability of being sold quickly at low transaction cost (Kohn: 1999:318). Marketability risk deals with the degree of difficulty in being able to convert a financial claim into cash at its most recent transaction price or very close to it. Savers who purchase investments with poor marketability 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.

3. Call or Prepayment Risk:

Some financial claims offer the borrower the right to repay the principal debt prior to maturity, on financial claims like bond, these provision are referred to as call provision. On financial claims such as home mortgage and installment auto loans, they are called pre-payment provisions. These provisions are options. The borrower has the option to call or prepay the debt. The investor in the financial claim that is callable or subject to repayment accepts risk. The risk is that if interest rates fall, the borrower will call the bond or prepay the mortgage. The investor receiving the cash funds that he or she cannot reinvest it at an interest rate as high as the rate on the previous investment. This risk is called a call or prepayment risk. The compensation that investors demand to accept this risk is an additional interest spread reoffered to as the call option premium.

4. 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 (Thygeson: 1993:315).

5. Exchange Rate Risk:

As our financial markets have become more global, there has been a significant growth in the borrowing and investing in foreign denominated financial claims. A Nepalese company establishing a manufacturing facility in Belgium might be inclined to issue bonds denominated in Belgium francs rather than Nepali Rupees. Investors also have available to them many investments that are denominated in foreign currencies. This transaction involves exchange rate risk. This risk relates to the potential that the rate of exchange between the domestic currency and foreign denominated currency will change as a result of any number of factors. The primary risk for the borrower is that the value of the domestic currency. This results in an unexpected cost on the international loan. Since the loan would have to be repaid in the foreign currency that has risen in value relative to

the domestic currency. This potential change in currency values must be reflected in computing the cost of borrowing.

6. Taxability:

The final factor influencing the change in interest rate is taxability. Financial claim income is typically subject to taxation. Since the value of a financial claim is based on its anticipated cash flow, taxation acts to reduce those cash flows. Not all incomes are taxable equally.

2.2 Concept of Deposit:

Deposit is a sum of money lodged with a bank, discount house or other financial institution (Shrestha & Bhandari). Deposit is nothing more than the assets of an individual which 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 (1974) defines "Deposits" as the amount deposited in a current, savings or fixed accounts of a bank or financial institution (Bhandari:2004:104). The deposits are subject to withdrawals by means of cheques or on a short notice by customers. There are several restrictions on these deposits, regarding the amount of deposit, number of withdrawal etc. They are used more as investments and hence they earn some interest. The rate of interest varies depending on the nature of the deposits. The bank attracts deposits from customers by offering different rates of interest and different kinds of facilities. 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 s/he should deposit his surplus funds in current deposit a/c, saving deposits or fixed/time deposit a/c. Bank deposits arise in two ways. When the banker receives cash, it credits the customer's account, it is known as a primary or a simple deposit. People deposit cash in the banking system and thereby convert one form of money, cash, into another form, bank money. They prefer to keep their money in deposit 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 grants a loan to a customer it doesn't usually pay cash but simply credits the customer's account with the amount of loan. Of course, there is

nothing that prevents the borrower from withdrawing the entire amount of borrowing in cash but quite often s/he retains the amount with the bank in a deposit.

2.2.1 Types of Deposit

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

Current Deposit:

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

Saving Deposit:

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

Fixed Deposit:

Fixed deposits constitute a very important resource for banks as bank need not keep greater reserve in respect of such deposits. Under the commercial Bank Act 2031 (1974),

“Fixed account means as account of amounts deposited in a bank for certain period of time.” The customers opening such account deposit their money in the account for a fixed period. Usually, only the person or institution who wants to gain more interest opens such type of account. High interest rate is paid to this deposit as compare to saving deposits. The bank and the customer can take benefit from this deposit. The 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 returned to the customer after expiry of fixed time.

In England these deposits are repayable subject to a period of notice and hence known as time deposit or time liabilities means that these are withdraw able subject to a period of notice and not on demand (Radhaswamy & VasuDevan: 1979). Fixed deposit receipt is not transferable by endorsement and certainly not negotiable. However the debt covered by the fixed deposit receipts can be assigned. Bank generally gives loans up to 90% of the deposit against the security of the deposit. For this bank charge some interest higher than the interest allowed on the deposit.

2.2.2 Importance of Deposit

Deposit arises from saving. An individual's income equals consumption plus saving. S/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. And the borrowers from banks, invests this fund in productive sectors yielding more return than the borrowed interest. This investment leads to create new employment opportunity in the economy. Ultimately due to new employment the purchasing power of the economy increases and finally GDP and growth of the country occurs. It means that the deposit has very important role in the economy. There is a direct relationship between deposit of banks and the investment in the economy. If the volume of deposit is low, the investment in the economy also lags behind due to lack of resources. The deposit of banks is the accumulated capital which can directly be invested. There is a great need of such deposit in the developing countries. Deposit includes the idle money of the public, bank being the inter-mediator to accept

this sort of money and help to channelize this in productive sector. So the importance of banks and financial intermediaries is larger in present context.

2.3 Concept of Lending (Credit)

Another important function of commercial bank is to provide different types of loans or credit. The word "credit" means "trusting". 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.

If credit is made to the government the credit is known as public credit and if credit is transacted by the private for his own purposes 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 source of credit to both private and public debtor. Sometimes bank also take credit. There is another type of credit known as investment credit and commercial credit which can be divided according to the purposes of using credit. The former refers to the credit which is used for investment and the latter for trade purposes. Similarly, another classification is consumer's credit and producers' credit. The latter type of credit is the advances made to individuals firms, companies and governments, which are used to facilitate the carrying on of the various branches of utility creation.

2.3.1 Factors affecting the volume of Lending

The volume of credit within a country depends upon different factors. For this study only the effect of interest rate is taken into consideration and other factors are not considered. Some of the factors affecting the volume 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 volume of credit and interest rate of credit has inverse relation.

People invest very little 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 are 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 within the country is high, the volume of credit becomes high. 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 credit may be high. It is due to the lack of cheap money lenders that rural people are deprived of loan. If the banking facilities within the nation are expanded, the volume of credit rises.

5. Basic Infrastructure:

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

6. Political Condition:

Political condition, especially political in-stability, 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, currency condition are also the factors affecting the volume of credit.

2.4 Concept of Inflation

Inflation in common sense is increment in general or average price level in the whole economy. It means that it is the increase in general price level, not the increase in individual prices. Inflation is not a temporary fluctuation in price but it is a sustained and

appreciable increase in price (Joshi: 2056:109). Due to the increase in general level in price, the value of purchasing power of money declines as there is an inverse relationship between the general level of price and value of money. According to Economist Crowther "Inflation means a state in which the value of money is falling i.e. prices are increasing." Inflation is a general rise in prices across the economy. G. Ackley defines inflation as, "Inflation is persistent and appreciable rise in the general level or average level of price." This is distinct from a rise in the price of a particular good or service. Individual prices rise and fall all the time in a market economy, reflecting consumer choices and preferences, and changing costs. If the price of one item - say a particular model of car - increases because demand for it is high, we do not think of this as inflation. Inflation occurs when most prices are rising by some degree across the whole economy.

If the rate of increase in money incomes overcomes the rate of increase in production, there is excess purchasing power in the hands of public. Inflation is reflected in high prices and increased imports. There are many theories regarding how inflation occurs in an economy. Some of these theories are demand pull inflation, cost-push inflation, wage-push inflation etc. Similarly there are various methods of checking inflation, such as, government spending, taxes which lie under fiscal tool of checking inflation and higher reserve requirements, open market operation etc. which lie under the monetary method of checking inflation. But these are not going to be discussed here because these are not the concern of our present study.

2.4.1 Inflation and Interest Rates

Inflation occurs when the average price level in the economy rises. Interest rates represent the "price" of credit. Are they also affected by inflation? The answer could be positive; one can derive from several price levels for the answer to be yes. There is positive correlation between interest rates and inflation.

In other words, increase in inflation increases the interest rates. But the exact effect of inflation on interest rate is not identified yet. On this regards, there are many theories. Here in this case, mainly two theories are going to be discussed.

The Nominal and Real Interest Rates:

Before exploring the relationship between inflation and interest rates, several key terms must be understood. In this connection one should be familiar with nominal rate and real rate of interest. The nominal rate is published or quoted interest rate on a security or loan. These rates are the actual rates that are used to transact with the customers. In other words, “nominal rate of return are money rates of return that are not adjusted for the effect of inflation” (Francis). For example an announcement in the financial press that major commercial banks have raised their prime lending rate to 10 percent per annum indicates what nominal interest rate is now being quoted by banks to their best customers (Rose: 1997:603).

Similarly, the real interest rate is the return to the lender or investor measured in terms of its actual purchasing power. In a period of inflation, of course, the real rate will be lower than the nominal rate. An investment's real rate of interest during some period is calculated by removing the rate of inflation from the nominal return i.e. by using

following equation: $(1 + rr) = \frac{(1 + r)}{(1 + q)}$

Where

rr = real rate of return

r = nominal rate of return

q = inflation rate

The Fisher Effect:

Economic theory tells us that interest rates reflect expectations about likely future inflation rates. In countries where inflation is expected to be high, interest rate also will be high, because investors want compensation for the decline in the value of the money. This relationship was first formalized by economist Irvin Fisher and is referred to as the Fisher's effect (Shrestha & Bhandari). According to Fisher effect, nominal interest rate is related to the real rate by the following equation:

$$\text{Nominal interest rate} = \text{Expected real rate} + \text{Inflation Premium rate} + (\text{Expected real} \times \text{Inflation Premium})$$

According to Fisher, the cross-product term in the above equation (i.e. Expected real rate \times Inflation Premium) is often eliminated because it is usually quite small except in countries experiencing severe inflation.

So the Fisher's equation can be written as

$$\text{Nominal Interest rate} = \text{Expected real rate} + \text{Inflation Premium}$$

Clearly, if the expected real interest rate is held fixed, changes in nominal rate will reflect shifting inflation premium. It means that if inflation premium increases then nominal rate also increases. But this does not necessarily mean that an increase in expected inflation automatically increases nominal interest rates. There are several different views on this matter but according to Fisher expected rate of return tends to be relatively stable over time because it depends on such long term factors as the productivity of capital and the volume of savings in the economy. Therefore, a change in the inflation premium is likely to influence only the nominal interest rate, at least in the short run. The nominal rate will rise by the full amount of the expected increase in the real rate of inflation.

The Harrod-Keynes Effect of Inflation:

There is another view about inflation-interest rate relationship propounded originally by British economist Sir Roy Harrod. This view conflicts with that of Fisher's effect. It is based upon the Keynesian liquidity preference theory of interest rate. Harrod argues that the real rate will be affected by inflation but the nominal rate need not be. Following the liquidity preference theory, the nominal interest rate is determined by the demand for and supply of money. Therefore unless inflation affects either the demand for and supply of money, the nominal rate must remain unchanged regardless of what happens to inflationary expectations. According to this principle, Harrod argues that a rise in inflationary expectations will lower the real rate of interest. In liquidity preference theory, the real rate measures the inflation-adjusted return on bonds. However, conventional

bonds, like money, are not a hedge against inflation, because their rate of return is fixed by contract. Therefore, a rise in the expected rate of inflation lowers investors' expected real return from holding bonds. If the nominal rate of return on bonds remains unchanged, the expected real rate must be squeezed by expectations of rising prices.

2.4.2 Tools to measure Inflation

There is no completely satisfactory way to summarize the price changes that have occurred over a given time period for the large number of goods and services available in the country. Nevertheless, the government has attempted to do so by measuring the cost of specific mix of major items a basket of goods, consisting of specified quantities and qualities of various items of food, clothing, housing and health care products bought by the average urban household (Francis) at various point of time. The "overall" price level computed for this representative combination of items is termed as cost-of-living index. The percentage change in this index over a given time period can be viewed as a measure of the inflation that took place from the beginning of the period to the end of the period (Sharpe, Alexander & Bailey: 2004:253).

Similarly most governments compute a number of alternative price indices in order provide a wider choice for analysis. Nevertheless, many people tend to focus on one index as an indicator of the price level .Generally, in most of the countries, Consumer price Index, CPI, is used as this tools to calculate the inflation rate. The percentage change in the CPI over time measures the rate of inflation, as shown below in equation. The inflation rate is denoted by q.

$$q = \frac{CPI_1 - CPI_0}{CPI_0}$$

Where

CPI_1 = Consumer price index of period 1

CPI_0 = Consumer price index of period 0

Nepal Rastra Bank too, uses CPI as the tools to measure inflation in the country taking 1995/96 fiscal year as base index.

2.4.3 Interest Rate Spread

Interest spread is the difference between average interest earned on earning assets and average interest paid on interest paying liabilities. It can be calculated as follows:

$$\text{Interest rate spread} = \frac{\text{interest income/earning assets} - \text{interest expenses/interest paying liabilities}}{\text{interest income/earning assets} + \text{interest expenses/interest paying liabilities}}$$

2.5 Review of Books, Journals and Articles

Commercial banks are financial institutions which make profit by lending the money that are collected in the form of deposits from their customers. That's why risk associated in lending policy of the banks is always critical. Banks can lose the confidence of the customers and can lead towards bankruptcy, if they don't have a sound credit policy.

Khan and Jain (1988) view in the book "*Financial Management*" The type of relationship to be investigated depends upon the objective and purpose of evaluation. The purpose of evaluation of financial statements diggers among various groups (creditors, shareholders, potential investors, management, government, labor leaders and so on) interested in the results and relationships reported in the financial statements. For example, short-term creditors are primarily interested in judging the firm's ability to pay its currently- maturing obligation."(Khan and Jain, 1988:116).

Again, the same author expressed that "While it is true that general economic conditions and industry practices have a strong impact on the level of receivables, a firm's investments in these type of current assets is also greatly affected by its internal policy.

Joshi, S. and Shrestha, H.P. (2058). in the book "*Principle of Bank and Insurance*", mentions the principle of sound investment policy of commercial bank. In this topic the authors identify the investment policy as profitability, liquidity, shift ability, safety, diversification of risks, capital adequacy, solvency, social welfare etc .

In the book, *Accounting for Financial Analysis and Planning* the writers Dangol, R.M and Prajapati, K.P mention the use of Ratio Analysis as follows

- For expressing trend
- For showing changes in financial statement
- For explaining plan for future
- For setting standard
- For effective control
- For comparing efficiency
- For maintain uniformity
-

Rose, P.S (2003) has emphasized on the factors affecting default risk and interest rates. Rose opines that "Another important factor causing one interest rate to differ from another in the global marketplace is the degree of default risk carried by individual assets. Investors in financial asset 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 times. All debt except some government securities is subject to varying degrees of default risk."

Thakur, A.K. (2059). In an article raises the issue of risk management in the banking sector. According to Thakur, risk should be taken as one of the challenges of the banking industry but it is not sufficient to minimize the potential disasters. Banking risk should be managed as a separate part of the management"

Bhattacharai, (2059) In an article, Bhattacharai, M. tries to indicate the problem of banks' bad debt and non performing asset. According to the author "if a bank cannot recover its loan lending, bank's cash flow will be badly affected." Similarly it can affect the close relationship between depositors .

Karki, (2059). In an article, "*Challenges of non-performing loan management in Nepal*", Karki, U has mentioned the causes of increasing trend of non- performing loan. Karki

identified the major causes such as "poor loan analysis, guarantee oriented loan system, and depreciation on valued assets, misuse of loan, lack of regular supervision of loan.

Pradhan, (2061). In an article, *"Importance of Credit Information Burro and its Activities"* Pradhan, M.L tried to identify the need of credit information burros. In this article the author tried to dig out about the establishment of credit information burro and major activities, which are assured by the Nepal Rastra Bank Act 2058 section 58.

Pendleton (2061) In an article *"Nepal's Financial Reform: A Tardy Pace of Deliberate Race"* Pendleton, B. tries to explore the need and relevancy of financial reform program in Nepal. In this article Pendleton suggests that "HMG has way to go for complete financial reform, restore financial soundness to deserving public, much work is left to be done; however, the Government had set to "Road Map" to complete this phase and continues to improve the reform process, a process vision to sustain the economy for generations to come."

An investment of money is expected to generate additional money. Every investment entails some degree of risk; it requires a present certain sacrifice for a future uncertain benefit. This book describes various ways to select the investments that will provide the maximum future return at an acceptable level of risk. It examines such marketable financial instruments as common stocks, preferred stocks, bonds, put options, and call options, combination options, and futures contracts on the traditional commodities, financial futures and other investments, as well as the risks associated with each. It analyses these assets, the markets in which they are traded, the laws governing the trading, the valuation of the assets, the construction of a diversified portfolio and other important investment management techniques.

Gautam (2061) In an article, *"WTO and Challenges of Financial Services Liberalization in Nepal"* Gautam, B., has put an opinion in the context of financial service liberalization and financial reform in Nepal. According to Gautam "the process of financial services liberalization in Nepal is very recent phenomenon". It has been gathering pace gradually,

the process of liberalization was started with the financial sector reform in mid eighties. It was surged up after the initiation of structural Adjustment Program and Enhanced Structural Adjustment Program with respective loan and assistance of the World Bank and International Monetary Fund. Financial sector reform was implemented on a phase wise basis. It was designed to address the institutional deficiencies and closed and controlled financial system. Various macroeconomic policies were modified and adjusted during the period to facilitate the liberalization process. The procedural relaxation on the entry of joint venture banks (with collaboration), determination of interest rate (first, in 1986 with certain limit and then in 1989 without any limit) and operation of various financial transactions are mainly attributable for the reform.

2.5.1 Review of Theses:

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

Bhandari (2008) *“The Impact of Interest Rate Structure on Investment Portfolio of Commercial Banks of Nepal”* has concluded followings:

- Rates of commercial banks have been fluctuating. Deposits and lending rates were increased immediately after liberalization of the interest rate on August 31, 1989 but however, started to decline which have helped in increasing the credit flow.
- Interest rate structure has direct influence on profitability of commercial banks. Decreasing lending rate helps to increase the profitability through increasing the credit.
- Deposits are more interest rate conscious and positively co-related.
- Loans and advances of commercial banks have been found to be continuously increasing with the decline in interest rates.

- Effective interest rate structure helps in proper utilization of resources as measured by loan to deposit ratio.
- Most of the banks are having similar interest rate structure which lessens the importance of liberalization of interest rate.

Bhandari's study was mainly concerned in seeking answers to the following:

- Relationship between interest rate and deposit.
- Significance of interest rate on lending.
- Impact of liberalization on banking performance, especially in terms of interest rates.

Dangol (2009) Study conducted by Dangol, N. on the "*Impact of Interest Rate on Financial Performance of Commercial Banks*" hold the following objectives:

- To examine the relationship of interest rate with amount deposits and amount lent.
- To examine the sensitivity of interest rate with inflation rate.

The study made by Dangol on the whole concluded:

- Most of the commercial banks contradict the general financial theories.
- The relation between amount of deposits and interest rate on deposit, in general concept, must be positive. But deposits are increasing despite the decrease 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.
- The relation between total amount of loan and the lending rate is negative and significant. However, the change in the total amount of loan flow is not proportionate with the change in the lending rate.
- Correlation between interest rate and inflation is not significant.
- Not only interest rate is responsible to shape the profitability of banks but also the operating efficiency also has major influence on it.

Bhatta: (2010), "*Interest Rate and its effect on Deposit and Lending*". In this study, the disseminator tried to portray the relation of interest rate with deposit and lending amount which was the major objective of this study. But Bhatta's finding on deposit was not as per theory. The conclusions drawn from Bhatta's work:

- 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.
- 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.
- Analysis shows that interest rates on lending are far higher than deposit rates of sample banks. The correlation coefficient between these two variables, (deposit rate and lending rate) of sample banks comes highly positive.
- The simple correlation coefficient between deposit rate and deposit amount of sample banks were highly negative. But out of them, correlation coefficient analysis of one sample bank is found to be negative. It means that in that case the theory doesn't match the analysis. So writer conclude that the result appears in that study was different than the theory.
- The correlation analysis between lending rate and lending amount of all sample banks under study comes highly negative. This relation between two variables (lending rate and lending amount) of sample banks matches with the theory which says with the increase in lending rate, lending amount decreases and vice-versa. Hence she concluded that lending rate is the most important determinant of loan and advances of all commercial banks. This makes clear that borrower's seem more interest conscious.

Finally the conclusion about the study, in the author's own words, is as follows:

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

Pokharel (2011), “*Determinants of Interest Rates in Nepalese Financial Markets*” also gave some ideas about the interest rates in Nepalese markets. Though, this thesis tried to identify the factors that shape the interest rates in Nepalese markets, it also tried to explore the relationship between the interest rate, deposits, credit rates and inflation. Among different objectives, some objectives that match to this study are:

- To show the relationship between the liquidity position and interest rate on deposit and lending.
- To identify the effect of inflation on interest rate charged and offered by various Nepalese financial institutions.
- To identify the different methods used by Nepalese financial institutions to calculate interest on lending.

During the study, Pokharel found similar results as discovered by Bhatta. In the study conducted by Pokharel it is found that the correlation coefficient between interest rate on deposit and amount of deposit collected of all sample organizations were highly negative. It means that, deposit amount of all sample banks are found to increase even if the interest rate of deposit, the attracting factors for deposit, is decreasing. This is against the theory.

According to theory, there must be positive relationship. Similarly in case of lending rate and lending amount, Pokharel found the result as suggested by the theory. It means, the correlation coefficient between amount loaned and interest rate on lending of 10 sample bank is found to be highly negative. In other words, negative coefficient of other organizations means that more amounts is demanded at lower interest which means that when demand increases, price (interest rate on lending) also increases.

Similarly considering about the relationship between interest rate on deposit and on lending for all sample banks, disseminator found it to be highly positive correlated. In his own words, it is “Variation in one rate also brings variation in another rate in same direction.” Therefore it is concluded both interest rate are determining factor of each other.

In same manner, the researcher explored that the relation between interest rate on deposit and inflation rate is little positive. Theoretically there should be positive correlation between these two variables. Due to little positive correlation, it is concluded that the interest rate in Nepalese Financial market is affected by inflation rate to some extent.

Similarly the same result is obtained when it is tried to explore the relationship between lending rate and inflation rate. It means, theoretically there should be a positive and perfect relationship between them. Practically, the researcher found it but the degree of positive correlation is somewhat less. So on this the researcher concluded that “Interest rate on lending in Nepalese Financial Market is affected by inflation only to some extent.” Finally, the relationship of interest rate on lending with risk-free rate is both positive and negative. It means that interest rate on lending in Nepalese Financial Markets is not affected by risk-free rate of interest.

Neupane (2012) Carried out a study entitled “*Interest Rate Structure and Its Influence on Deposit and Lending of Joint Venture Banks in Nepal*” The researcher has shown the influence of interest rate on deposit and lending in Nepalese Joint Venture Banks. The major objectives of the study were:

- To explore the relationship between interest rate and deposit.
- To examine the effect of interest rate on borrowing amount.
- To examine the influence of interest on performance of joint venture banks in Nepal.

Based on the objectives, the study made by Neupane concluded:

- The interest rate of all sample banks are found to be in decreasing trends
- Analysis of sample banks shows that interest rates on lending are far higher than deposit rates.
- Analysis of sample banks concludes that interest rate on deposit is to be found so low which does not attract the depositor.
- Lending interest rate of sample banks have decreased every year which provide better opportunities for the borrowers and investors.
- Sample Banks under study show weak on mobilization of collected deposit.

Poudyal (2011) Has conducted a study entitled “*Interest Rate and its Impact on Lending, Deposit and Inflation*” The thesis was carried out with a main objective to explore the relation of interest rate with deposit, lending and inflation. To support the main objectives the following sub objectives were formulated:

- To scrutinize the relationship of interest rate with deposit amount.
- To spot out the sensitivity of interest rate with investment.
- To identify other major qualitative factors determining interest rate charged and provided by Nepalese financial institution.

Based on the objectives, the following conclusions were drawn from the study conducted by Poudyal:

- The substitution effect doesn't hold true for all the samples taken.
- The interest rate on both deposit and lending of all sample banks are found to be in decreasing trends.
- Analysis of sample banks shows that there exists negative relation between lending amount and lending rate
- It was also concluded that interest rate on deposit and inflation rate is negative.
- The interest rate on lending and inflation rate has high degree of negative correlation coefficient.

2.6 Research Gap

This study includes the variable like deposit amount, interest rate on deposit, amount of loan, lending rate, perception of management over the financial performance of commercial banks (HBL and EBL). This study is original work on interest rate structure of Nepalese financial market and tries to provide with an idea how the financial institutions function. Various previous works that has been consulted during the preparation of this thesis are found to be copied or done without placing original and updated data. It is also found that various other factors affecting interest rate like maturity period, political instability, and impact of open border with India etc. are lacking in many thesis. This study has been conducted considering only commercial banks. This study also includes the very recent data and information about the sample banks chosen from various websites and possible available data different studies that has been so far. However sophisticated tools for calculation and various computer softwares have not been adopted. Some previous theses are found to have used latest computer soft wares. Despite of critical market situation the study shows how these companies are growing.

Though detail analyses of international trends have not been made, various theories developed by renowned international researcher have been considered and the findings and conclusion are drawn based on those theories.

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology is a systematic way to solve the research problem. In other words, research methodology describes the methods and process applied in the entire aspect of the study. Research methodology refers to the various sequential steps (along with a rationale of each step) to be adopted by a researcher in studying a problem with certain objectives in view (Kothari: 1994). Thus the overall approach to the research is presented in this chapter. This chapter consists of research design, sample size and selection process, data collection procedure and data processing techniques and tools.

3.1 Research Design

A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern or framework for the project that stipulates what information is to be collected, from which sources and by what procedures. A research design is the program that guides the investigator in the process of collecting, analyzing and interpreting observations (Nachmais and Nachmais, 1987:29). Thus a research design is a plan for the collection and analysis of data. The design also enables the researcher to anticipate potential problems of data gathering operation concepts, measurement, etc. (Black and Champion, 1976:77). For research there exist different types of research design like;

1. Historical Research

Some research can be done only with the help and assistance of historical data and as such historical method for the study of social research occupies a very significant place.

It is the critical investigation of events, development and experiences of the past, the careful weighing of the validity of sources of information on the past and the interpretation of the weighed evidence. Historians, philosophers, social psychiatrists, literary men and social scientists use the historical approach as an aid in visualizing society

as a dynamic organism, and its structures and functions as steadily growing and undergoing change and transformation (Young, 2000).

2. Descriptive research

Descriptive research design seeks to describe a field or a problem by taking secondary data into account. The approach is directed towards identifying the various characteristics of the research problems and to create observations conducive to further research.

3. Case study research

A comprehensive study of a social unit-be that unit a person, a group, a social institution, a district, or a community is called a case study (Young, 2000:26). As the case study helps in studying behavior in specific, precise detail, its is also called “the social microscope” (Burgees, 1949:25:26)

4. Field study research

This is the research design which involves direct study of field situations. Though this method has broken down the narrow walls of the traditional experimental laboratory in research on complex problem of human relationships but it permit the introduction of controls in the data collection.

5. Action research

Action research is also known as applied research or behavioral research which is associated with particular project and problem. It aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework (Clark, 1972: 22-23). This type of research is conducted through direct action.

6. True experimental research

A true experimental research is one, which has two basic requirements. One is complete control over the manipulation of independent variable and another is complete control

over the assignment of subjects in equivalent group. In a true experiment random assignment of subjects to experimental and control treatments provide the equivalence of the experimental and control groups (Best and Kahn, 2002:148)

This study mainly concerned with historical research. Sometime descriptive and analytical approach has also been used. But generally, to show the relationship of interest rate with deposit amount, lending (credit) amount past historical data are used. The relevant and needed data has been collected from various publications of different commercial banks and Nepal Rastra Bank.

3.2 Population and Samples:

The term “population” or universe for research means the universe of research study in which the research is based (Wolf & Pant: 2000). A population element is the subject on which the measurement is being taken. A population is the total collection of elements about which we wish to make some interference. Since the study is about interest rate, all the lending and depository institution of Nepal are the member of population study. The population for the study comprises 31 commercial banks, 87 development banks, 79 finance companies, 20 micro credit development bank, 15 saving and credit co-operatives (limited banking), one employee provident fund and other 46 non-government financial organizations (NGOs) licensed by NRB (NRB website). Due to the time and resources factors, it is not possible to study all of them regarding the study topic. Therefore samplings are done selecting from population. Among the population only 2 Joint venture banks are chosen as sample. Only three banks has been taken for study for the greater accuracy of results, greater speed of data collection as well the banks taken as sample make a good representation ion of the financial performance of many banks in Nepal to great extent. Organization under study are as follows, whose general introduction are presented in chapter one.

- Himalayan Bank Limited
- Everest Bank Limited

3.3 Nature and Source of Data

For this study, mainly secondary data are used. These secondary data are collected mainly from published sources like annual report, prospectus, balance sheet, newspaper, journal, internet and other sources. Secondary data published on annual reports of concerning organizations, like interest rate as well as amount and their organizational profiles are collected through personal visit of respective organization as well as from various newspapers, magazines and their websites. Some secondary data like source and use of funds of respective bank, comparative study, and inflation rates are collected from Nepal Rastra Bank.

3.4 Data Processing and Presentation

The information or data obtained from the different sources are in raw form. Direct presentation is not possible from that information. So it is necessary to process data and converts them into required form. After then only, the data can be presented for study. The process is called data processing. For this study, only required data are taken from the secondary source (bank's publication, websites, magazines and newspaper) and are presented in this study. For presentation, different tables are used. Similarly, in most case graphical presentation is also made. So far as the computation is concerned, it has been done with the help of scientific calculator and computer program.

3.5 Data Analysis Tools

In order to get the concrete results from this research, data are analyzed by using different types of tools. As per topic requirements, emphasis is given on statistical tools rather than financial tools. So for this study following statistical tools are going to be used.

3.5.1 Statistical Tools

Arithmetic Mean:

It is the sum of all the observations divided by the number of observations. In such case all the items are equally important (Pant & Chaudhary: 1999). As arithmetic mean is most common and popular tools for data analysis, here in this study also, arithmetic mean is used. It is computed by using following formula:

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

Where \bar{X} = Mean

ΣX = Sum of all the Variable X

n = Variables involved

Coefficient of Correlation:

By this statistical tool, the degree of relationship between two variables is identified. In other words, this tool is used to describe the degree to which one variable is linearly related to other variables. Two or more variables are said to be correlated if change in the value of one variable appears to be linked with the change in the other variables. The correlation analysis refers the closeness of the relationship between the variables (Sharma & Chaudhary: 2003). Correlation may be positive or negative and ranges from -1 to +1. Simple correlation between interest rate and deposit amount, interest rate and credit or lending amount and interest rate (both deposit rate and lending rate) and inflation is computed in this thesis. For example, let's say that the correlation between interest rate and inflation is positive. It indicates that when inflation increases, interest rate also increases in same direction and vice versa. For our study following reference is used (Panta & Chaudhary: 2053).

- Correlation may be positive or negative and ranges from -1 to +1. When $r = +1$, there is positive perfect correlation; when $r = -1$, there is perfect negative correlation; when $r = 0$, there is no correlation and when $r < 0.5$ then there is low degree of correlation.

- When 'r' lies between 0.7 to 0.999 (or -0.7 to -0.999), there is high degree of positive (or negative) correlation.
- When 'r' lies between 0.5 to 0.699, there is a moderate degree of correlation.

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

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

Alternately,

$$r = \frac{\text{Cov}(X_1, X_2)}{\text{Var}X_1, \text{Var}X_2}$$

Where,

$$\text{Covariance}(X_1, X_2) = \frac{1}{n} \sum (X_1 - \bar{X}_1)(X_2 - \bar{X}_2)$$

n = Total number of observations.

X₁ and X₂ = two variables, correlation between them are calculated.

$$\text{Multiple Correlation Coefficient (R}_{123}) = \sqrt{\frac{r_{12}^2 + r_{13}^2 - 2r_{12}r_{13}r_{23}}{1 - r_{23}^2}}$$

Where,

r₁₂ = correlation coefficient between variables one and two.

r₂₃ = correlation coefficient between variables two and three.

r₁₃ = correlation coefficient between variables one and three.

Multiple correlations is used for the measure of degree of association between one variable and a group of other variables as the independent variable. It lies between 0 and 1. The close it is to '1', the better the linear relationship between the variables. The closer it is to '0', the worse is the linear relationship (Gupta: 2000).

3.5.2 Financial Tools

Financial tools are used to examine the strength and weakness of performance. In this study, financial tools like interest rate spread and ratios have been used. Ratio is the mathematically relationship between two accounting figures. Ratio analysis is used to

compose a firm's financial performance and status so that of other firm's or to it overtime. The qualitative judgment regarding financial performance of firm can be done with the help of ratio analysis. Therefore only those ratios have been covered 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 deposit on loan and advances for profit generating purpose. A ratio helps us showing the relationship between loans and advances which are granted and the total deposit collected by bank. A high ratio indicates better mobilization of collected deposit and vice versa. It should be noted that too high ratio may not be better from liquidity point of view. This ratio is calculated by dividing loan and advances by total deposits. This can be stated as below:

$$\text{Loan and advance to total deposit ratio} = \text{Loan and advance} / \text{Total deposits}$$

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 lending than they provide interest rate on deposits. Interest rate spread is calculated as follows:

$$\text{Interest rate spread} = \text{Interest rate on lending} - \text{Interest rate on deposit}$$

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

CHAPTER-IV
PRESENTATION, ANALYSIS AND FINDINGS OF DATA

Introduction

The sequence of three sections has no clear demarcation line but the arrangement is as per the organization (presentation, analysis and interpretation). The data obtained are of primary and secondary nature. The analysis is done in a simple way, at first relationship of deposit and interest rate of both sample banks are analyzed then, the relationship between interest rate and credit (lending) amount is made. While analyzing, different statistical tools like correlation coefficient, coefficient of determination, t-statistics for significance are employed.

The filtered data are presented and detail analysis of some researches is included in this section. With set objectives, analysis and interpretation of data from Nepalese market are carried out. The necessary and relevant data information essential for the study is analyzed in this chapter. A set of bank is chosen to perform the study in order to analyze the interest rate and its effect on deposit amount, lending amount and financial performance. For the easy understanding, and to make the effective and precise, presentation, analysis and interpretation are categories into which the focus has been divided.

Presentation and Analysis of Secondary Data

Secondary type of data is used to analyze about deposit amount, lending amount and interest rate.

4.1 Analysis of Deposit and Interest Rate

In this section, detail study is made about deposit amount and interest rate of sample banks. For this study only saving and fixed deposits are considered because current deposit doesn't earn any interest.

4.1.1 Himalayan Bank Limited (HBL)

The general interest rate structure for HBL for saving deposit and fixed deposits during past six fiscal years is as follows:

Table: 4.1
Interest rate structure on deposit of HBL

(In Percentage)

Deposit	2007	2008	2009	2010	2011	2012
Savings	2.75	2.75	2.75	4	4.25	6.5
Fixed						
14 Days	2.5	2.5	1.75	2	2.5	3
1 Months	3.3	3.3	2	2.25	3.25	4
3 Months	3.75	3.75	2.5	2.5	3.75	4.75
6 Months	4	4	3	3.25	4.5	10
1 Years	5.25	5.25	3.75	5.5	6.5	11
Above 2Yrs	5.75	5.75	3.75	5.5	8.75	11.5
Fixed Deposit Mean	4.10	4.10	2.79	3.5	4.875	7.375

Source: Banking and Financial Statistics, No: 45-53 and Interest rate structure of CBs Mid July 09 and 010 NRB

From table 4.1 it is clear that the interest rate on fixed deposit of HBL is in increasing, decreasing and increasing trend. The interest rate on saving deposit is in increasing trend. The average interest rate on fixed deposit is 4.10%, 4.10%, 2.79%, 3.5%, 4.875% and 7.375% in FY 2007, 2008, 2009, 2010, 2011 and 2012 respectively. It shows that the average interest rate is in increasing trend during FY 2007 to 2008 and decreased at 2009 then again increased at 2010 then slightly increased at 2011 and increased highly in 2012. The interest on fixed deposit is decreased in the year 2009 and 2010 due to excess amount of deposit available in the bank. In the year 2012 the interest rate on the all kinds

and all time period deposits are in increased. This shows that the scarcity of the fund in the banking system. This phenomenon can be portrayed in the graph as figure no 4.10.

The figure below shows the fixed deposit interest rate for different time period. The interest rate on the year 2009 is decreased and then it starts to increased. In this study period the interest rate is in fluctuating trend. Interest rate is depending upon the demand and the supply of the liquidity available in the market.

Figure: 4.1
Interest Rate of HBL on Fixed Deposit

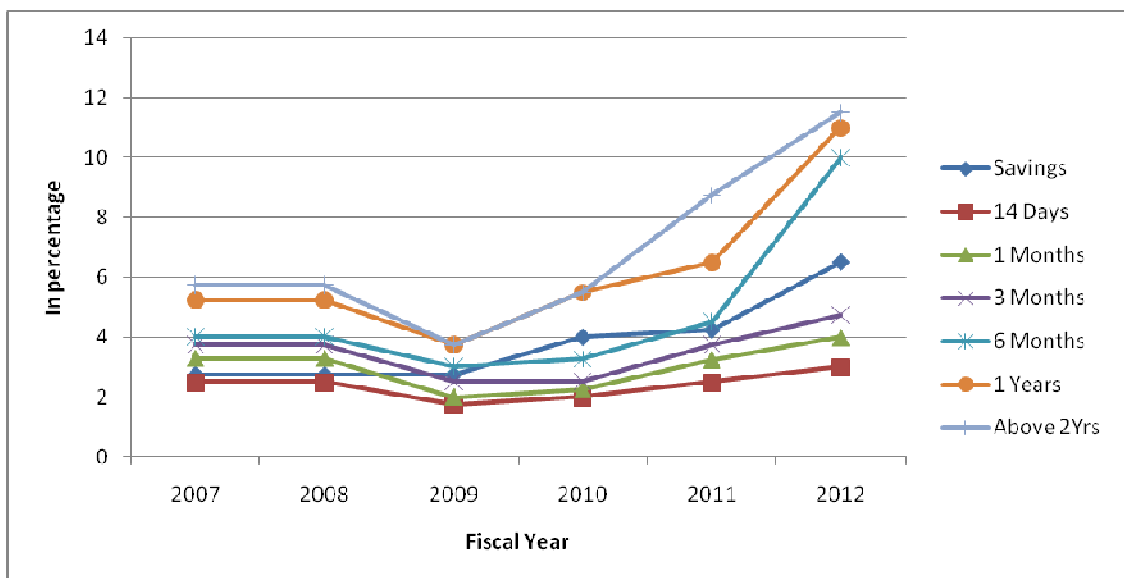


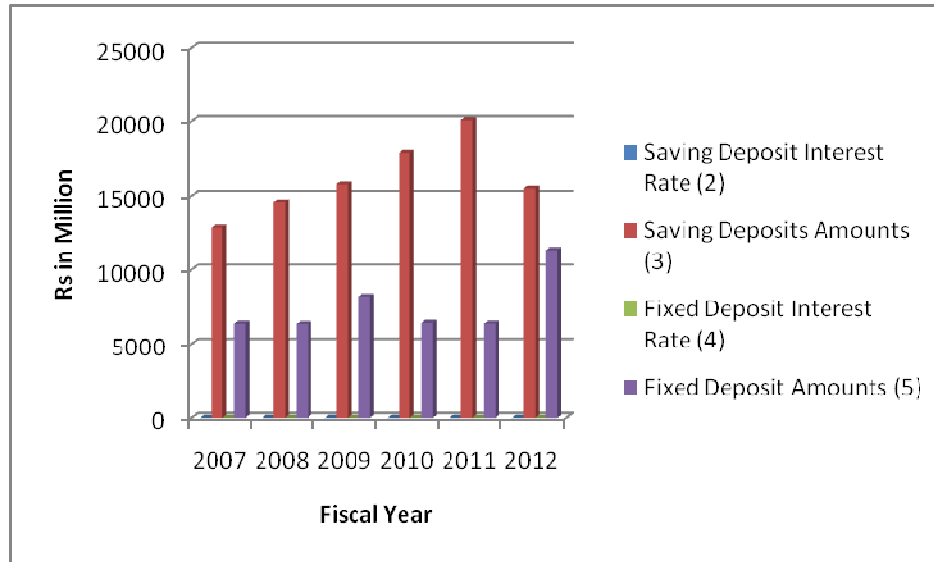
Table: 4.2
Relationship between Interest Rate and Deposit amount of HBL
(Rs in Million)

Year (1)	Saving Deposit Interest Rate (2)	Saving Deposits Amounts (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amounts (5)		
2007	2.75	12852.4	4.10	6364.3		
2008	2.75	14582.8	4.1	6350.2		
2009	2.75	15784.7	2.79	8201.1		
2010	4	17935	3.5	6423.9		
2011	4.25	20081	4.88	6377.1		
2012	6	15494.6	7.38	11328.6		
Correlation	$r_{23} = 0.3740$		$r_{45} = 0.7124$			
Coefficient of determination	$r_{23}^2 = 0.1398$		$r_{45}^2 = 0.5076$			
t-statistic	t-cal = 0.8065	t-tab = 2.571	Insignificant	t-cal = 2.8936	t-tab = 2.571	Significant

Source: Appendix-I

The table 4.2 shows the amount of saving deposit and its interest rate as well as amount of fixed deposit and its interest rate for six fiscal year. The table indicates that, in one hand deposit rates are increasing and deposit amount is increasing in each fiscal year. This suggests that interest rate and deposit amount may have positive relationship, i.e. when one variable is found to be increased; other variable is found to be increased. This situation can be revealed in graph as figure no 4.2 in following ways:

Figure: 4.2
Deposit Amount of HBL



The figure 4.2 shows saving deposit amount is continuously rising each year but fixed deposit 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 deposit.

To quantify the exact relationship between interest rate and deposit amount, it is necessary to calculate the co-relation coefficient. The correlation coefficient of saving deposit amount and its interest rate is $r_{23} = 0.3740$. It means that these two variables have moderate positive relationship. Though the two variables have direct relationship but correlation coefficient tells that increase in one variable result the increase in other variables. The correlation coefficient for fixed deposit rate and amount is $r_{45} = 0.7124$, which is very high positive correlation. Therefore for both saving and fixed deposit, the case is not against the substitution effect.

The value of t-statistics for saving deposit and saving interest is found to be $t\text{-cal} = 0.8065$. 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 than t-tabulated. So alternative hypothesis is not accepted, which means that there is insignificant relation

between saving deposit and interest rate. Similarly for fixed deposit, the calculated value for t is $t\text{-cal} = 2.8936$. This value is greater than $t\text{-tabulated}$. So in this case the magnitude of correlation coefficient is significant. It means H1 hypothesis is accepted. Thus in the case of saving deposit it is clear that there is substitution effect & fixed deposit, there is substitution effect in the context of HBL.

4.1.3 Everest Bank Limited (EBL)

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

Table: 4.3
Interest rate structure on deposit of EBL

(In Percentage)

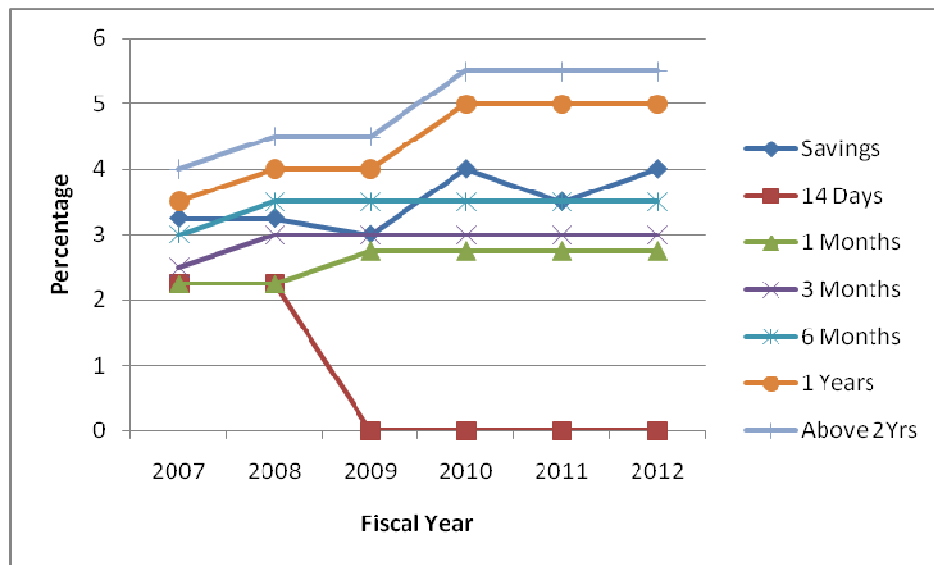
Deposit	2007	2008	2009	2010	2011	2012
Savings	3.25	3.25	3	4	3.5	4
Fixed						
14 Days	2.25	2.25	NA	NA	NA	NA
1 Months	2.25	2.25	2.75	2.75	2.75	2.75
3 Months	2.5	3	3	3	3	3
6 Months	3	3.5	3.5	3.5	3.5	3.5
1 Years	3.5	4	4	5	5	5
Above 2Yrs	4	4.5	4.5	5.5	5.5	5.5
Fixed Deposit Mean	2.92	3.25	3.55	3.95	3.95	3.95

Source: Appendix-II

The table 4.3 reveals the interest rate of EBL on saving deposit and fixed deposits. The interest rate on deposit is fluctuated, means both on increasing and decreasing trend. But the tendency towards decrement is similar to HBL because interest rates remain increase, constant and decrease during the various FYs. In the six years fiscal periods, the interest rate is fluctuating and increasing trend. This can be shown clearly if average of all interest rate is taken. The average interest rate for fixed deposit is 2.92%, 3.25% 3.55%,

3.95%, 3.95% and 3.95% for the year 2007, 2008, 2009, 2010, 2011 and 2012 respectively. As compared to other two banks the interest rate of EBL is not more fluctuating. The similar interest rate for the last three years is similar. That mean the bank had sufficient liquidity at this period. This tendency can be exhibited in the pictorial form as in figure no 4.3 as follows.

Figure: 4.3
Interest Rate of EBL on fixed Deposits



The figure 4.3 shows that the interest rate on 3 months and 6 months fixed deposit has increased in the year 2008 and remains constant then after. The 14 days interest rate is given zero after the year 2008.

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

Table: 4.4

Relationship between Interest Rate and Deposit amount of EBL

(In Millions)

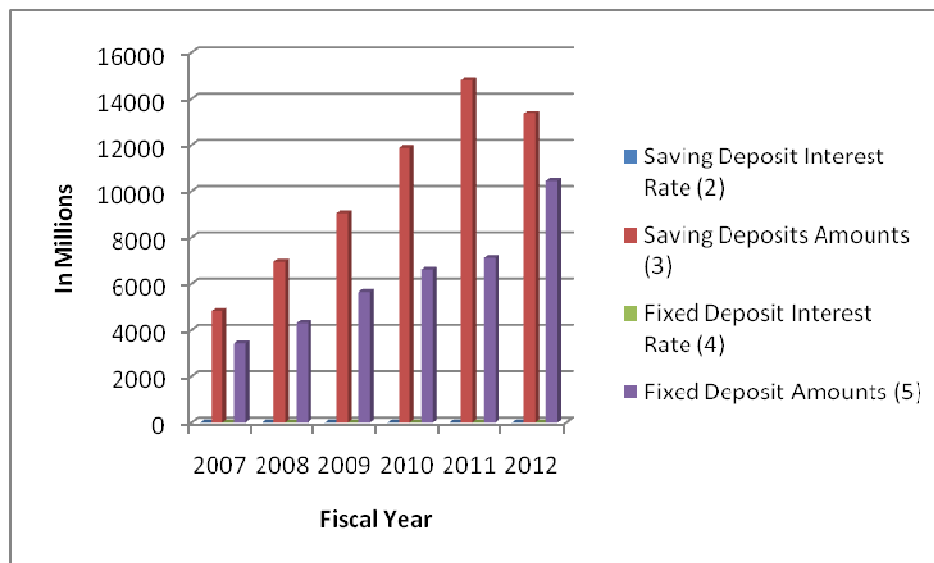
Year (1)	Saving Deposit Interest Rate (2)	Saving Deposits Amounts (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amounts (5)		
2007	3.25	4806.9	2.92	3444.5		
2008	3.25	6929.2	3.25	4298.2		
2009	3	9018	3.55	5658.7		
2010	4	11883.9	3.95	6598		
2011	3.5	14782.3	3.95	7094.7		
2012	4	13360	3.95	10440.3		
R	$r_{23} = 0.6394$		$r_{45} = 0.8359$			
R ₂	$r_{23}^2 = 0.4089$		$r_{45}^2 = 0.6986$			
t-	t-cal = 1.6633	t-tab = 2.571	Insignificant	t-cal = 3.0452	t-tab = 2.571	Significant

Source: Appendix-III

The table 4.4 also shows both deposit amount and interest rate are in increasing trend. It means interest rate and deposit amount have positive relationship. But to find exact quantity of positive relationship it is necessary to compute the correlation coefficient. Prior to this it is helpful if the data are presented on graph no 4.4.

Figure: 4.4

Deposit Amount of EBL



The graph shows that EBL collected more funds on fixed deposit than saving deposits in last year of the study period. Similarly the relationship of saving interest rate and deposit interest rate.

The excel sheet is used to compute the correlation coefficient, then the value for correlation between saving deposit and interest rate is $r_{23} = 0.6394$. This is moderate degree of positive correlation. It means that during the last six fiscal years, there was sharp increase in saving deposit amount. The coefficient of determination $r_{23}^2 = 0.4089$. Similarly the calculated value for t is 1.6633 for saving account. The value of tabulated t at 5 d.f. and 5% level of significance is only 2.571. So for saving account $t\text{-cal} < t\text{-tab}$, and hence H_0 is accepted. It means that there is no significant relationship between two variables (deposit amount and interest rate).

In same manner for fixed deposit, the value of correlation coefficient is $r_{45} = 0.8359$, which indicates that the two variables have very high positive relationship. In other words, when increment occurs on one variable occur then there occur increment on other variables. The coefficient of determination $r_{45}^2 = 0.6986$. To identify the significance or insignificance of this correlation, it is necessary to calculate the value of t -statistics. The calculated value of t is 3.0452. Similarly the tabulated value for t is 2.571, which is less than calculated t. As a result null hypothesis is rejected and alternate hypothesis is accepted. It means that the correlation coefficient is highly significant. Thus from the both study it reveals that substitution effect is not applicable for EBL.

4.2 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 measured. Generally, when there is higher interest rate (esp. lending or credit rate) in the economy, people normally borrow lesser amount than the period when lending interest rate is low. According to theory, when there is low lending rate, then there should be higher amount of borrowing. Higher amount of borrowing indicates higher investment in the country or higher transaction in trade. This

is necessary for the growth of the economy. So this study tries to explore the relationship between lending rate and lending amount in Nepalese context.

4.2.1 Himalayan Bank Limited (HBL)

HBL 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 follow

Table: 4.5
Lending Rate HBL on Different Sectors during six fiscal years

(In Million)

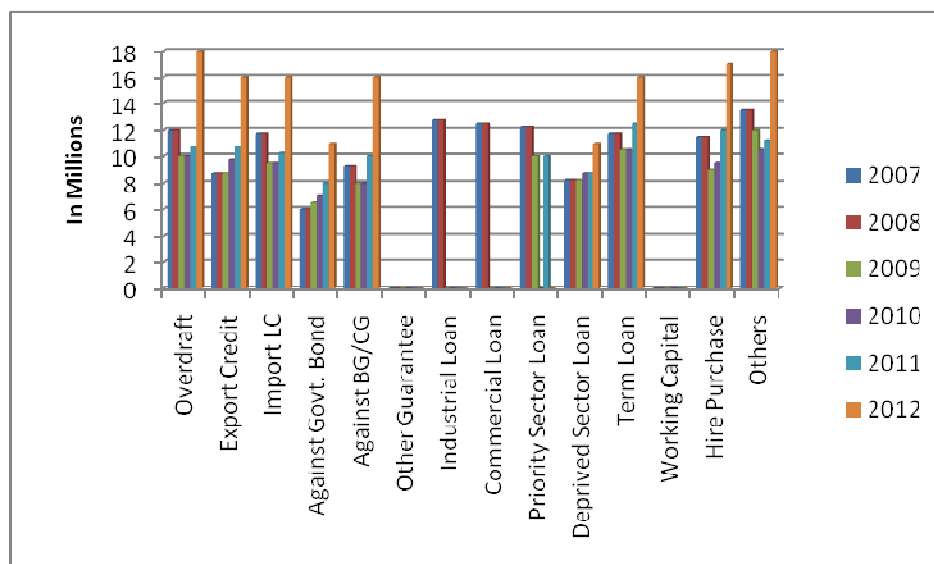
Sector	2007	2008	2009	2010	2011	2012
Overdraft	12	12	10	10	10.75	18
Export Credit	8.75	8.75	8.75	9.75	10.75	16
Import LC	11.75	11.75	9.5	9.5	10.25	16
Against Govt. Bond	6	6	6.5	7	8	11
Against BG/CG	9.25	9.25	8	8	10	16
Other Guarantee	NA	NA	NA	NA	NA	NA
Industrial Loan	12.75	12.75	NA	NA	NA	NA
Commercial Loan	12.5	12.5	NA	NA	NA	NA
Priority Sector Loan	12.25	12.25	10	NA	10	NA
Deprived Sector Loan	8.25	8.25	8.25	8.75	8.75	11
Term Loan	11.75	11.75	10.5	10.5	12.5	16
Working Capital	NA	NA	NA	NA	NA	NA
Hire Purchase	11.5	11.5	9	9.5	12	17
Others	13.5	13.5	12	10.5	11.25	18
Average Int. Rate(1)	10.85	10.85	9.25	9.28	10.425	15.44
Lending Amount (2)	13245	15515.7	17672	19985.2	25282.1	29123.7
Correlation (r_{12})	0.6270					
Coefficient of determination (r_{12}^2)	0.3931					

Source: Banking and Financial Statistics, No: 45-53 and Interest rate structure of CBs Mid July 09 and 010 NRB

The table 4-5 shows the interest rate of HBL on lending on six fiscal years granted in different sectors. HBL lending rate was somewhat more than EBL. The maximum interest rate quoted by the HBL during six FYs was 18% on overdraft and “other” categories. The interest rate of HBL is also in fluctuating trend. But the increasing magnitude is high. The average interest rate was 10.85%, 10.85%, 9.25%, 9.28%, 10.43% and 15.44% in 2007, 2008, 2009, 2010, 2011 and 2012 respectively. Conversely, the lending amount of HBL is seen to be in increasing trend. With compare to 2007 lending, lending of 2012 is more than two times. So it can be said that lending of HBL has expanded rapidly within that six fiscal periods. These phenomenon shows that lending interest rate and lending amount have inverse relationship. The increment of interest leads decrease in lending which shows the inverse relationship.

To quantify this relationship, it is necessary to calculate correlation coefficient. But prior to this it is fruitful if the trend of lending interest rate and lending amount is shown in the figure as in figure no 4.5.

Figure: 4.5
Lending Amount of HBL



The figure 4.5 shows that interest rate of lending falls slowly up to FY 2009. But after FY 2009 it starts to increased and more percent increment in shown in the year 2012.

Correlation Coefficient, Coefficient of Determination of HBL

The correlation coefficient of HBL between lending amount and lending rate is 0.6270. It is high degree positive correlation. It indicates that increment in one variable result the increment in other variables. In this case increase and fluctuate in lending interest rate increases the lending amount. This is similar with the slaying of theory. Similarly the coefficient of determination between two variable (r_{12}^2) = 0.3931. It means that the relationship between dependent variable and independent variable is defined up to the extent of 39.31%.

In conclusion the same relationship between lending rate and lending amount is not exactly applicable for HBL. So it is clear that the increase in lending amount is not significantly due to fluctuate in lending interest rate.

4.2.2 Everest Bank Limited (EBL)

At last, another bank for analysis is Everest Bank Limited. This bank also grants the credit to its customers in different sectors. But according the NRB bulletin “Banking and Financial Statistics” the bank provided the loan to its customers on following sectors.

Table: 4.6
Lending Rate EBL on Different Sectors during Six Fiscal Years

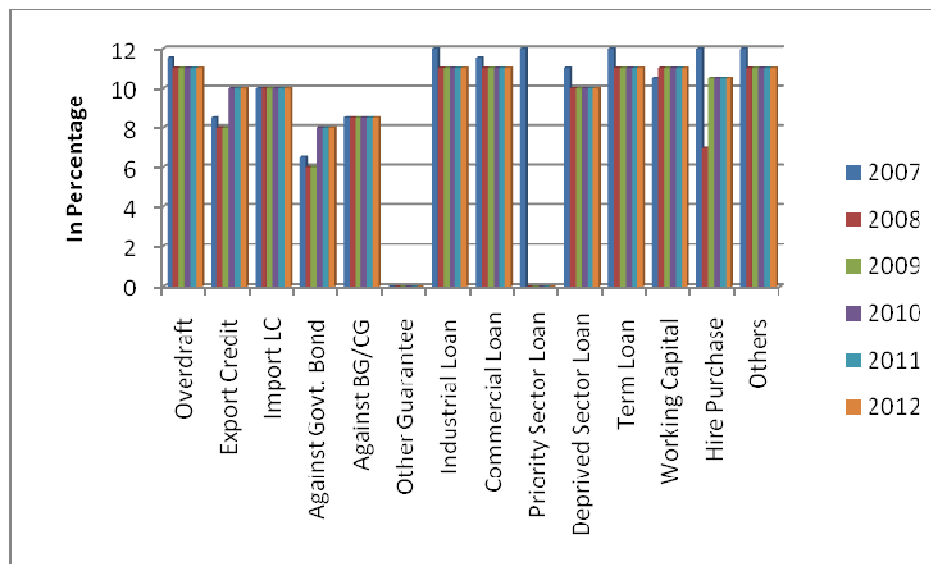
(In Percentage)

Sector	2007	2008	2009	2010	2011	2012
Overdraft	11.5	11	11	11	11	11
Export Credit	8.5	8	8	10	10	10
Import LC	10	10	10	10	10	10
Against Govt. Bond	6.5	6	6	8	8	8
Against BG/CG	8.5	8.5	8.5	8.5	8.5	8.5
Other Guarantee	NA	NA	NA	NA	NA	NA
Industrial Loan	12	11	11	11	11	11
Commercial Loan	11.5	11	11	11	11	11
Priority Sector Loan	12	NA	NA	NA	NA	NA
Deprived Sector Loan	11	10	10	10	10	10
Term Loan	12	11	11	11	11	11
Working Capital	10.5	11	11	11	11	11
Hire Purchase	12	7	10.5	10.5	10.5	10.5
Others	12	11	11	11	11	11
Average Int. Rate (1)	10.61	9.625	9.92	10.25	10.25	10.25
Lending Amount (2)	7914.4	10124.2	14059.2	18814.3	24366.2	28156.4
Correlation (r_{12})	0.1583					
Coefficient of determination (r_{12}^2)	0.0251					

Source: Banking and Financial Statistics, No: 45-53 and Interest rate structure of CBs Mid July 09 and 010 NRB

The table 4.6 shows the lending interest rate structure of EBL on six FYs on different sectors. From table it is clear that the interest rates of EBL are in falling stage for two year 2008 and 2009 and then increased to 10.25% in 2010 and remains constant. During the first phase of FY the interest rate fell by more than 1%. But in later year the falling speed is low. This phenomenon can be seen clearly with the study of average interest rate. The average interest rate for FY 2007, 2008, 2009, 2010 and 2011 are 10.61%, 9.63%, 9.92%, 10.25%, 10.25% and 10.25% respectively. In this bank also, lending interest of non productive loan falls more than lending interest of productive sector loan. In same manner, for lending amount, the lending amount of EBL increased each year. During the last FY the lending amount rises by more than 4 times. This is very significant figures among these aforementioned sample banks. This shows that the lending amount and interest have positive relationship. The figure for changing trend of interest rate and lending amount is given on figure no 4.6 and figure no 4.6.

Figure: 4.6
Lending Amount of EBL



Correlation Coefficient, Coefficient of Determination of EBL

The correlation coefficient of EBL between lending amount and lending rate is 0.1583. It is low degree positive correlation. It indicates that increment in one variable result the

little increment in other variables or vice versa. Similarly the coefficient of determination between two variable (r_{12}^2) = 0.0251. It means that the relationship between dependent variable and independent variable is defined up to the extent of 2.51%. The remaining percentage is due to other factors. This mean the increment in lending is due to the other economic variables.

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

Interest rate spread is a different between interest rate on lending and interest rate on deposit. Generally banks charge more interest rate on lending than they provide interest on deposit. Similarly loan and advance to total deposit 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 advance for profit generating purpose.

4.3.1 Himalayan Bank Limited (HBL)

Position of interest spread and loan and advance ratios of HBL is given in table 4.7

Table: 4.7

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

(In Millions)

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 ÷ X ₂)
2007	3.9	24831.1	10.85	13245	6.95	0.5334
2008	3.9	26456.2	10.85	15515.7	6.95	0.5865
2009	2.79	29905.8	9.25	17672	6.46	0.5909
2010	3.57	31805.3	9.25	19985.2	5.68	0.6284
2011	4.78	34681	10.43	25282.1	5.65	0.7290
2012	7.25	37611.2	15.44	29123.7	8.19	0.7743

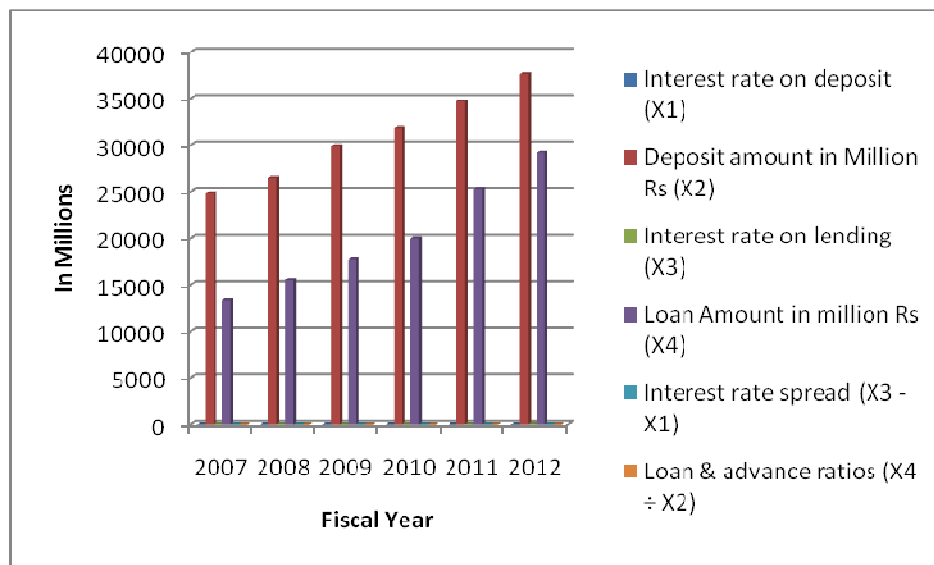
Source: Appendix-IV

The above table 4.7 shows interest rate on deposits and lending, deposit amount and lending amount for six FYs of HBL as well interest rate spread and total loan & advance ratios. The average spread rate during the period is 6.95%, 6.95%, 6.46%, 5.68%, 5.65% and 8.19% in FYs 2007, 2008, 2009, 2010, 2011 and 2012 respectively. The interest rate spread shows how greater rate charge by HBL for lending than deposit rate. The spread is shown in the year 2012 it is 8.19%.

From the calculation of loan and advance to total deposit ratios shows that HBL was able to utilized 53.34%, 58.65%, 59.1%, 62.84% 72.9% and 77.43% of total deposited fund on loan and advance for profit generating purpose in FYs 2007, 2008, 2009, 2010, 2011 and 2012 respectively. Generally greater loan and advance to total deposit ratio implies the better utilization of total deposit fund and vice versa. But from above table, HBL has able to better utilized total deposit fund. The table 4.8 can be clarified by the figure 4.8.

Figure: 4.7

Relationship between Deposit Rate and Lending Rate of HBL



4.3.2 Everest Bank Limited (EBL)

Position of interest spread and loan and advance ratios of EBL is given in table 4.8.

Table: 4.8

Position of Interest rate spread and loan and advance ratios of EBL

(In Millions)

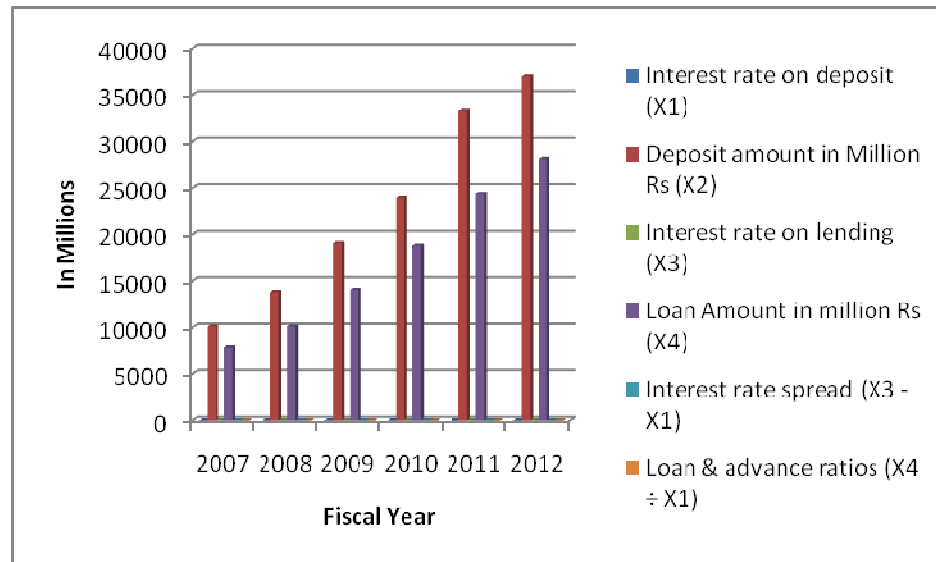
Year	Interest rate on deposit (X ₁)	Deposit amount in Million Rs (X ₂)	Interest rate on lending (X ₃)	Loan Amount in million Rs (X ₄)	Interest rate spread (X ₃ - X ₁)	Loan & advance ratios (X ₄ ÷ X ₁)
2007	2.96	10097.8	10.61	7914.4	7.65	0.7838
2008	3.25	13802.5	9.63	10124.2	6.38	0.7335
2009	3.46	19097.7	9.92	14059.2	6.46	0.7362
2010	3.96	23976.3	10.25	18814.3	6.29	0.7847
2011	3.88	33322.9	10.25	24366.2	6.37	0.7312
2012	3.96	36932.3	10.25	28156.4	6.29	0.7624

The above table 4.8 shows a clear picture of interest rate on deposits and lending, deposit amount and lending amount for seven FYs of EBL as well interest rate spread and total loan & advance ratios. The average spread rate during the period is 7.65%, 6.38%, 6.46%, 6.29%, 6.37% and 6.29% in FYs 2007, 2008, 2009, 2010, 2011 and 2012 respectively. The interest rate spread shows how greater rate charge by EBL for lending than deposit rate.

From the calculation of loan and advance to total deposit ratios shows that EBL was able to utilized 78.4%, 73.4%, 73.6% ,78.5% , 73.1% and 76.2% of total deposited fund on loan and advance for profit generating purpose in FYs, 2007, 2008, 2009, 2010, 2011 and 2012 respectively. The lending deposit ratio is in fluctuating trend. This ratio shows the utilization of deposit. From above table, EBL has able to better utilized total deposit fund in all FYs. The table 4-8 can be clarified by the figure 4.8.

Figure: 4.8

Relationship between Deposit Rate and Lending Rate of EBL



4.4 Major Findings

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

This study is conducted to identify the practical applicability of some of the theories in the context of Nepal that are taught on the University and colleges. With this motive, this study is mainly focused on three objectives. First one is to determine the actual situation of Nepalese financial markets. Similarly, next objective is to determine the relationship between lending rate and corresponding lending amount. And lastly, the next objective is to explore the managerial perspective in regards to performance of commercial banks.

- The interest rates on deposit and lending of both sample banks are found to be in fluctuating and increasing trend. But contrary to this, deposit amount and lending amount is increasing every year. The saving deposit amount and saving interest rate have positive relationship ranging from 0.374 to 0.9588. It means that if one variable increases, other variable increases. This may be due to the fact that, in last six FYs, people

accumulated most of their funds on saving accounts though they don't get appropriate interest on it. It may be just 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 more on saving account. Similarly the excess supply of saving deposit reduces the interest rate of saving account.

- Analysis of fixed deposit amount and fixed interest rate shows positive relationship. According to correlation coefficient, fixed rate decrease/increase when interest rate on fixed deposit decrease/increase. The correlation coefficient of all banks for fixed deposit amount and fixed deposit interest rate is positive, the t-statistics clarify that their relationship is strong.
- One of the variables that affect the demand of fund (lending activity) is lending interest rate. Theoretically, there is positive relationship between lending interest rate and lending amount. In this study for the two sample banks, it is found that all sample banks have positive correlation between these two variables. By using correlation tools, it can be inferred that all sample banks same relationship as suggest by theory. During the study period, it is found that, there exist the high spread between deposit interest rate and lending interest rate. In the beginning of the six FY this spreads was large but on later years, the spread declined to some extent. That may be due to competitive financial environment and less availability of investment opportunity. 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. The analysis of substitution effect for both fixed and saving deposit shows that substitution effect does work for EBL and saving deposit of HBL. People are oriented to deposit more amounts if the interest rates on deposit are rising every year. The increasing deposit amount clarifies this fact. And rest of them EBL both fixed and saving and fixed deposit of HBL have accordance with theory. The correlation between deposit and interest and positive highly. The t statistics shows the most of the relation is significant.

- According to theory, lending interest rate and lending amount should have same relationship. From this study, it is found that all sample banks except HBL have strong relationship as required by theory. The increment in demand of loan able fund for HBL and EBL do not affect by the increment in interest rate.
- The interest rate spread is more than 5% for all study period of EBL and HBL. The more spread is found of the EBL. The banks use its deposit as the form of lending more than the 67%. It shows banks lend high amount of loan which is most risky area of investment. Various new schemes are considered important tool to attract customers. Present rules and regulations are not sufficient for the growth of banks in competitive environment.
- Highly competent man powers are being employed in banks. Trainings and development program are considered must for the development of employees and managers.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

A developing country like ours has many unused resources which could be of huge potential for the economic growth of the country. Lack of financing, technical disabilities is some reasons due to which the country is lagging behind. The government of Nepal with an aim of mobilizing the limited capital adopted the liberalization policy. The main finding of the research is summarized in this chapter to provide an overview of the whole study. The several chapters discussed above are briefed and the main results are summed up together with recommendations for further improvement based on the current research study.

5.1 Summary

The result of which till now 31 commercial banks, 81 development banks, 79 finance companies, 15 co-operatives (Limited Banking) and 46 financial (NGOs) licensed by NRB are established within the financial system of Nepal. It is the financial system that could lift the living standard of the people by developing the economy. Financial intermediaries mobilize the fund by collecting the scattered resources from the savers (household, business or government) and provide the collected funds to the users or investors (i.e. lending collected amount from depositors to borrower). The intermediaries of financial systems sustain by lending the fund on higher interest rate and paying the deposit holder a little interest. This indicates; through a large interest spread on deposit and lending these organizations survive. The profit position of the organization depends on the decision made to charge and provide interest on lending and deposit. So the decision making job is very crucial and has to taken with great care. One very effective way of luring the depositors by offering higher interest and in the same way, high credit distract the investors which force the country to shrink down.

Interest rate is one of the major factors that affect deposit and lending amount, though there are various factors in the economy that affects the deposit amount and lending

amount. With the major objective of showing relationship between deposit rate and deposit amount i.e. substitution effect, lending rate and lending amount, this study is undertaken.

NRB loosen the rigidity to fix the interest rate that financial intermediaries charge and offer, after the liberal policy by the government. But being a responsible organization, NRB issued directives regarding overall performance of the financial institutions from time to time. This flexibility of NRB gave freedom to banks and other financial institutions to quote the interest rate on lending and deposit in past few years. As a result of this competition rises between the financial institutions which play important role in country's economy. This study has been carried out thus to identify whether some of the theories of finance and economics are applicable or not in the Nepalese financial markets. These major theories are like substitution effect, fisher effect and inverse relationship between interest rate and lending amount. The first chapter provides brief introduction about Nepalese economy, interest rate, sample organizations, statement of problem, significance of the study, research hypothesis, and so on.

The second chapter presents the theoretical review as well as review of previous researches, different views about interest, function of interest, theories of interest, factors affecting interest rate. The Classical Theory, Liquidity Preference Theory, Loanable Fund Theory and Rational Expectancies Theory - are reviewed as part of interest theories along with the factor affecting interest rate like default risk, marketability risk, exchange rate risk .

The third chapter is research oriented for the analytical purpose. Three banks are chosen and primary and secondary data are used for the analysis. The chapter provides an explanation of various research methods as well as statistical and financial tools used in study. The collection of data both in tabular and graphical from analyzed using different statistical tools are organized in chapter four. Data are analyzed and presented in various graphical forms. The major findings of the study are also explained in chapter four

5.2 Conclusion

The deposit amount and lending amount is increasing every year. By using correlation tools, it can be inferred that all sample banks same relationship as suggest by theory. During the study period, it is found that, there exist the high spread between deposit interest rate and lending interest rate. In the beginning of the six FY this spreads was large but on later years, the spread declined to some extent. That may be due to competitive financial environment and less availability of investment opportunity. It is also concluded 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. For all analysis the amount of the both deposits and lending amount is increased. The rate of interest is in increasing trend except in the year 2010 and 2011. The lending amount is also increasing though the lending rate is rising. This mean the demand of the fund is increasing every year. The significant increment in the deposit rate may cause from the increase in the competition in the banking industry. The study conducted with objectives to identify the relationship of interest rate with deposit and lending is based on the application of secondary data. The analysis shows that the interest rates on both deposit and lending of all sample banks are found to be in fluctuating and increasing trend.

With an objective to explore perception of management in the financial performance of commercial banks, primary survey was conducted. The survey shows that commercials banks are making their great effort in improving their performance level. Competition has increased and that too have forced banks to change their policy in accordance with their competitors to attract more customers. Various attractive schemes are being introduced in order to attract more customers as well competent man powers are given more priority in job place. During a study it was found that managers are quite motivated to increase the profitability level of their institutions.

5.3 Recommendations

To fulfill the objectives of this study, related data and ideas are collected from different sources. These data are presented; analyzed and interpreted then conclusions are made. Based on the analysis, interpretation & conclusions, certain recommendation can be made here so that the concerned authorities, future researchers, academicians, bankers can get some insights on the present conditions on above topics. It is considered that this research will fruitful for them to improve the present condition as well as for further research. The major recommendations after this study are:

- Interest rate on deposit is too low in Nepal. Joint Venture Banks are suggested to increase the interest rate on deposit as far as possible so that the depositors are attracted which helps to generate more capital for the development of the economy. Though this situation reduces their profit opportunities, but it will enhance the economic condition of the country in the long run.
- 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.
- Liquidity crises occurred due to low interest rate on deposit as well as high interest rate on lending. As the central bank of the country, NRB has power to specify the range or spread between lending rate and deposit rate. So NRB takes increasing interest rate on deposit policy. So NRB is suggested to strictly apply this policy to financial institutions and regularly monitoring so that the problem of higher gap between two interest rates in the country will be solved.
- As the key to success for any organization and for good financial system in the country capital and investment is essential, this is possible only by proper decision making of interest. So all the joint venture banks are suffused to set proper and practical interest rate policy.

- While reducing the lending rate, it is suggested to reduce more on productive sectors than nonproductive sectors. If not possible then bankers can reduce the rate of all sectors proportionately.
- Manuals of credit policy assets and liability management of international standard had needed to put in operation while the loan realization and restructuring after review of banks credit portfolio is currently underway. To introduce lending management, various departments and units had needed to set up. Such efforts are underway for loan restructuring and realizing outstanding loans from big clients through continued follow-up. Additional measures also needed to initiate for realize loans. New credit policy guide, guideline for credit decision process and problem loan guidelines should be formed.
- As NRB's publications are the major sources of collecting the secondary data and information regarding this topic from the experience, it is suggested that NRB should pay special attention to publish detail information on timely manner. The untimely publication of the bulletins handicaps the research workers and students
- Increase in investment only secured and government enterprises it may brings less return and possibility of ignorance to small private and cottage industries. To foster economic growth small enterprise should not be neglected. All banks efforts need to improve the credit flow through introduction of new consumer loans to lift the credit extensions.
- Sample institutions are also suggested to include their interest rate structure in their annual report as well as kindly requested for the co-operation and sincere support to the research students.
- Banks are suggested to introduce various schemes through a detail analysis of facilities being provided by foreign banks.
- Banks are found to be accumulated more in urban areas. It would be more beneficial if they start providing their service to the areas having less excess to banking facilities.

5.4 Future Scope

The observation made during this study could provide a foundation for further researches in the future. Further on one could work in the following aspects so that the researcher would provide new insight on the subject matter:

- Only 2 banks are taken as sample in this study. Sample number can be increased for greater accuracy.
- Period of study can be more than 6 years.
- More sophisticated tools and computer software programs can be used for calculation and analysis of data.
- Long survey would be more effective to short one.
- Case studies can be done so as to make the study more reliable.

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www.himalayanbank.com

www.nrb.org.np

Appendix- I

Calculation of Average interest rate on Deposit of EBL

Deposit	2007/08	2008/09	2009/010	2010/011	2011/12
Saving	3.25	3.25	3	3	3
Fixed					
1 month	2.25	2.25	2.75	-	-
3 month	2.5	3	3	3	3
6 month	3	3.5	3.5	3.5	3.5
1 year	3.5	4	4	5	5
2 year & Above	4	4.5	4.5	5.5	5.5
Whole Mean	3.08	3.42	3.46	3.33	3.33
Saving Deposit Mean	3.25	3.25	3	3	3
Fixed Deposit Mean	3.05	3.45	3.55	3.40	3.40
Standard Deviation	0.15%				

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

$$= \frac{\sum(3.08+3.42+3.46+3.33+3.33)}{5}$$

$$= 3.324$$

$$\text{Whole Mean} = \frac{\sum(3.25+2.25+2.5+3+3.5+4)}{6} = 3.08$$

$$= \frac{\Sigma(3.25+2.25+3+3.5+4+4.5)}{6} = 3.42$$

$$= \frac{\Sigma(3+2.75+3+3.5+4+4.5)}{6} = 3.46$$

$$= \frac{\Sigma(3+0+3+3.5+5+5.5)}{6} = 3.33$$

$$= \frac{\Sigma(3+0+3+3.5+5+5.5)}{6} = 3.33$$

$$\text{Fixed deposit mean} = \frac{\Sigma(2.25+2.5+3+3.5+4)}{5} = 3.05$$

$$= \frac{\Sigma(2.25+3+3.5+4+4.5)}{5} = 3.45$$

$$= \frac{\Sigma(2.75+3+3.5+4+4.5)}{5} = 3.55$$

$$= \frac{\Sigma(0+3+3.5+5+5.5)}{5} = 3.40$$

$$= \frac{\Sigma(0+3+3.5+5+5.5)}{5} = 3.40$$

And so on.....

Appendix - II

Calculation for standard deviation

Year	Average Interest(x)	$(x - \bar{x})$	$(x - \bar{x})^2$
2007	3.08	-0.24	0.06
2008	3.42	0.10	0.01
2009	3.46	0.14	0.02
2011	3.33	0.01	0.00
2012	3.33	0.01	0.00
Total	$\sum X = 16.62$		$\sum(X - \bar{X})^2 = 0.09$

$$\text{Standard deviation} = \sqrt{\frac{\sum(x - \bar{x})^2}{n-1}}$$

$$= \sqrt{\frac{0.09}{4}}$$

$$= 0.15\%$$

Appendix-III

Correlation Coefficient

Relationship between Interest Rate and Deposit amount of HBL

(Rs in Million)

Year (1)	Saving Deposit Interest Rate (2)	Saving Deposits Amounts (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amounts (5)		
2007	2.75	12852.4	4.10	6364.3		
2008	2.75	14582.8	4.1	6350.2		
2009	2.75	15784.7	2.79	8201.1		
2010	4	17935	3.5	6423.9		
2011	4.25	20081	4.88	6377.1		
2012	6	15494.6	7.38	11328.6		
Correlation	$r_{23} = 0.3740$		$r_{45} = 0.7124$			
Coefficient of determination	$r_{23}^2 = 0.1398$		$r_{45}^2 = 0.5076$			
t-statistic	t-cal = 0.8065	t-tab = 2.571	Insignificant	t-cal = 2.8936	t-tab = 2.571	Significant

Appendix - IV

Correlation coefficient

Relationship between interest rate and deposits of EBL

Year (1)	Saving Deposit Interest Rate (2)	Saving Deposits Amounts (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amounts (5)		
2007	3.25	4806.9	2.92	3444.5		
2008	3.25	6929.2	3.25	4298.2		
2009	3	9018	3.55	5658.7		
2010	4	11883.9	3.95	6598		
2011	3.5	14782.3	3.95	7094.7		
2012	4	13360	3.95	10440.3		
R	$r_{23} = 0.6394$		$r_{45} = 0.8359$			
R ₂	$r_{23}^2 = 0.4089$		$r_{45}^2 = 0.6986$			
t-	t-cal = 1.6633	t-tab = 2.571	Insignificant	t-cal = 3.0452	t-tab = 2.571	Significant

Working:

Calculation of saving correlation

(...in millions)

Year	Saving Rate (X ₁)	Saving Amount (X ₂)	X ₁ X ₂	X ₁ ²	X ₂ ²
2007	3.25	4806.9	15622.425	10.562	23106287.61
2008	3.25	6929.2	22519.9	10.562	48018663.08
2009	3	9018	27056.7	9	81340557.21
2010	4	11883.9	47535.6	16	22388079.21
2011	3.5	14782.3	51738.05	12.25	218516393.29
2012	4	1330	53440	16	178489600
	21	60780.3	217912.7	74.374	571859580

$$\begin{aligned}
 \text{Simple Correlation Coefficient (r)} &= \frac{n \sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n \sum x_1^2 - (\sum x_1)^2} \sqrt{n \sum x_2^2 - (\sum x_2)^2}} \\
 &= \frac{6 * 217912.7 - 21 * 60780.3}{\sqrt{6 * 74.374 - (21)^2} \sqrt{6 * 571859580 - (60780.3)^2}} \\
 &= -2.87
 \end{aligned}$$

$$\text{Correlation of Determination } (r^2) = (-2.87)^2$$

$$= 8.23$$

Calculation of fixed correlation:

(...in

millions)

Year	Fixed Rate (X ₁)	Fixed Amount (X ₂)	X ₁ X ₂	X ₁ ²	X ₂ ²
2007/08	2.92	3444.5	10057.94	8.52	11864580.25
2008/09	3.25	4298.2	14398.97	117.25	18474523.24
2009/010	3.55	5658.7	20088.385	117.25	32020885.69
2010/011	3.95	6598	26062.1	1560.25	43533604
2011/12	3.95	7094.7	28.24.065	150.25	50334768.09
	21.57	37534.4	70607.4	1953.52	156228361.3

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

$$= \frac{5 \cdot 70607.4 - 21.57 \cdot 37534.4}{\sqrt{5 \cdot 1953.52 - (21.57)^2} \sqrt{5 \cdot 156228361.3 - (37534.4)^2}}$$

$$= 1.889$$

$$\text{Correlation of Determination } (r^2) = (1.889)^2$$

$$= 3.56$$

Appendix – V

Relationship between net profit and loans and advances

Fiscal year	2007/08	2008/09	2009/010	2010/011	2011/12
Net Profit	237.29	296.41	451.22	638.73	831.77
Loans & advances	9,801.31	13,664.08	18,339.09	23,884.67	27,556.36
Net Profit Ratio	2.42%	2.17%	2.46%	2.67%	3.02%
Standard Deviation			0.31%		
Correlation (r)			0.86		
Coeff. Of Determinants (r ²)			0.74		
t-statistic			t-cal= 3.44	t-tab= 3.182	significant

Working:

Calculation of standard deviation

Fiscal year	Net Profit	Loans & advances	Net Profit Ratio (X)	(x - \bar{x})	(x - \bar{x}) ²
2007/08	237.29	9,801.31	2.42	(0.13)	0.02
2008/09	296.41	13,664.08	2.17	(0.38)	0.14
2009/010	451.22	18,339.09	2.46	(0.09)	0.01
2010/011	638.73	23,884.67	2.67	0.13	0.02
2011/12	831.77	27,556.36	3.02	0.47	0.22
Total			12.74		0.40

$$\begin{aligned}
 \text{Mean } (\bar{X}) &= \frac{\sum x}{n} \\
 &= \frac{2.42+2.17+2.46+2.67+3.02}{5} \\
 &= 12.74
 \end{aligned}$$

$$\text{Standard Deviation} = \sqrt{\frac{\sum (X - \bar{X})^2}{n - 1}}$$

$$= \sqrt{\frac{0.40}{4}}$$

$$= 0.32\%$$

Calculation of correlation

Year	Net profit ratio (X ₁)	Loan amount (X ₂)	X ₁ X ₂	X ₁ ²	X ₂ ²
2007/08	2.42	9,801.31	23,729.09	5.86	96,065,632.16
2008/09	2.17	13,664.08	29,640.93	4.71	186,707,127.72
2009/010	2.46	18,339.09	45,121.86	6.05	336,322,059.25
2010/011	2.67	23,884.67	63,873.28	7.15	570,477,633.74
2011/12	3.02	27,556.36	83,176.56	9.11	759,352,757.76
	12.74	93,245.50	245,541.72	32.88	1,948,925,210.64

$$\text{Simple correlation coefficient} = \frac{n \sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n \sum x_1^2 - (\sum x_1)^2} \sqrt{n \sum x_2^2 - (\sum x_2)^2}}$$

$$= \frac{5 \times 245541.72 - 12.74 \times 93245.50}{\sqrt{5 \times 32.88 - (12.74)^2} \sqrt{5 \times 1948925210.64 - (93245.50)^2}}$$

$$= 0.86$$

$$\text{Correlation of Determination } (r^2) = (0.86)^2$$

$$= 0.74$$

Position of Interest rate spread and loan and advance ratios of HBL

(In Millions)

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 ÷ X ₂)
2007	3.9	24831.1	10.85	13245	6.95	0.5334
2008	3.9	26456.2	10.85	15515.7	6.95	0.5865
2009	2.79	29905.8	9.25	17672	6.46	0.5909
2010	3.57	31805.3	9.25	19985.2	5.68	0.6284
2011	4.78	34681	10.43	25282.1	5.65	0.7290
2012	7.25	37611.2	15.44	29123.7	8.19	0.7743

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

$$= \frac{3.9 + 3.9 + 2.79 + 3.57 + 4.78 + 7.25}{6} =$$

$$= 4.36$$

$$\text{Standard Deviation} = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

$$= \sqrt{\frac{2.89}{5} \frac{\sum x}{n}}$$

$$= 0.076$$

Calculation of correlation

Year	Interest rate on deposit (X ₁)	Deposit amount in Million Rs (X ₂)	X ₁ X ₂	X ₁ ²	X ₂ ²
2007	3.9	24831.1	96841.29	15.21	6,165,83,527.21
2008	3.9	26456.2	103179.18	15.21	69,99,30,518.44
2009	2.79	29905.8	83437.18	7.78	89,43,56,873.64
2010	3.57	31805.3	113544.92	1274	1,01,15,77,108.09
2011	4.78	34681	165775.18	22.84	1,20,27,71,761.00
2012	7.25	37611.2	272681.20	52.56	1,41,46,02,365.44
	26.19	150956.41	835459	1387.6	4425219788

$$\text{Simple correlation coefficient} = \frac{n \sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n \sum x_1^2 - (\sum x_1)^2} \sqrt{n \sum x_2^2 - (\sum x_2)^2}}$$

$$= \frac{6 * 835459 - 26.19 * 150956.41}{\sqrt{6 * 1387.6 - (26.19)^2} \sqrt{6 * 150956.41 - 4425219788}}$$

$$\text{Correlation of Determination } (r^2) = (0.0327)^2$$

0.0010