INTEREST RATE STRUCTURE AND ITS IMPACT ON DEPOSIT AND LENDING OF JOINT VENTURE BANKS IN NEPAL

(With Reference to Himalayan Bank and NABIL Bank)

A THESIS

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CHAPTER-I

INTRODUCTION

1.1 Background of the Study

The level of development of any country is reflected by the development of financial sector of that country. Therefore, development of financial sector reflects the whole economy of the country. The financial sector is a vast field, which comprises of banks, co-operatives, insurance companies, stock exchange, foreign exchange market, mutual funds, etc. These institutions facilitate and improve the distribution of funds, money, and capital by providing services like payment mechanism, security trading, and distribution of funds, money and capital by providing services like payment mechanism, security trading, transmutations, risk diversification and portfolio management. Further, these institution mobilize saving and make investment in different type of enterprises of the national economy that consequently help in reducing poverty, raising employment opportunities and thereby developing the society and country as a whole. Financial institution occupies an important place in a nation's economy. The financial system is the total flow of resources in the economy as made possible for active participation of the network of financial intermediaries crating of government, regulating authorities and other constituents are involved in the transformation of the funds for enhancing the productive capacity of the economy.

The financial system determines the cost of credit and the amount of credit available to pay for the daily purchase of varieties of goods and services. The functioning of financial system has a powerful impact on the health of economy. It plays a vital role in the economy and forms the core of the money in an advance country.

The Nepalese financial sector is composed of banking and non banking sector. Banking sector comprises Nepal Rastra Bank (NRB) and commercial Banks. The non banking sector includes development banks, micro-credit development banks,

finance companies, co-operatives financial institution, non-government organizations (NGOs) performing limited banking activities. Other financial institution comprises of insurance companies, employee's provident fund, Citizen Investment fund, postal saving offices and Nepal stock exchange. These institutions collect deposits from general public providing certain rate of interest and advances loans to different needy persons or business houses charges higher interest rate.

Nepal Rastra Bank , the central bank of Nepal, was established in April 26,1956 under the Nepal Rastra Bank Act 1955 to discharge the central banking responsibilities including guiding the development of the emergent domestic financial sector. Before establishment of NRB, central banking activities except issue of note were performing by Nepal Bank Limited, the first organized bank of Nepal. The main objective to establish NRB was to facilitate the circulation of Nepalese currency all over the country, to establish the currency exchange rate, to promote the industries by mobilizing capital in the country. Since the establishment of NRB, there has been a significant growth in both the number and activities of the domestic financial institutions. By the mid of July 2011, NRB has licenced 219 financial institutions out of them 32 are commercial banks, 87 are development banks, 79 finance companies, 21 micro-credit development banks and

1.1.1 Origin of Bank

In simple language, bank can be defined as a place where the transaction of money takes place. In other words bank is such an institution that collects scattered deposits advances and loans. A bank collects deposit from different individuals and institutions. These collected deposits are mobilized by giving loans to different individuals, industries, commercial enterprises and so on. A bank does not only perform the activity of receiving deposit and advancing loan but at the same time it performs payment or remittance and other credit activities as well. Therefore, a bank plays a significant role in the economic development of country. Bank fills the gap between the searcher and provider of fund. It also provides sufficient back

support for the growth and expansion of trade and industry of the country, which eventually aids to the economic condition.

Banks are concerned mainly with functions of banking i.e. receiving, collecting, transferring, buying lending, investing, dealing, exchanging and servicing (safe deposit, custodianship, agency, trusteeship) money and claims to money both domestically and internationally. The principal activities of a bank are operating current accounts, receiving deposits, taking in and paying out notes and coins and making loans.

Bank is a financial institute where the money is deposited and supplied to the needy person for their different transaction who comes in the bank to fulfill their requirement of cash. So, we can say the main game of the play is to play with money and through it generates profit. Actually, the bank collects money from general public by attracting them with sound interest rate in their deposit. Through the money they have collected from the public they provide loans to the business house, industry and needy people etc. Now a day Bank also provides education and property loans. The bank charges the different interest rate, highly for loan and low for depositors. So, the difference gives actual profit. Just by collecting cash from saver and providing loans to the investor, we can say that actually the bank acts as an agent between the saver and the investor.

Without bank it would be quite impossible for the industrial list and entrepreneurs to go directly to general public for getting they're saving for investment. So, the simplest definition is that, bank takes the saving of the public by providing them with certain rate of interest & loans it to needy customers charging them certain rate of interest and earns some profit by doing this inter-mediation. This is the broadest from of banking but in this age banking is such a vague term. It does a lot more than deposits and credits. Remitting of money, issues of the money, guarantee, letter of credit, controlling monetary activities of country etc., are also major function of the bank. Bank as an institution originated from Italy. The bank of Venice, establish in 1157 AD, was the first bank in the world. Therefore, the

word bank also from Italian word 'bank' where means accumulative of money or stock. The second bank was Bank of Barcelona of Spain established in 1844 AD.

The history of modern banking business in Nepal is very short, less than half century. If we try to see the history of banking transaction in depth, evidence of money lending function are found in practice before 8th century. In 732 AD, Gunakama Dev the ruler of Kathmandu contracted Kathmandu town by collecting fund from people. Towards the ends of 14th century "Tankadhari" the moneylender, was the owner of the monetary transaction. Due to the lots of convenience brought by money lender, during the period of Prime Minister Random (1877-1885) established "Tezarath Adda" a financial institute which supply credit at 5% rate of interest against security of gold, silver and ornaments. The main objective of this institution was to free the people from moneylender exploration Nepal is a developing country. In the history of Nepal to solve this problem, for the first time commercial bank was established in 1937 AD. Nepal Rastra Bank came into existence as a central bank. Rastriya Banijya Bank was established in July 23rd 1966 A.D as a commercial bank. The purpose of this bank is also to provide facilities for the economic welfare of the general public.

In our country, apart from local commercial banks, a board of joint venture bank entered with the view to accelerate the pace of development of nation. At present there are many joint venture banks, which are running successfully in a competitive environment. Nepal Government deliberate policy of allowing foreign joint venture banks to operate in Nepal basically targeted to encourage local tradition ruin commercially bank to entrance their capacity through competition efficiency, mechanization and modernization is of computerization and promote customer services. At present there are 32 commercial banks in Nepal.

1.1.2 Meaning of the Bank

Bank is an Italian word “Banco” which means a bench where a moneylender sits and keeps account of his business. Today there is no exception that bank covers the almost entire sector in business performance of the country. Banking sector

definitely plays vital role in overall economic development of the country. It covers the larger sector for the development of the country. It collects the money from scattered spread from the market and promissory to repay principle money in any given time with interest on it. It mobilizes them to the productive sector. In this case Bank is secure place to deposit money rather than some other place and the depositor is benefited by the latest and most advanced blend of technologies and services. Thus Depositor could deposit money and withdraw money whenever needed. Bank plays an intermediary role in accepting deposit and granting loan. Many economists has defined bank more precisely.

Banks are among the most important financial institutions in the economy and essential business in thousands of local towns and cities. Certainly, banks must be identified by their functions, services, and roles they perform in the economy. Nowadays, the functions of bank are not only changing, but the functions of their principal competitors are also changing. The competitors like financial institution including security dealers, brokerage firms, and insurance companies are trying to be similar as possible to bank in the services they offer.

A commercial bank is a bank which deals in exchanging currency, accepting deposits giving loans and doing commercial transactions. (Commercial Bank Act 2031)

Banks are like reservoirs. Banks collect savings of millions of people and institutions and invest or lend for the expansion of business and balanced development of the country. Banks undertake to underwrite for raising capital and loans for companies, corporation and government. Banks are the suitable institutions for the settlement of payment of different credit instruments. Banks also act as the guarantor and agent. Banks are essentials for remittance services, issuance, circulation and utilization of money. Banks also help to maintain price stability. Banks help the government to formulate policy by providing various information and data. Banks also provide necessary information and data to the customers. In a word, banks are indispensable not only to maintain economic

activity, i.e., consumption, production, exchange, and distribution, but also for promoting economic development.

Therefore, a bank is an institution, which accepts deposits from the public and in turn advances loans by creating credit. Therefore, it should be differentiated from other financial institutions, as they cannot create though they accept deposits. That is why we call bank "a factory of credit" because it manufactures credit and sells it. Hence, a bank may be called the financial supermarket providing all kinds of monitory service, which is necessary for the industrialization and economic development of a country.

1.1.3 Brief Introduction of Joint Venture Bank

Joint Venture Banks are partnering having an alliance bank with more than one nation. It is financial intermediaries, financing deficit units with money deposited with them by surplus units. The financial system of a banking industry in precise is a complex network embracing payments mechanisms and the borrowing and lending of funds. Though they have important functions, the role played by these banks in the system is to act of their needs to those wishing to borrow.

One of the pre-requisite for the economic development process is the existing of a sound and healthy financial system, with high level of operating efficiency. The operating efficiency is monthly tested by their ability to mobilize savings and its deployment for production purposes. After the onset of economic liberalization process, there has been visible expansion in the financial system of Nepal. In these connections, Nepalese economy has witnessed several changes in the financial systems as a result of which several Joint Venture Banks were evolved in the last decade.

Joint Venture Banks were established to invite foreign investment and modern technologies to provide financial services to the target market. The role and importance of Joint Venture banking system is extremely enhanced in the prevailing Nepalese economy due to the indispensable functions played by them as

a result of which they have managed to perform in a significant way by gaining their position as the leading banks.

The management of these Joint Venture Banks in mainly held by foreign banks due to which they enjoy some of the competitive advantageous factors like electronic banking services, scientific credit evaluation, worldwide fund transfer systems, credit cards, Tele-banking, automatic teller machines and fully computerized banking networks with highly skilled personal, advanced management skills and international chain of branches.

Hence they have been able to perform satisfactory through service excellence and customer satisfaction, there by earning a stable and consistent return to their shareholders. The main objective of Joint Venture bank is to mobilize ideal resources for productive use after collecting them from different sources. Its role in economic development is so immense it brings about greater mobility of resources to meet the emerging necessity of the economy. The essence of Joint venture bank is the financial intermediate between the ultimate savers and borrowers. There are six Joint venture banks in Nepal which are as follows;

Table: 1.1

List of licensed Joint Venture banks in Nepal

Joint Venture Banks	Starting Date	Head Office
NABIL Bank Ltd	16/7/1984	Kantipath,Ktm
Himalayan Bank Ltd	18/1/1993	Thamel, Ktm
Everest Bank Ltd.	18/10/1994	Lazimpat,Ktm
Standard Chartered Bank Ltd	30/1/1987	Naya Baneshwor,Ktm
Nepal Bangladesh Bank Ltd.	07/6/1993	Naya Baneshwor,Ktm
Nepal SBI Bank Ltd	07/7/1993	Hattisar,Ktm

Sources: www.google.com

Joint Venture banks are registered in Nepal under the company act 2021 BS and operated under the Commercial Act 2031.They has joint venture between Nepalese investors and their parent banks. Out of six, only two Joint venture banks are taken for this study.

Himalayan Bank limited (HBL)

Himalayan Bank is a joint venture with Habib bank of Pakistan and started its operation in 1993 AD. This is the first joint venture bank managed by Nepali chief executive. It does not include government ownership. It is established to maintain the economic welfare of the general people to facilitate loan for agriculture, industry and commerce for providing the banking services to the people and country. It holds of a vision to become a leading bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns t the stakeholders of the bank. It provides various services and facilities such as Tele-Banking, 24 hours banking, Credit card facilities, Automated Teller Machine (ATM), Visa card, Letter of credit services, Safe deposit locker and foreign currency transactions, etc.

Nabil Bank Limited (NABIL)

The first joint venture bank of Nepal is the Nabil Bank Ltd, started its operations in July 1984.It was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursing its objective, Nabil provides a full range of commercial banking services through its 47 points of representation across the kingdom and over 170 reputed correspondent banks across the globe. It is a pioneer in introducing many innovative products such as Tele-Banking, 24 hours banking, Credit card facilities, Automated Teller Machine (ATM), Visa card, Letter of credit services, Safe deposit locker and Foreign currency transaction, etc.

1.1.4 Advantage and Disadvantages of Joint Venture Bank

Advantage

- Provide companies with the opportunity to gain new capacity and expertise.
- Allow companies to enter related businesses or new geographic markets or gain new technological knowledge.
- Access to greater resources, including specialized staff and technology.
- Sharing risks with a venture partner.
- Joint ventures can be flexible. For example, a joint venture can have a limited life span and only cover part of what you do, thus limiting both your commitment and the business' exposure.
- In the era of divestiture and consolidation, JV's offer a creative way for companies to exit from non-core businesses.
- Companies can gradually separate a business from the rest of the organization, and eventually, sell it to the other parent company. Roughly all joint ventures end in a sale by one partner to the other.

Disadvantages

- It takes time and effort to build the right relationship and partnering with another business can be challenging. Problems are likely to arise if: The objectives of the venture are not 100 per cent clear and communicated to everyone involved.
- There is an imbalance in levels of expertise, investment or assets brought into the venture by the different partners.
- Different cultures and management styles result in poor integration and co-operation.
- The partners don't provide enough leadership and support in the early stages.
- Success in a joint venture depends on thorough research and analysis of the objectives.

- Not considering the benefits of all the stake holders especially the persons who are displaced for big manufacturing concerns.

1.1.5 Brief introduction about interest rate

Interest is a payment for the use of money. The acts of saving and lending and the borrowing and investing activities within the financial system are significantly influence by the interest rate. The interest rate is the price paid for borrowing the scarce loan able funds from a lender for an agreed upon time period.

Interest rate is one vital tool for shaping economy. It plays important role in borrowing and lending. Generally the rate of interest is computed dividing the cost of borrowed funds in rupees by the amount of money actually used by the borrower. The interest rate is expressed in an annual percentage basis.

An appropriate interest rate structure affects the deposit and lending of any financial institutions, which in turn affects the economic up liftmen of the whole country. The impact of interest rate is both the saving and investment in the economy. Interest rates provides the price signals to borrowers, lenders, savers and investors .Higher rate encourages savings in greater volume and increases the lending activities of funds. Lower interest rate, in other hand, discourages the savings and reduces the lending activities as well.

Interest rate in the free market economy is determined by the free interplay of the demand and supply forces. The interest rate performs several important roles in order to function properly the money and capital market in the economy. It performs the several major functions like generating adequate volume of savings to fund investment to grow the economy, to direct the flow of credit in the economy toward those investment projects having greater expected rate of return, bringing into balance the supply of money within the public's demand for money, and acting as a tool to adopt government policy.

1.2 Statement of the problem

Interest rate is an essential tool in the field of finance and economies. According to economic theory saving increase as increase in interest rate with investment increases as decrease in interest rate. Generally when interest providing in deposits is very less people keeps their surplus funds idle and when interest charge on lending is very high the possible investors also can't borrow funds for investment in priority sectors of the economy. In such situations how could be possible to develop country's economy in international market.

The interest rate plays important role for the banking development. The favorable investment climate makes appropriate interest rate. The interest is a price of money. It is different in depositor and lender. The difference between the deposit and lending margin is the gain of bank. The interest rate charged and offered of a financial institutions and commercial banks was regulated by central bank until before few years, but now these institutions are free to fix their interest rate. Commercial banks can play vital role by adopting effective interest rate policy on deposits and lending for encourage investment in every sector of economy. An appropriate interest rate can divert investment in proper field. On the other hand the lending rate of interest must be attractive to the borrowers. So that they will be able to enjoy benefits by utilizing borrowed fund.

With the above discussed phenomena, this study attempts to answer the following questions.

- What are the interest rate structures of commercial Joint venture banks in Nepal?
- What are the relationship of interest rate with deposit amount and lending amount of commercial joint venture banks?
- Is the interest rate on deposit of joint venture Banks can attract to the depositor?

- Is the lending rate of joint venture banks can attract to the borrower or investor?
- Is the interest rate spread satisfactory or not provided by the commercial joint venture banks?

1.3 Objectives of the Study

The main objectives of this study is to know the overall influence of interest rate on deposit and lending of joint venture banks as well as to identify whether the interest rate spread is satisfactory or not. In the same way this study also aims to identify whether the theories that are taught in university courses are applicable or not in Nepalese financial sector. Besides this the other specific objectives related to this study are as given below.

- To explore the interest rate structure of HBL and NABIL.
- To analyze the relationship of interest rate on deposit amount and lending amount of HBL and NABIL.
- To examine the sensitivity of interest rate to the investment (borrowing).

1.4 Significance of the Study

An appropriate interest rate can divert investment in proper field. Lower interest rates discourage the saving and encourage the investment. Higher the inflation, higher will be the interest rate. In the contest of developing country like Nepal because most of the theories of financial markets and institutions are determined by the study conducted by developed countries.

It is crucial task of top level management to fix interest rate. Even though people have more souring and even need more money for investments are not familiar with the interest rate structure of banks. In this study major functions of commercial joint venture banks will be analyzed by using various mechanisms. This study will help the policy makers to formulate strong policy regarding interest rate charged on deposits and lending in our Nepalese contest. Further this study

will help to various parties such as further researcher, students, investor, business organization and individual to get useful information about interest rate deposits and lending.

1.5 Limitation of the Study

A research is the vast investigation for the setline of the problems. There is not far from several limitations. That weakens the heart of the study e.g. inadequate coverage of banks, time taken, reliability of statistical and financial tools used and other variations. The main limitations of this study are as follows:

- The samples are taken only from joint venture banks; other financial intermediaries are not included in this study.
- This study is based on the data of seven years period and hence the conclusion drawn confines only to the above period.
- The reliability of this study depends upon the information provided by concerned banks and published data.
- Most of the data used under this study are of secondary data.
- There are various factors that affect the deposit and lending amount of commercial joint venture banks. However this study is focused on the interest rate.

1.6 Organization of the study

According to the objectives of this study, the study has been classified into five chapters, which are as follows;

Chapter-I: Introduction

This first chapter is about Introduction which included Background of the study, Origin of Bank, Meaning of Bank, Role of Commercial Bank, Brief Introduction of Joint Venture Bank, Brief Introduction about Interest Rate, Statement of the

Problem, Objective of the study, Limitation of the study, Significant of the study and Organization of the study.

Chapter-II: Review of Literature

This second chapter is about Review of literature, is related with review of available literatures in the field of the Study being conducted. This section includes review of the theories of the concerned topic, review of books and review of various empirical studies.

Chapter-III: Research Methodology

This Chapter is Research Methodology which includes tool and techniques that will use analysis of the data as well. This chapter includes research design, population and samples, sources of data, methods of data analysis.

Chapter-IV: Data presentation and Analysis

This Chapter includes Data presentation and Analysis is devoted to the presentation, analysis and interpretation of the study through definite course of research methodology and draws the major findings.

Chapter-V: Summary, Conclusion and Recommendation

Fifth chapter includes Summary, Conclusion and Recommendation which is conclusive and suggestive chapter.

Besides these, bibliography and appendices are presented at the end of the thesis. Similarly acknowledgement, table of contents, lists of tables, list of diagrams, abbreviations are included in the front of this report.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature is basically a stock taking of available literature in one's field of research. The literature survey thus provides the students with the knowledge of the status of their field of research. The primary purpose of literature review is to learn not to accumulate. It enables the researcher to know:

- What has been done in the subject?
- What others have written about the topic?
- What theories have been advanced?
- What approaches have taken by other researchers?
- What are areas of agreement or disagreement about the research?
- Whether there are gaps that can be bridged through the research purpose.

The purpose of literature review is thus, to find out what research studies have been conducted in one's chosen field of study and what remains to be done. Therefore, this chapter has been divided into three parts. They are as follows:

2.1 Conceptual Review

It works as a theoretical framework in the field of research. All the basic knowledge required in the field of research can be cleared from the conceptual review. The concepts of those required basic knowledge are as follows:

2.1.1 History of Interest Rate in Nepal

In the context of Nepal, interest rate is regulated by the central bank during the early stage of financial market development taking the period from 1955 to 1965. But, the country's central bank namely NRB gradually began to liberalize the determination of interest rate on a phase-wise basis according to compatibility of the banks & the financial institutions that have developed in the country.

In the early mid 1980's the country has adapted liberal economic policy. Number of finance companies and commercial banks began to develop and government made the liberal policy in maintaining the interest rate structure. Liberalization in determining market interest rate was encouraged for commercial banks, established under joint venture in association with foreign banks in private sectors. There are full discretions to NRB in determining interest rate structure of banks & financial institutions taking from the period 1960 to 1975. Still NRB is empowered in the fixation of interest rate which commercial banks & financial institutions have to follow although they can provide higher rates after fulfilling the minimum interest rates set by NRB.

On 16 November 1984 government had provided autonomy in offering the interest rate on saving and time deposit to the extent of 1.5 percent and 1 percent points respectively above the prevailing rates. In 1986, financial institutions got freedom in fixing their interest rates in deposits & loans. In addition, there was also, limitation on the interest rate amounts the different loans on provided for the productive & priority and full deprived sector.

However, there was limitation imposed on certain sectors of lending such as the rate of maximum of 15 percent on the priority sectors loan. And for other kinds of loans financial institutions were given freedom to maintain the interest rate structure. In this way government provided freedom as well as limitation on the determination of interest rate.

On August 22, 1992, NRB issued some directives to commercial banks and financial institutions to clearly spell out the interest rate on deposits. NRB also instructed the bank & their interest rate spread on deposit and credit at 6% within the mid – December 1993. A further instruction to banks & financial institutions was issued in 2002, and now the interest rate spread required to be maintained by commercial banks & financial institutions has also been removed. The following table shows development of interest rate in the Lumley.

Table: 2.1

Phase-wise Development in Interest Rates

1960	Sole and whole monopoly to NRB to fix interest rates on deposits and loans.
1976	NRB empowered to determine interest rate.
1980	Process continued for NRB to fix interest rates from the minimum level of interest rate fixed by NRB.
1986	Freedom to commercial banks to offer higher interest rates from the minimum level of interest rate fixed by NRB.
1989	Interest rate fully deregulated.
1992	Issue directive to commercial banks to spell out interest rate policy encouraging competition in interest rate.
1993	Spread not to exceed 6 percent.
1999	Decreased spread to 5 percent.
2002	Removal of spread.
2003	Continuity of interest rate independence to banks and financial institutions.
2004	Comparative consideration of market interest rate with quoted interest rate.
2005	Emphasis of decreasing the spread.
2006	Trend of lower interest rate on deposits compare to interest charge on loan.

Source: NRB Depravities

The interest rate regime in Nepalese perspective change from 1960 – 1980 to out that of ultimate deregulation of interest rate and removal of spread from 1986 to 2002. At present there is complete freedom to have competitive interest rate with hope of maintaining, efficiency is financial system an important part of government's financial liberalization policy.

However, NRB with change in monetary policy has given directives to the commercial banks and financial institutions to maintain balance in determination of interest rate on deposit and loan. The enactment of the umbrella act, putting all financial institution under the same directives has directed banks and financial institutions to minimize the spread between interest rate on deposit and loan. The sensitivity of the interest rate is considered vital in today's financial market operating in the country. (Shrestha & Bhandari, 2007: p128-130).

2.1.2 Meaning of Interest Rate

A rate which is charged or paid for the use of money is known as interest rate. Interest is the amount paid by a borrower to a lender above the amount (the principal) that has been borrowed. An interest rate is often expressed as an annual percentage of the principal. It is calculated by dividing the amount of interest by the amount of principal. Conceptually, interest is both a payment and receipt for the use of money. Interest, therefore, can be considered from the above two point. If interest is paid, it can be considered as a 'cost'. One the other hand, if interest is received, it can be considered as a 'return'. Since, money can return over a period of time, interest rates are often considered as an expression of the time value of money. It is the price of credit but unlike other price in the economy, the rate of interest is really a ratio of two quantities-the money cost of borrowing divided by the amount of money actually borrowed, usually expressed on an annual percentage basis. For example, if a lender (such as a bank) charges a customer Rs 90 in a year on a loan of Rs 1000, then the interest rate would be 90/1000 *100% = 9%.

However, the neo-classical economist defined the interest as the price for the use of loan able funds. But the modern economist, in their effort to avoid these divergent and controversial views about the nature of interest, have explained it in terms of productivity, saving, liquidity preference and money. In other words, interest is the rewards for the pure yield of capital of saving for forgoing of liquidity and surplus of money. The rate of interest, according to Keynes, is a

purely monetary phenomenon and in his theory, he has presented "a proposition that the rate of interest influences the level of economic activity by first influencing the rate of real investment in the economy". According to him, the real investment is in fixed capital or durable machines. Schulz has also expressed his view that, "An important aspect of interest rate policy is the setting of an appropriate margin between the lending and deposit rate. If the margin is too high, bank will make excessive profits and this leads to waste of save resources. If it is too low, it will discourage intermediation and devitalize financial institutions. At the same time, the demand for credit goes on increasing being affected by the cheap loan rates. Hence, it can be concluded that changes in interest rate structure produce either positive or negative impact upon the growth of a developing economy such as ours" (Rose, 2003: p113).

Interest rate is one of the crucial indicators of financial as well as economic system of the country. Interest rates send price signals to borrowers, lenders, savers and investors. For example, higher interest rate generally brings forth a greater volume of saving and stimulates the lending of funds. Lower rate of interest, on the other hand tends to dampen the flow of saving and reduce lending activity. Higher interest rate tends to reduce the volume of borrowing and capital investment and lower interest rates stimulate borrowing and investment spending.

The interest rate is the price of money; the price of renting the use of the resources that money commends for a specified by the free interplay of supply and demand in a market economy. The price of the money, 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 for individuals and others to postpone current consumption (save) 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 rate.

2.1.3 Functions of the Interest Rate in the Economy

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

- It helps guarantee that current saving will flow into investment to promote economic growth.
- It brings the supply of money into balance with the demand of public for money.
- It rations the available supply of credit, generally providing loanable funds to those investment projects with the highest expected returns.
- It is a significant tool of government policy through its influence on the volume of saving and investment. If the economy is growing too slowly and unemployment is rising, the government can use its policy tools to lower interest rate in order to stimulate borrowing and investment. On then other hand, an economy experiencing rapid inflation has traditionally called for a government policy of higher interest rate to slow borrowing and spending and encourage more saving (Rose, 2003: p113)

2.1.4 Theories of Interest

Various interest rate theories have been propounded by various economists, which describe how interest rate is determined in various situations. There is numerous interest rates in financial market such type of differences exists due to the risk premium associated with the issuer. Even securities issued by the same borrowers often carry a variety of interest rates. In this section, we focus upon those basic forces that influence the level of different interest rates.

To uncover these basic rate determination forces, however, we must make a simplifying assumption. We assume in this chapter that there is one fundamental interest rate in the economy known as the pure or real rate of interest, which is the component of all interest rates. The closed approximation to this pure rate in the real world in the market yield on the government bonds minus inflation. The rate

of interest and Treasury bond is called risk free rate of interest, which consists of real rate of interest plus premium for inflation. It is a rate of return presenting no risk of financial loss to be investor and representing the opportunity cost of holding idle cost 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 are determined by adding the risk premium by examining the special characteristics of the securities issued by individual borrowers. So, the pure rate of interest is only possible to the government issuer and that issuer other than government will pay higher rates due to the presence of risk of loss attach to their securities. The risks associated with liquidity, marketability, default, and maturity cause to differ the pure interest rate with other interest rates. Several theories have been developed over the period to determine the pure or risk free rate of interest. These theories are:

1. The Classical Theory of Interest Rate

It is one of the oldest theories to determine the pure interest rate developed during the eighteenth and nineteenth century by a number of British economists and later elaborated by Fisher in 1930. According to this theory the interest rate is determined by two factors: (i) the supply of savings, derived mainly from the households (Personal/Individual) and (ii) Demand for capital investment, coming mainly from the business sectors.

Higher interest rate increases the attractiveness of savings relative to consumption spending, encouraging people to substitute current saving (and future consumption) for some quantity of current consumption. This substitution effect calls for a positive relationship between interest rates and the volume of saving.

- **Saving by Households**

Generally most of the saving in modern industrialized economies is carried out by individual and families. For these households, saving is simply abstinence from consumption spending. Current savings, therefore, are equal to the difference between current income and current consumption expenditures. In making the

decision on the timing and amount of saving to be done, households typically consider several factors: the size of current and long-term income, the desired savings target, and 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. If the rate of interest in the financial markets rises from 5 to 10 percent, the volume of current savings by households is assumed to increase from $ 100 to $200 billion (Ibid p.p.193).

- **Saving by Business Firms (Business Saving)**

Not only households, the business also makes the savings in the form of retained earnings reflected in the net worth accounts. This amount of annual retained earning measures the volume of current savings made by businesses and contributes to the annual investment requirement by business firms. Business saving is influenced by two factors: the volume of profit generated by businesses and the level of interest in the market.

The critical element is determining the amount of business savings is the level of business profits. If profits are expected to rise, businesses will be able to draw more earnings and capital markets for funds. In other hands, when profits falls but firms do not cut back and their investment plans, they are formed to make heavier use of money and capital markets for investment funds. The demand for credit rises, and interest rates may rise as well.

Although the principal determinant of business saving is profits, interest rate also play a role of what proportion of current operating costs and long term investment expenditures should be financed internally and externally. Higher interest rates in the money and capital markets typically encourage firms to use internally.

Most business hold savings in the form of retained earnings (as reflected in their equity or net worth accounts). (Thapa, 2067: p338)

RE = After tax corporate profits – Dividends

The volume of business savings depends on these key factors:

- Level of business profits; higher profits-higher will be the savings.
- Interest rates also play a role in the decision of what proportions of current operating costs and long-term investment expenditures should be financed internally and what proportions externally.
- Higher interest rates in the money and capital markets typically encourage firms to use internally generated funds more heavily.

➢ **Saving by Government (Government Saving)**

Savings can also be made by government but usually in less frequently. The government savings is only possible if government receipts unexpectedly exceeds over the actual amount of expenditure. In another word Government also saves when the budget surplus = Tax receipts - Government expenditures Most government saving appears to be unintended saving that arises when government receipts unexpectedly exceed the amount of expenditures.

The factors affecting government saving are:

- Income flows in the economy (out of which government revenues arise) Pacing of government spending programs
- Interest rates are not a key factor.

Total saving = Personal Saving + Business Saving + Government Saving

- **The Demand for Investment Funds**

The savings made by household, business, government are important determinants of interest rate but they are only one side of determinants. The other factor is investment spending made by business firms government and in some case by households. Business requires huge amounts of funds each year to purchase equipment, machinery and inventories and to support to 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 economists, interest rate and investing fund have inverse relationship (Rose, 2003: p195).

At low rate of interest more investment project becomes economically viable and firms require most funds to finance a longer list of projects. On the other hand, if the rate of interest rises to high levels, fewer investment projects will be pursued and fewer funds will be required from the financial markets.

2. The Equilibrium Rate of Interest in the Classical Theory of Interest Rate

This theory believes that interest rate in the market formed by the interplay of the supply of saving and demands for capital investment in the economy. The equilibrium rate of interest will obtain at the point where the savings supplied to the market is exactly equals to the funds demanded for the funds demanded for the investment. If the market rate is above the equilibrium and state the volume of saving exceed the demand for investment, then savers will offer their funds lower

and lower rate until this market rate approaches to the equilibrium. If the market rate lies below the equilibrium, volume of demand for investment exceeds the saving, then business firm will bid-up (increase) the interest rate until it approaches the level of at which saving become equal to the demand for investment. (Thapa, 2067: p341)

3. The Liquidity Preference Theory of Interest Rate

Liquidity preference theory of interest rate assumes that the equilibrium interest rate is formed in the money market at point where the quantity of money matches the total demand for money.

It is assuming that individual inherently prefer money among all financial assets as money can be used to make payments and it is the most liquid assets but wealth holders are persuaded to hold financial assets other than money because this non-money assets offer in interest return which do not exist in the holding of idle money. Further, the greater the spread between the yields on non-money financial assets less will be demand for money holdings and greater the demand for financial assets and vice versa.

4. The Lonable Fund Theory

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

- **Supply of Loanable Funds**

The major sources of supply of loanable fund are from two sources: 1) The amount of saving by households, business, governments and 2) The amount of new money created by the commercial banking system.

- **Saving:**

Saving refers to the postponement of current consumption. The decision to save is the decision to forgo current consumption in order to have a larger quantity of consumption in the future (Cooper & Fisher:1930). Individual or household save for a variety of reasons but there is little evidence to suggest that the quantity of loanable funds supplied through saving is clearly 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. There is little reason to believe that them volume of saving at business firm is strongly influenced by the level of interest rates.For governments, the volume of saving is defined as the difference between revenues and expenditures such that saving exists when revenues exceed expenditures (a budget surplus).

- **New Money**

Although the volume of saving is the principal source of loanable funds in financial markets, the supply of the loanable 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.

There is little evidence that either the central bank or commercial banks are substantially influenced in the money creation process by the level of interest rates. The principal factor that determines the volume of new money created by the banking system is the amount of reserves, and the principal factors that determines the amount of reserve is central bank monetary policy. Neither of these factors should be directly influenced by the level of interest rates.

In summary, the supply of loanable fund is the sum of the supply of savings and the amount of new money created. This supply schedule of loanable fund may be increased by either an increase in the desire to save by business, households or governments or by the creation of more new money by commercial banking system. Conversely, the supply of loanable funds may fall because of a reduction in the desire to save of a reduction in the amount of new money created.

- **The Demand for Loanable Fund**

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

- **Consumer Demand**

Domestic consumers demand loanable 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 whey 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 loanable 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 loanable funds demanded by the business sector increases as the rate of interest falls.

- **Government Demand:**

Government demand for loanable 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 Loanable Fund**

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

5. Rational Expectancy Theory of Interest

The theory of rational expectations was first proposed by John F. Muth of Indiana University in the early 1960s. He used the term to describe the many economic situations in which the outcome depends partly on what people expect to happen. The price of an agricultural commodity, for example, depends on how many acres farmers plant, which in turn depends on the price farmers expect to realize when they harvest and sell their crops. As another example, the value of a currency and its rate of depreciation depend partly on what people expect that rate of depreciation to be. That is because people rush to desert a currency that they expect to lose value, thereby contributing to its loss in value. Similarly, the price of a stock or bond depends partly on what prospective buyers and sellers believe it will be in the future.

The use of expectations in economic theory is not new. Many earlier economists, including A. C. Pigou, John Maynard Keynes, and John R. Hicks, assigned a central role in the determination of the business cycle to people's expectations about the future. Keynes referred to this as "waves of optimism and pessimism" that helped determine the level of economic activity. But proponents of the rational expectations theory are more thorough in their analysis of expectations.

The influences between expectations and outcomes flow both ways. In forming their expectations, people try to forecast what will actually occur. They have strong incentives to use forecasting rules that work well because higher "profits" accrue to someone who acts on the basis of better forecasts, whether that someone is a trader in the stock market or someone considering the purchase of a new car. And when people have to forecast a particular price over and over again, they tend to adjust their forecasting rules to eliminate avoidable errors. Thus, there is continual feedback from past outcomes to current expectations. Translation: in recurrent situations the way the future unfolds from the past tends to be stable, and people adjust their forecasts to conform to this stable pattern.

The concept of rational expectations asserts that outcomes do not differ systematically (i.e., regularly or predictably) from what people expected them to be. The concept is motivated by the same thinking that led Abraham Lincoln to assert, “You can fool some of the people all of the time, and all of the people some of the time, but you cannot fool all of the people all of the time.” From the viewpoint of the rational expectations doctrine, Lincoln’s statement gets things right. It does not deny that people often make forecasting errors, but it does suggest that errors will not persistently occur on one side or the other.

Economists who believe in rational expectations base their belief on the standard economic assumption that people behave in ways that maximize their utility (their enjoyment of life) or profits. Economists have used the concept of rational expectations to understand a variety of situations in which speculation about the future is a crucial factor in determining current action. Rational expectations is a building block for the “random walk” or “efficient markets” theory of securities prices, the theory of the dynamics of hyperinflations, the “permanent income” and “life-cycle” theories of consumption, and the design of economic stabilization policies.

6. Market Segmentation Theory

Market Segmentation Theory (MST) posits that investors and borrowers have strong maturity preferences that they try to attain when they invest in or issue fixed income securities. As a result of these preferences, the financial markets, according to MST, are segmented into a number of smaller markets, with supply and demand forces unique to each segment determining the equilibrium yields for each segment. Thus according to MST, the major factors that determine the interest rate for a maturity segment are supply and demand conditions unique to the maturity segment. For example, the yield curve for high quality corporate bonds could be segmented into three markets: short-term, intermediate-term, and long-term. The supply of short-term corporate bonds, such as commercial paper, would depend on business demand for short-term assets such as inventories, accounts receivables,

and the like, while the demand for short-term corporate bonds would emanate from investors looking to invest their excess cash for short periods. The demand for short-term bonds by investors and the supply of such bonds by corporations would ultimately determine the rate on short-term corporate bonds. Similarly, the supplies of intermediate and long term bonds would come from corporations trying to finance their intermediate and long-term assets (plant expansion, equipment purchases, acquisitions, etc.), while the demand for such bonds would come from investors, either directly or indirectly through institutions (e.g., pension funds, mutual funds, insurance companies, etc.), who have long-term liabilities. The supply and demand for intermediate funds would, in turn, determine the equilibrium rates on such bonds, while the supply and demand for long-term bonds would determine the equilibrium rates on long-term debt securities.

Important to MST is the idea of unique or independent markets. According to MST, the short-term bond market is unaffected by rates determined in the intermediate or long-term markets, and vice versa. This independence assumption is based on the premise that investors and borrowers have a strong need to match the maturities of their assets and liabilities. Moreover, according to MST, the desire by investors and borrowers to avoid market risk leads to hedging practices that tend to segment the markets for bonds of different maturities.

2.1.5 Factors Affecting Interest Rates

There are following factors that affecting the interest rates:

- **Marketability**

Marketability is the capability of being sold quickly at low cost transaction cost. Marketability risk deals with the degree of difficulty in being able to convert a financial claim into cash at its most react transaction price. Savers who purchase poorly marketable securities expect to be compensated for the lack of marketabiliy. This represents an additional interest spread and is referred to as the marketability of liquidity risk premium.

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

- **Default Risk**

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

- **Prepayment Risk**

A new form of risk affecting interest rate confronting modern investors arises when they acquire so called loan backed securities. There loan backed securities are usually created when a lending institution, such as bank or mortgage company, removes a group of similar loans from its balance sheet and places them with a trustee (such as security dealer) to raise new capital for the lending institution. Each of these securities derives its value from the income earning potential of the pool of loans that backs of securities.

- **Servicing Cost**

Servicing cost means that the process of collecting interest and principal payment s providing accurate records or monitoring the ongoing position of the borrowing involves considerable operating costs. Lender must be compensated for the

servicing costs. This cost is included in the interest rate charged and is referred to as the servicing cost

- **Call privileges**

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

- **Taxability**

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

2.2 Concept of Deposit

An arrangement whereby an individual or organization may place cash for the safekeeping in a bank, discount house or financial institution is known as deposit. Deposit is nothing but it is a type of asset. It is understood that the institution may invest the cash and pay the depositor a specified amount of interest and that the depositor can reclaim the full value of the account according to the agreed upon procedures governing the account. The account holder retains rights to their deposit, although restrictions placed on access depend upon the terms and

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

Though the banks pay an important role in influencing the customer to save and open deposit account with it, it is ultimately the customer who decides where s/he should deposit his surplus funds in current deposit account, saving deposit or fixed/time deposit account. 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 account and issue cheques against them to their creditors. Deposits also arise when customers are granted accommodation in the form of loans. 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 as deposit (Bhandari, 2003: p73).

2.2.1 Types of Deposit

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

- **Current Deposit:**

A current deposit is a running account with amounts continuously. These accounts are also called demand depositor demand liabilities since the banker is under the obligation to pay money in such deposits on demand. The account never becomes time barred, because the limitation does not run until 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 organizations whose banking transactions are numerous and frequent. This type of account is just a facility by a bank to its customer s. So such deposit doesn't yield and interest return.

- **Saving Deposit:**

According to commercial bank act 2031 saving accounts means "An account of amounts deposited in a bank for saving purpose". The saving deposit bears the features of both the current and fixed period's deposits. Saving account is mainly meant for non-trading customers who have potential for saving and who don't have numerous transactions entering their account. While opening the account the minimum compensating balance differ according to the banks rule. Similarly there is also divergence as to how much amount of money can be withdrawn. But if the customers want to withdraw more money from the bank which is not allowed by it but if he/she gives pre-information to the banks, he/she can withdrawn more money. The bank fixes the minimum and maximum withdrawal amount that can be drawn through a cheque from the deposit.

- **Fixed Deposit:**

Under the commercial bank act 2031(1974) "Fixed account means an account of amounts deposited in a bank for certain period of time." The customers opening such account deposit their money in the account for 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 deposit. The bank invests this money on the productive sector and gains profit from this deposit. The principal amount with interest must be returned to the customer after expiry of fixed time. Bank generally gives loans up to 90% of the deposit against the security of the deposit for this bank charge.

2.2.2 Importance of Deposit

The income of an individual is divided into consumption and saving. Deposit arises from 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. The borrowers from banks, invests this fund in the productive sectors yielding more return than the interest on borrowed fund. This investment leads to create new employment opportunity in the economy. Ultimately, due to the 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 them 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 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)

The word credit means trusting. In the credit transactions the lender (or banks) must have confidence in the borrower that she/he will be able to repay the money. In credit transactions, the creditors' turns over to the debtor to repay an equivalent amount usually money in future plus as added sum called interest. In other words the commercial bank earns profit by lending the amount in terms. Banks loans are classified as: a) loans and advance b) Overdrafts c) Cash credit d) discounting of bills and so on. Beside this, the other forms of credit are bills of exchange cheques, Drafts, Promissory Note, Letter of credit (LC), Travellers cheque, Treasury Bills(T-Bills),etc.

2.3.1 Factors affecting the volume of lending

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

- **Credit (lending) Rate:**

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

- **Rate of Return:**

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

- **Investment opportunity**

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

- **Pace of Financial development:**

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

- **Basis Infrastructure:**

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

- **Political situation:**

Political instability is one of the causes of low volume credit .In such situation none would like to take own capital. The present condition of the country is the glaring example of this.

2.4 Concept of Inflation

Inflation in common sense is increment in general or average price level in the whole economy. It is the increase in general price level. Inflation is not a temporary fluctuation in price but it is sustained and appreciable increase in price. Due to the increase in general level in price, the value of purchasing power of money declines as there is and inverse relationship between the general level of price and value of money. According to economic couther "Inflation means a state in which the values of money is falling i.e. prices are increasing." It is generally rise in prices across the economy.

During inflation, the cost of living increases rapidly, so inflation severely hurts the people who depend on the income from fixed income securities like bonds and preferred stock. Similarly as purchasing power of money falls as well as the debtors gain and the creditor loses.

2.4.1 Inflation and Interest Rates

Inflation occurs when the average price level in the economy rises. Interest rates present the "Price" of credit. Are they also affected by inflation? The answer is yes. There is positive correlation between interest rates and inflation. In other words, increase in inflation increases the interest rates. But the exact effect of inflation an 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.

2.4.2 The Nominal and Real Interest Rates

Before expanding 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. These rates are actual rates that are used to transact with the customers. For example an announcement in the financial press the major commercial banks have raised their prime lending rate to percent per annum indicates what nominal interest rate is now being quoted by banks to their best customers. Similarly the real interest tare is the return to the lender. 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.

$$(1 + N) = (1 + r) - (1 + i)$$

where:

N = nominal interest rate

r = real interest rate

i = rate of inflation

- **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 money. This relationship was first formalized by economist Irvin fisher and is preferred to as the fisher effect. According to fisher effect, nominal interest rate is related to the real rate by the following equation.

Nominal interest rate = expected real rate inflation premium + (expected real rate X inflation premium)

This above equation can be written as:

Nominal interest rate = expected real rate + inflation premium rate

It means that if inflation premium increases than nominal rate also increases.

2.4.3 Interest Rate Spread

Interest spread is the difference between weighted average rates of interest a lending on interest earning assets and weighted average rate of interest an interest paying liabilities. It can be calculated as:

Interest rate spread = Interest income/ earning assets – Interest expenses/ interest paying liabilities.

2.5 Review of Related Studies

Various studies have been made or done in this field. Some of them have been reviewed so that the chances of duplication can be minimized.

2.5.1 Review of Journals and Article

Sharma (2003). on the entitled "Banking the Future on Competition" found that all the commercial banks are establishing and operation in urban areas, his achievements are:

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

Shrestha (2004). in his article, "A study on deposit and credit of commercial banks in Nepal", conclude that the credit deposit ratio would be 51.30, other things remaining the same. In Nepal, this was the lowest under the period of review. Therefore, he had strongly recommended that the joint venture banks should try to give more credit entering new field as far as possible, otherwise they might not be able to absorb even the total expenses. (Nepal Rastra Bank Samachar, NRB 2004)

Bhandari (2007). conducted his article on "The impact of Interest rate structure on investment portfolio of Commercial Banks in Nepal". The objective of the study is given below:

- To cast a glance at the historical background of interest rate structure of commercial banks, policies, decision and strategies regarding it and their impact.
- To present and analysis interest rate structure of commercial banks in different time period.
- To assess the impact of interest rate structure of commercial banks of their investment portfolio by analyzing their deposits, loans, advances, interest spread, investment and bills purchased and discounted.

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

Rates of commercial banks have been fluctuating. Deposit and lending rate were increased immediately after linearization of the interest rate on august 31, 1989, but however started to decline which have helped in increasing the credit flow.

Interest rate structure has direct influence on profitability of commercial banks. Decreasing lending rates helps to increase the profitability through increasing the credit. Most of the banks are having similar interest rate structure, which lesions the importance of linearization of interest rate.

Bajracharya (2010*).* "Rastriya Banijya Bank: A comparative performance study" published in Rajat Jayanti Smarika, "Despite the growth of commercial banks is not consistent, low growth of local banks and JVBs. The mobilization of rural savings is better in case of local banks. Credit expansion is decreased in local banks than JVBs. Credit deposit ratio is better in JVBs. Nonperforming loan is greater in local banks and profitability is greater in JVBs. Local banks are forced

to open and continue their branches at rural areas therefore the competition among the local banks and JVBs is not healthy."

2.5.2 Review of Unpublished Thesis

Dangol (2005). on the "Impact of Interest Rate on Financial Performance of Commercial Banks" concludes:

- Most of the commercial banks contradict the general financial theories.
- The relation between amount of deposits and interest rae 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 (2007). in the topic "Interest Rate and its effect on Deposit and Lending." In this study, the disseminator tries to portrait the relation of interest rate with deposit and lending amount. The conclusion drawn by Mrs Bhatta is:

- 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. So 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 her conclusion about her study, in her own words, as follow:

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.

Rai, (2008). " Interest Rate Structure of Financial Markets in Nepal" which gives 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, Mr. Rai found similar result as discovered by the Mrs. Bhatta. According to Mr. Rai, the major findings of the study are:

- 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, Mr. 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 in not affected by risk-free rate of interest.

Parajuli (2009). carried out a study entitled "Interest rate and its relation with Deposit, Lending and Inflation in Nepal". In this study, the disseminator tries to portrait the relation of interest rate with deposit and lending amount (i.e. existence of substitution effect).

The findings drawn by Parajuli were as follows:

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

- Analysis of fixed deposit amount and fixed interest rate shows negative relationship except RBB and NBL. Theoretically, there is negative relationship between lending interest rate and lending amount. In this study for the 5 sample banks except NBL have negative correlation between these two variables.

- The relationship between interest rate on deposit and inflation rate is positive. Similarly, the correlation between interest rate on lending and inflation rate is found to be moderately positive. This thesis concluded that the spread between deposit interest rate and lending interest rate is in decreasing trend.

Neupane (2010). carried out a study entitled "Interest Rate Structure and Its Influence on Deposit and Lending of Joint Venture Banks in Nepal". He has shown the influence of interest rate on deposit and lending in Nepalese Joint Venture Banks. The conclusion drawn by Mr. Neupane is:

- 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 samples 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 borrower's investor.
- Sample Banks under study show weak on mobilization of collected deposit.

Pokharel (2011). on the topics "Determinants of Interest Rates in Nepalese Financial Markets", also give 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.

Shrestha (2012). on the topics "Interest Rate Structure and its Impact upon Deposit, Lending and Inflation in Nepal" The conclusion drawn by Shrestha is:

- The interest rates on both deposit and lending of all sample banks are found to be in fluctuating trend.
- The saving deposit amount and saving interest rate have negative relationship.
- Analysis concludes that all sample banks have negative correlation between lending interest rate and lending amount.
- The relationship among interest rate on deposit and inflation rate is positive.
- The correlation between interest rate on lending and inflation rate is found to be negative.

2.6 Research Gap

Research gap focuses that the researcher how much trying to give new things from his/her study with compare to previous studies held by different researcher. Due to changing the time and circulation of environment the previous and present may be different in many ways. This is a research gap between the present research and previous research.

We have had a plenty of research work done on the topic "comparative study of Interest Rate Structure and its impact on Deposit and Lending of SBI and HBL", where these banks were crucial as it determine its strength and weakness on the aspect of interest rate policies with the NRB directives. Here this study focused on analyzing the primary data relating to interest rate structure of these banks.

Hence in this study overall joint venture banks are taken in a definable way which makes sense. The selection of the banks is made here on the basis of joint venture banks.

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It highlights the method adopted in the present study. It also focuses about the sources and limitation of the data. Which are used in the present study? It indicates the various sequential steps to be adopted by the researcher in studying a problem with certain objectives in view. So it the methods, steps and guide lines, which are to be followed in analysis and it is a way presenting the collected data with meaning fully analysis.

The reliability and validity of research work is facilitated by research methodology. The study of research methodology give the student the necessary training in gathering materials and arranging them, participating in the field work which required, and also training in techniques for collection of data appropriate to sorting it out and interpreting it.

3.1 Research Design

Research design is a plan, structure and strategy of investigation. It is simply the framework for the study and helps the analysis of data related to study topic. It constitutes the blue print for the collection, measurement and analysis of data. It is descriptive and prescriptive in nature. The relevant and necessary data were collected from annual reports of various joint venture banks and publications of Nepal Rastra Bank for analytical purpose.

3.2 Population and Sample

Now, 32 commercial banks (including government owned, public and joint venture) are operating in Nepal. Due to the time and resource factors, it is not possible to study all of them regarding the study topic. Therefore samplings are done selecting from population. The population for the study comprises 32 commercial banks out of them all two joint venture banks are taken as sample to

draw the conclusion about population since population of joint venture banks are not large.

3.3 Sources of Data and Collection Procedure

The research is based on both the secondary and primary data. These secondary data are collected mainly from sources like annual reports, prospectus published bulletins, newspaper, journal internet and other sources. Besides this in some case primary data are also used. They can be collected through questionnaire distributed to the executives. Secondary data are collected from various publications of concerning organizations from Rastra Bank and even from websites of various banks.

3.4 Data Processing and Presentation

The information or data obtained from different sources will be in raw form. From that information, direct, presentation is not possible. So it is necessary to process data and converts it into require form. After then only the data are presented for this study. This process is called data processing. For this study the required data are taken from the secondary sources (bank's publication) and presented. For presentation different figures and tables are used. Similarly graphical presentation is also made. So far as the computation is concerned, it has been done with the help of scientific calculator and computer software prog ram.

3.5 Tools for Data Analysis and Presentation

The analysis of data is done according to pattern of data available and felt necessity. This study requires more statistical tools rather than financial tools for analysis and presentation. So emphasis is given on statistical tools and some financial tools are also used to meet the objectives of the study.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

In this section, all the collected data are presented in the filtered form and are analyzed thoroughly. This is one of the major chapters of this study because it includes detail analysis and interpretation of data from which concrete result of Nepalese market can be obtained. In this chapter the relevant data and information necessary for the study are presented and analyzed keeping the objectives set in mind. This chapter consists of various calculations made for the analysis of interest rate and its effects on deposit and lending amount of sample banks. This chapter consists of detail analysis and interpretation of data relating to interest rate on deposit and lending of each selected organization from Nepalese financial system. This chapter is categorized into three parts as presentation, analysis and interpretation to make our study effective and precise. The analysis is based on secondary and primary data. In presentation section data are presented in terms of table, graph chart of figures as need for the study. The presented data are analyzed using different statistical tools and at last the results of analysis are interpreted. The relationship between interest rate and lending amount is made.

4.1 Deposit Position of NABIL and HBL

General public deposits money in bank for different periods of time. The interest differs according to the time duration. The more the time of deposition, the more interest they get. For example, deposit made on current account bears no rate of interest whereas deposit made on saving and fixed accounts get higher interest rates. Deposit is the amount which is kept by savers in commercial banks and other financial intuitions for safe keeping with no obligation, to earn interest from it.

Deposits are the main sources of resources to meet growing demands of financial existence. The existence of commercial banks basically depends upon the mobilization of deposits. It is important that commercial bank's deposit policy is the essential policy for its existence. The growth of bank depends primarily upon

the growth of its deposit. The commercial banks may function well when they have enough deposit. Higher the volume of deposit, higher will be the volume of lending and investment which again creates higher volume of profit.

There is a great need of such deposit in developing countries. Banks being the intermediate accepts this sort of money and helps to channelize this in productive sector. So the importance of banks and financial intermediaries is higher too and so NABIL and HBL also try to mobilize as much as possible deposit to earn more profit. The following figure shows the both banks deposit position.

Table 4.1

Deposit Position of NABIL and HBL

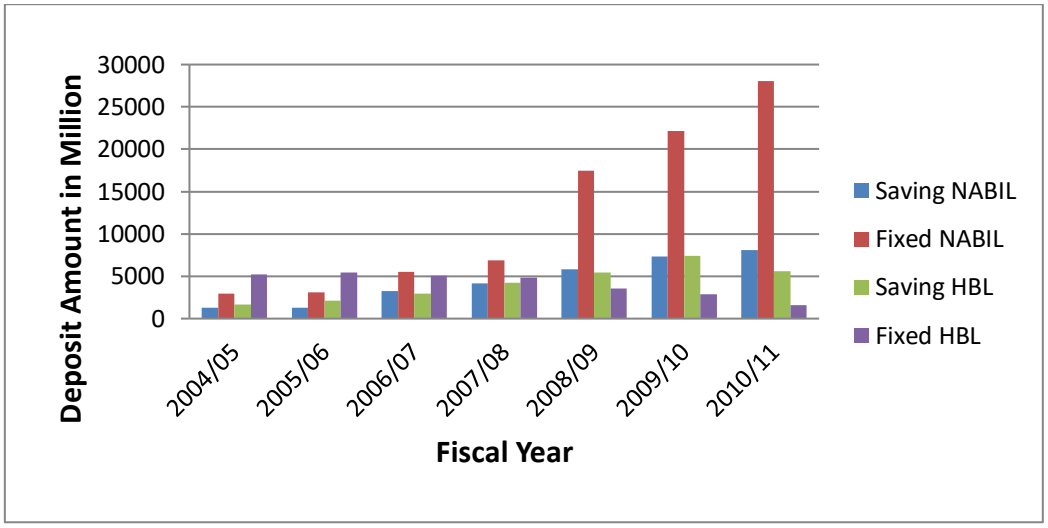
(Rs in Million)

Deposit position of NABIL					**Deposit position of HBL**			
Year	Saving	Fixed	Total	%	Saving	Fixed	Total	%
2004/05	1259.5	2929.4	4188.9	-	1694.9	5236.8	6931.7	-
2005/06	1274.7	3132.7	4407.4	5.3	2086.9	5453.6	7540.5	8.8
2006/07	3274.6	5517.4	8792	99.4	2913.6	5031.6	7945.2	5.4
2007/08	4171.1	6854.8	11025.9	25.5	4225.9	4875.7	9101.6	14.6
2008/09	5822.2	17438.4	23260.6	110.9	5475.2	3536.6	9011.8	(0.99)
2009/10	7348.9	22148.9	29497.8	26.8	7414.8	2887.0	10301.8	14.4
2010/11	8079.2	28013.3	36092.5	22.4	5582.9	1578.1	7161	(30.5)

Sources: Banking and financial statistics: 2004/05-2010/11 & Annual Report

Figure 4.1

Deposit Position of NABIL & HBL



Above table 4.1 and figure 4.1 shows the deposit position of NABIL and HBL. The total deposit of NABIL in Rs.2004/05 is 4188.9 it becomes Rs.4407.4 in 2005/06 when it is increased by 5.3%. As so total deposit of NABIL is Rs.8792, Rs.11025.9, Rs.23260.6, Rs.29497.8, Rs.36092.5 millions when the percentage is increase by 99.4%, 25.5%, 110.9%, 26.8% and 22.4% in fiscal year 2006/07, 2007/08, 2008/09, 2009/10 & 2010/11 respectively.

The total deposit of HBL in 2004/05 is Rs. 6931.7 million. During the next financial year, the deposit increased by Rs. 608.8 million i.e. 8.8% has been increased. So as the total deposit of HBL is Rs 7945.2, Rs. 9101.6, Rs 9011.8, Rs 10301.8 and Rs. 7161 million on 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 Respectively when percentage change is 5.4%, 14.6%, (0.99)%, 14.4%, & (30.5)% respectively.

4.2 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.

4.2.1 NABIL Bank Limited

The interest rate structure for NABIL on saving and fixed deposits for past seven FY's is presented on table below.

Table 4.2

Interest Rate Structure on Deposit of NABIL

Deposits	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Saving	5.25	5.25	6	6	6.25	6.5	6.75
Fixed							
7 days	-	-	-	-	-	-	-
14 days	-	2.5	2.5	2.5	-	-	-
1 month	-	3	3	3.25	3.75	3.75	4
2 months	-	-	-	-	-	-	
3 months	4	4	4	4.25	4.25	4.5	5
6 months	5	5	5.5	5.75	6	6.25	6.5
1 year	6.5	6.5	6.5	6.75	7	7.25	7.5
2 yrs/above	7.5	7.5	7.75	8	8	8.25	8.5
Mean	5.65	4.82	5.04	5.21	5.88	6.08	6.38
Fixed deposit mean	5.75	4.75	4.88	5.08	5.80	6	6.30
Std. deviation of mean	0.575%						

Sources: Banking and financial statistics: 2004/05-2010/11

The table above shows the interest rate structure of NABIL with average interest rate on all deposits and standard deviation. The average interest rate has decreased from FY 2004/05 to 2005/06 and increased 2006/07 up to 20010/11. The average

fixed deposit rate is decreasing 2004/05 to 2006/07 and then it is increasing up to 2010/11 and standard deviation of mean is 0.575% within seven years period.

Correlation coefficient, coefficient of determination and t- statistics of NABIL

Table 4.3

Relationship between Interest Rate and Deposit of NABIL (Rs in million)

Year (1)	Saving Deposit Interest Rate (2)	Saving Deposit Amount (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amount(5)
2004/05	5.25	1259.5	5.75	2929.4
2005/06	5.25	1274.7	4.75	3132.7
2006/07	6	3274.6	4.88	5517.4
2007/08	6	4171.1	5.08	6854.8
2008/09	6.25	5822.2	5.80	17438.4
2009/10	6.5	7348.9	6	22148.9
2010/11	6.75	8079.2	6.30	28013.3
Correlation	r_{23}= 0.977		r_{45}= 0.822	
Coeff. of Deter.	r^2_{23}= 0.955		r^2_{45}=0.676	
t-statistic	t-cal=0.005	t-tab=2.179	t-cal=0.019	t-tab=2.179
	Insignificant		Insignificant	

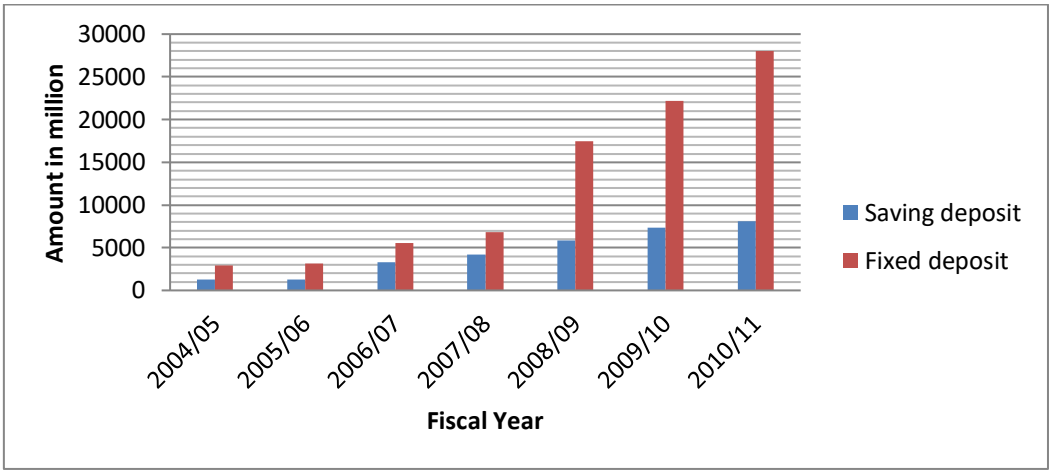
Source: Banking and financial statistics: 2004/05-2010/11 & Annex II and III

In table above saving amount and deposit rates are arranged is systematic order. The outlook of the table shows that the interest rate has seen falling in f/y 2004/05 to 2006/07 on fixed deposit but after that it is little bit increasing trend in all year. The saving deposit amount is in increasing trend. The saving amount has increased where interest rates also increasing But fixed deposit amount is in increasing trend either interest rate is falls or increase. To determine the magnitude of relation, correlation coefficient should be calculated and to identify the strength or

weakness of relationship it is necessary to calculate the test. But prior to clear all these relations the figure is presented.

Figure 4.2

Deposit Amount of NABIL during different FYS



The correlation coefficient for saving interest rate and saving deposit amount is found positive. This value indicates that they have very high positive relationship. Increase in one variables lead to increase in other variables. Similarly, the coefficient of determination between two variables, r^2_{23} is 0.955, which means that total variations in interest rate on deposit has been explained by supply of deposits to the extent of 95.5%. The t- value for testing the significance of the correlation coefficient between variables is 0.005 which is significantly level of significance with 5 degree of freedom. This means that the rate of saving deposit amount of NABIL are insignificantly correlated.

Similarly, correlation coefficient for fixed deposit interest and fixed deposit amount is 0.822, which indicates that the two variables have positive relationship. This relation can be clearly explained by the coefficient of determination which is 0.676, means that total variation in interest rate on fixed deposit has been explained by the supply of deposits to the extent of 67.6 percent. 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 0.019. Similarly the tabulated value for t is 2.179 which is greater than calculated value. As a result null

hypothesis is accepted. Test of significance of correlation coefficient between fixed deposit rate and fixed deposit amount of NABIL makes clear that the variables are statistically insignificant.

4.2.2 Himalayan Bank Limited (HBL)

The interest rate structure for HBL on saving and fixed deposits for past seven FY's is presented on table below.

Table 4.4

Interest Rate Structure on Deposit of HBL

Deposits	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Saving	5	5.5	5.75	6	6.5	6.5	7
Fixed							
7 days	-	-	-	-	-	-	-
14 days	-	-	-	-	-	-	-
1 month	4	3.5	3.5	3.5	3.5	3.5	4
2 months	-	-	-	-	-	-	
3-6 months	5	5.5	5.5	6	6	6.5	7
6-12 months	5.5	6	6.5	7	7.5	8	9.5
1 year	7	8	8.5	9	9	9.5	10.5
2 yrs/above	7.75	8.5	9	9.5	10	10.5	11
Mean	5.71	6.17	6.46	6.83	7.08	7.42	8.17
Fixed deposit mean	5.85	6.30	6.6	7	7.20	7.60	8.40
Std. deviation of mean	0.820%						

Sources: Banking and financial statistics: 2004/05-2010/11 and Annual Report

The above table portrays the interest rate of HBL on saving deposit and fixed deposits. All the interest rate on deposit is on increasing trend. The average interest rate for both saving and fixed account is on similar trend. They are fluctuating by

increasing units. The deviation is measured by standard deviation which is 0.820% of each year interest rate.

Correlation coefficient, coefficient of determination and t- statistics of HBL

Table 4.5

Relationship between Interest Rate and Deposit of HBL (Rs in million)

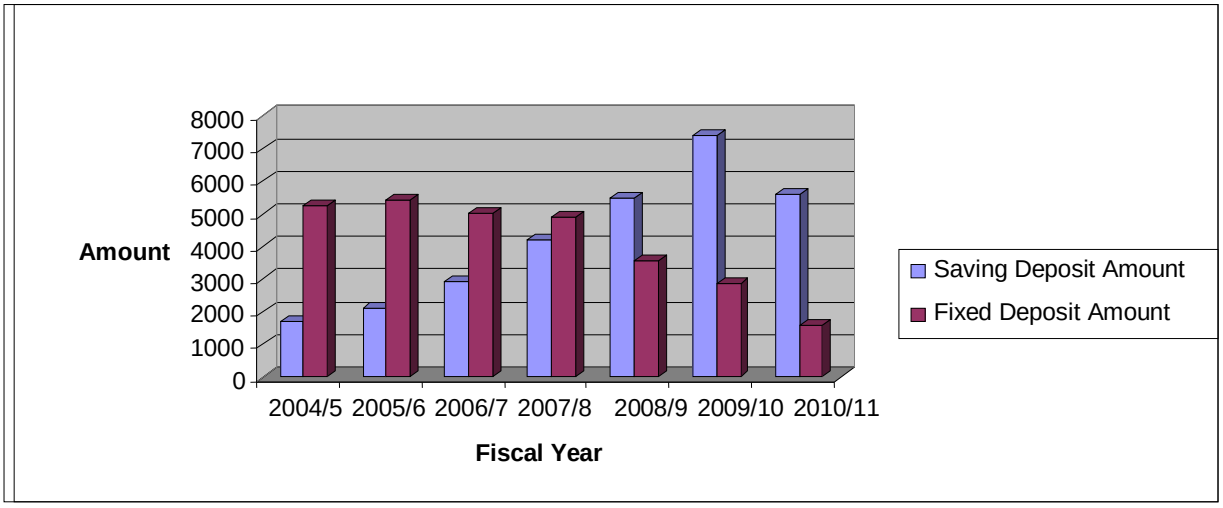
Year (1)	Saving Deposit Interest Rate (2)	Saving Deposit Amount (3)	Fixed Deposit Interest Rate (4)	Fixed Deposit Amount(5)
2004/05	5	1694.9	5.85	5236.8
2005/06	5.5	2086.9	6.30	5453.6
2006/07	5.75	2913.6	6.60	5031.6
2007/08	6	4225.9	7	4875.7
2008/09	6.5	5475.2	7.20	3536.6
2009/10	6.5	7414.8	7.60	2887.0
2010/11	7	5582.9	8.40	1578.1
Correlation	r_{23}= 0.875		r_{45}= -0.942	
Coeff. of Deter.	r^2_{23}= 0.766		r^2_{45}=0.888	
t-statistic	t-cal=0.002	t-tab=2.179	t-cal=0.0003	t-tab=2.179
	insignificant		insignificant	

Source: Banking and financial statistics: 2004/05-2010/11

The above table shows saving deposit amount is in increasing trend though the interest rate is also in increasing trend. Fixed deposit amount seems increasing till FY 2005/06 and decreasing afterwards. It means interest rate and deposit amount have inverse relationship. To get the exact relation the correlation coefficient and t- test is calculated.

Figure 4.3

Deposit Amount of HBL during different FYS (Rs. in million)



The value for correlation between saving deposit and interest rate is 0.875. This is high degree of positive correlation. It means during the seven fiscal years there was increase in saving deposit amount and saving interest rates. The coefficient of determination is 0.766. The calculated value for t is 0.002 for saving account which is less than t- tab value hence null hypothesis is accepted. It means there is insignificant relationship between two variables.

Similarly, fixed deposit value of correlation coefficient is r_{45} = -0.942 which indicates that two variables have negatively relationship. And the calculated value at t is 0.0003 and tabulated t is 2.179. It means t-tab grate then t-cal so null hypothesis is accepted. It means correlation coefficient is insignificant. This analysis shows that substitution effect is applicable for bank.

4.3 Analysis of Lending and Interest Rate

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

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

4.3.1 NABIL Bank Limited

The sector where NABIL granted its credit during last seven FYs and their corresponding interest rate, average interest rate and lending amount are presented in the table below.

Table 4.6

Lending Rate of NABIL on different sectors during seven FYs

Sector	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Overdraft	14.5	14	13.5	12.5	12.5	12.5	11
Export credit	11	11	11	10.5	10.5	10.5	9
Import LC	13	13.5	13	-	-	-	-
HMG Bond	9.5	9	9	7	7	7	7
BG/CG	11	9.5	9.5	9.5	9.5	9.5	9.5
Other Guarantee	-	-	-	-	-	-	-
Industrial Loan	13.5	14	13.5	-	-	-	-
Commercial Loan	14.5	14	13.5	13.5	-	-	-
Priority Sector Loan	14	12.5	12.5	12	12	12	11
Poorer Sector Loan	10	9	9	9	9	9	9

Term Loan	14.5	14	14	12.5	12.5	12.5	11
Working Capital	11.5	-	-	-	-	-	-
Hire Purchase	-	13.5	12.5	10.5	10.5	10.5	9.5
Others	14.5	14	13.5	12.5	12.5	12.5	11
Average Int. Rate (1)	12.63	12.33	12.04	10.95	10.67	10.67	9.78
Leading Amount (2)	10550	11385.7	12119.9	15202.5	28417.9	33786.1	40276.7
Correlation (r_{12})	-0.9125						
Coeff. Of det. (r^2_{12})	0.833						
t-statistics	t-cal= 0.00341	t-tab= 2.179	insignificance				
Std. deviation of mean	1.050%						

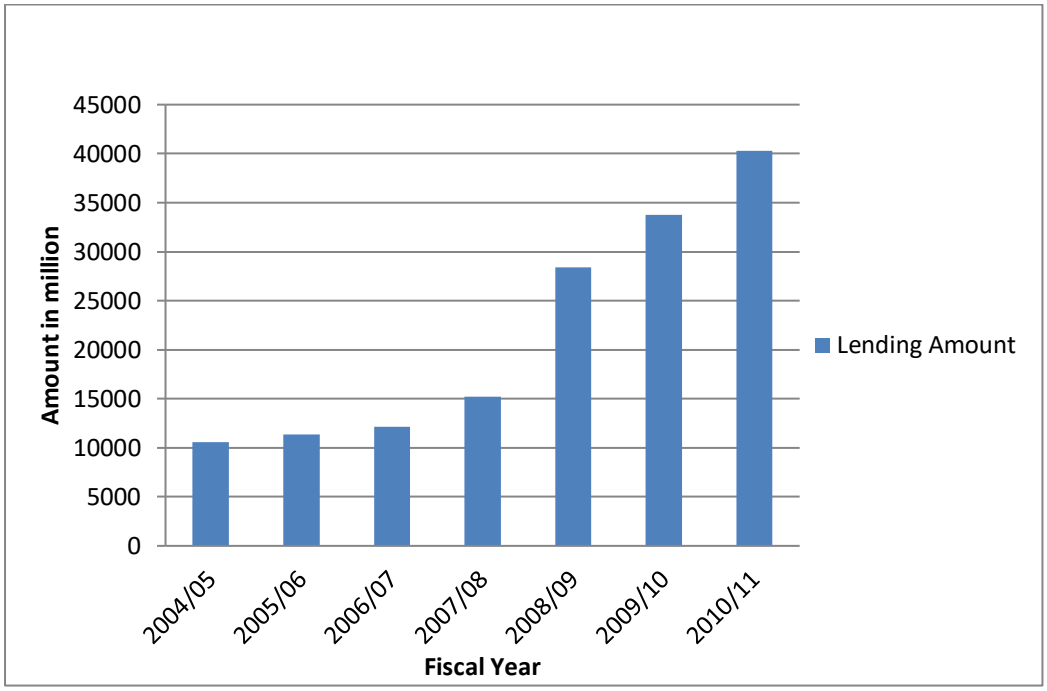
Source: Banking and financial statistics: 2004/05-2010/11 and Annex III

The above table shows that the interest rate of NABIL on lending on seven fiscal years granted in different sectors. The average interest rate declined slowly during seven fiscal years. The interest rate falls only in decimal up to FY 2006/07. After then the interest rate falls with huge magnitude on FY 2007/08 then again interest rate falls smoothly with less magnitude. The lending rate in all the sectors of at NABIL falls slowly during seven FYs. The lending rate is higher in "others" sector in comparison to other sectors. So it can be said that the interest rate is declined with almost same magnitude in both productive and non productive sector loan. With rhythm to lending interest rate, the study of lending amount shows that it is in increasing trend. The lending amount of NABIL is 4176.3 on FY 2004/05 but it becomes 9847 on FY 2010/11 which is more two times. But to know the exact

relationship it is necessary to compute the correlation coefficient. And it is presented on the figure 4.4.

Figure 4.4

Lending Amount of NABIL during different FYs



Correlation coefficient, coefficient of determination and t-statistics of NABIL

The correlation coefficient of NABIL between lending amount and lending rate is high degree negative correlation. It indicates that increment in one variables result the decrement in other variables or vice-versa. In this case decrease in lending interest rate increases the lending amount. People preferred more credit from the NABIL when bank reduced the lending interest rate. Similarly the coefficient of determination between two variables (r2 12) = 0.833. It means that the relationship between dependent variable and independent variables is defined up to the extent of 83.33%. In other words the increase in lending amount by decrease in interest rate is defined up to the extent of 83.33 where as remaining percentage is due to other factors.

Similarly the t-statistics for NABIL is 0.00341 (t-cal=0.00341). The tabulated value at 5 level of significance with 5 d.f is 2.179. Comparing the t-tab and t-cal, it

is clear that t-cal is less than t-tab, so null hypothesis is accepted and alternative hypothesis is rejected. It means that the relation shown by correlation coefficient is highly insignificant.. The increase in demand of lending amount is due to decrease in lending rate. Therefore according to t-statistics the lending rate is also another strong as well as important factor that shape the lending amount. In other words two variables are significantly correlated or the increase in landing amount is due to the decrease in lending rate.

4.3.2 Himalayan Bank Limited

The sector where HBL granted its credit during last seven FYs and their corresponding interest rate, average interest rate and lending amount are presented in following table.

Table 4.7

Lending Rates of HBL on different sectors during seven FYs

Sector	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Overdraft	15	14.5	14	13	-	-	-
Export credit	12	11.75	11.75	10.5	9.5	9.5	9.5
Import LC	-	-	-	-	-	-	-
HMG Bond	9	9	9	8.5	7.5	7.5	7.5
BG/CG	13	13	13	12	8	8	8
Other Guarantee	-	-	-	-	-	-	-
Industrial Loan	14.5	14	14	-	12	12	12
Commercial Loan	15	14.5	14	-	9.5	9.5	9.5
Priority Sector Loan	13	13	13	11	10	10	10
Poorer Sector Loan	12	12	12	10	9.5	9.5	9.5
Term Loan	14	14	13.5	12	-	-	-
Working Capital	-	-	-	-	-	-	-
Hire Purchase	14.5	14.5	14	12.5	9.5	9.5	9.5

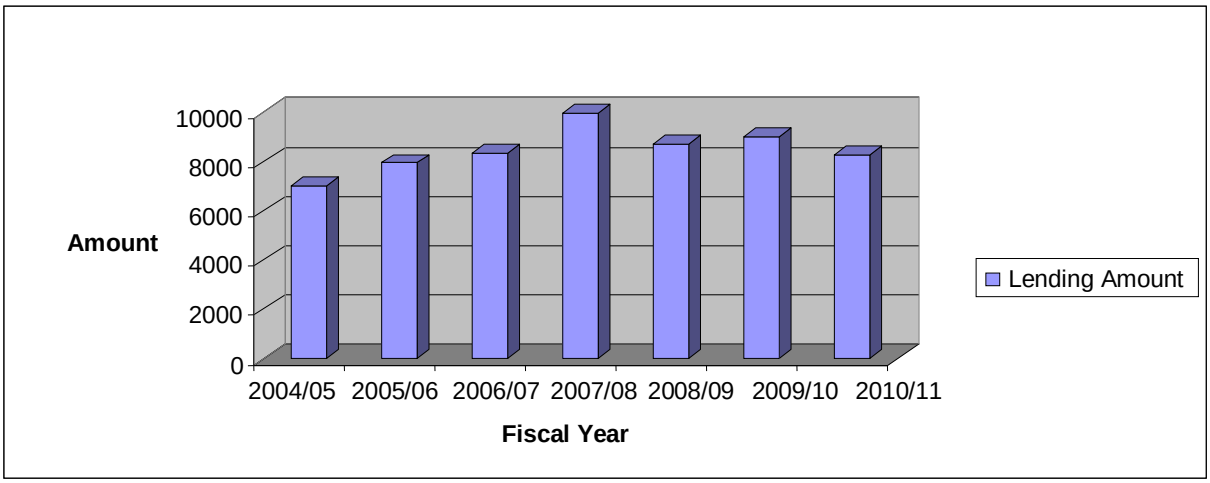
Others	15	14.5	14	13	10.5	10.5	10.5
Average Int. Rate (1)	13.36	13.16	12.93	11.39	9.56	9.56	9.56
Leading Amount (2)	7022	7969	8363	9996	10052	11071	11928
Correlation (r_{12})	-0.511						
Coeff. Of det. (r^2_{12})	0.262						
t-statistics	t-cal= 1.379		t-tab= 2.179			insignificance	
Standard deviation	1.802%						

Source: Banking and financial statistics: 2004/05-2010/11

The above table shows that lending interest rate structure of HBL on seven FYs on different sectors. From table it is clear that the interest rates of HBL are falling stage. The average interest rate is declining slowly during the seven FYs. This phenomenon can be seen clearly with the study of average interest rate. The average interest rate for FYs 2004/05, 2005/06, 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 are 13.36, 13.16, 12.93, 11.39, 9.56, 9.56 and 9.56 respectively. The average interest rate shows that the rate has fallen at steady rate. In this bank, lending interest of non-productive loan falls more than leading interest rate on productive sector loan in the same manner for lending amount the lending of HBL increased each year but this amount is slowly decreased after FY 2008/09. During the last FY the lending amount rises. But the lending amount has significantly reduced to 8740 from 9996.00 on FY 2008/09. This shows that the lending amount and interest rate have negative relationship but to get the exact numerical result of relationship completion should be necessary to calculate. The figure for changing trend of interest amount and lending rate is given bellow.

Figure 4.5

Lending Amount of HBL during different FYs



Correlation coefficient, Coefficient of determination and t-statistics of HBL

From table 4.7 the correlation coefficient between the lending amount and lending rate r12 is -0.511. According to our classification this negative correlation is of "moderate degree" .In this case it is clear that interest rate on lending and lending amount has inverse relationship i.e. increase in lending rate results decrease in total lending amount. According to the theoretical concept of lending rate and lending amount people prefer more money when the market interest rate is low in the market.

Test of significance of correlation coefficient between the lending rate and lending amount verify the fact. The calculated value of t-statistics is 1.379 and t-tabulate value is 2.179 with 5 degree level of significance. Since tabulated value is greater than calculated value Ho is accepted. It means there is no significant co-relation between two variables. From this it is clear that the increase in lending amount is not significantly correlated due to decrease in lending interest rate.

4.4 Presentation and analysis of Primary Data

In this section primary data is analyzed. The primary data are collected in order to find out various aspects of interest rate on deposit and lending of commercial bank in Nepal from the real life experience. A total of twenty sets of same questionnaire are distributed to the executives, employee and other personals of the sample banks. The responses received from these respondents have been arranged, tabulated and presented in order to facilitate the descriptive analysis of this study. Those people related to the field of banking are familiar about the interest rate and it's affecting factors.

The questionnaire either asked for a yes/ no response or asked for ranking of choices according to number of alternative where first choice is most important and last choice was least important. If the number of alternatives were four then the first preferred choice got four points and the last preferred choice got one point. Any alternatives, which were not ranked, did not get any point. The total points available to each choice were converted into percentages in reference to the total points available to each choice. The choice with the highest score of percentage is ranked as the most important choice and one with the lowest percentage being ranked as least choice. The survey is done on the following.

Question No 1. Is Present Condition of Joint Venture Banks in Financial Market is good?

The first question is related about the present condition of joint venture banks in Nepalese financial market. The view points of the different respondent are presented in figure below.

Table: 4.8

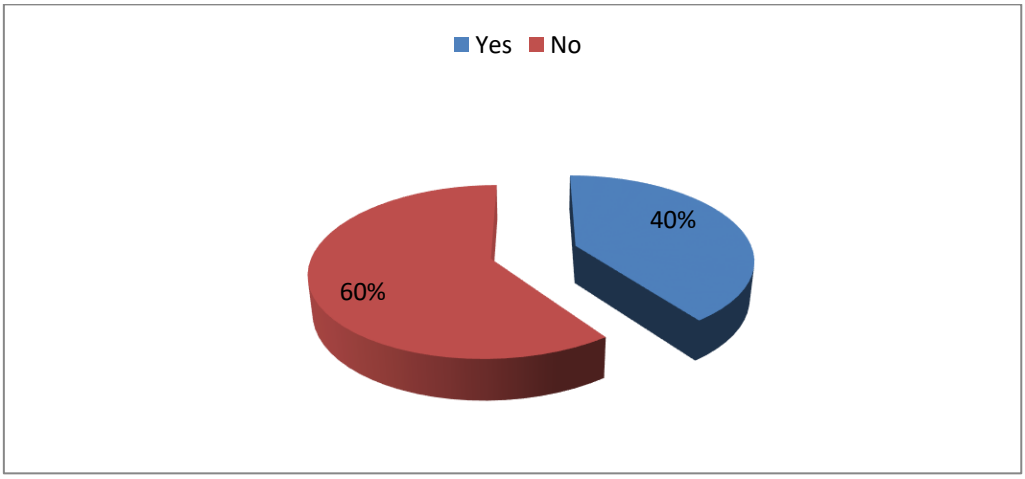
Present Condition of Joint Venture Banks in Financial Market

Response	Yes		No		Total	
	No.	%	No.	%	No.	%
Respondents	8	40	12	60	20	100

Source: Opinion survey, 2069.

Figure 4.6

Percentage of Respondents



The above table figure shows the present condition of joint venture Banks in Nepalese Financial Market. 40% of the respondents agree that joint venture banks are in good condition, 60% of the respondents believe that the condition of banks is satisfactory. Satisfactory condition indicates that the condition may go up or down and the economy of the country is worsening day by day so the attention must be given.

Question No 2. Interest rate structure of the banks is appropriate to attract the investor and depositors?

This question is related to the interest rate structure of the varies bank and wants to clear that it is suitable or mot for those inverters and depositors the view points of the different respondents are presented in figure below.

Table: 4.9

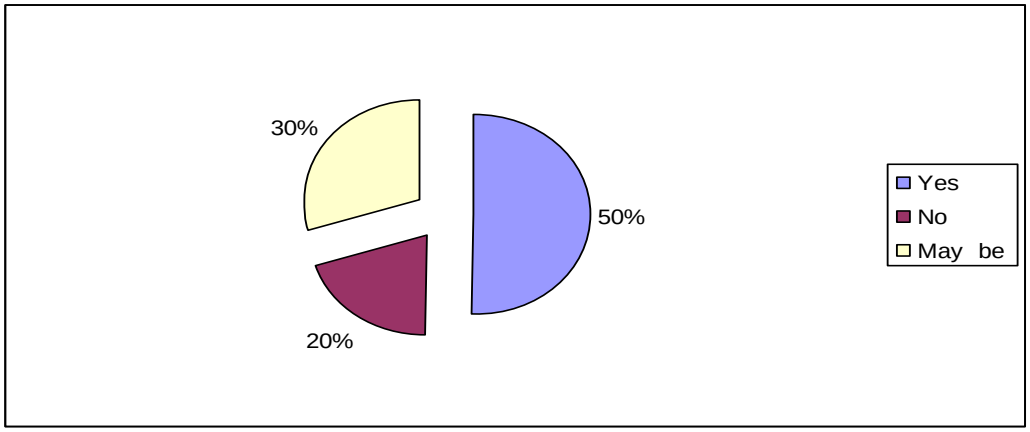
Interest Rate Structure of the Banks is Appropriate to Attract the Investor and Depositors

Response	Yes		No		May be		Total	
	No.	%	No.	%	No.	%	No.	%
Respondents	10	50	4	20	6	30	20	100

Source: Opinion survey, 2069.

Figure 4.7

Percentage of Respondents



The above figure shows that the 50% of respondent agree that the interest rate structure is appropriate to attract the investors and depositors. 30% of respondent are not confirmed and 20% do not agree. From this it is clear that most of the respondents think that interest rate structure is not appropriate so banks should think about it.

Question No 3. There is high lending rate in non-productive sector rather than productive sector?

The question wants to be clear about the high interest rate that is being charged on non-production sector. The view points of the different respondents are presented in the figure below.

Table: 4.10

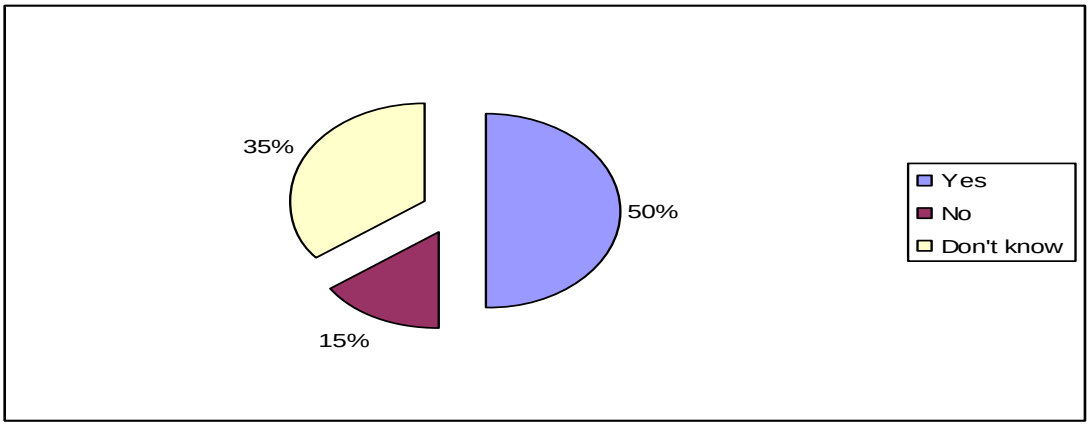
High Lending Rate in Non-Productive Sector Rather than Productive Sector.

Response	Yes		No		Don't know		Total	
	No.	%	No.	%	No.	%	No.	%
Respondents	10	50	3	15	7	35	20	100

Source: Opinion survey, 2069.

Figure 4.8

Percentage of Respondents



The above figure shows that 50% of the respondents agree that the lending rate is high on non-productive sectors. But 15% do not agree and remaining 35% are unknown about the high lending rate charged on non-productive sectors. There should be low interest rate on productive sector so that people can use more funds from banks on productive sectors which ultimately leads nation towards success.

Question No 4. People are feeling safe to deposit their saving on the banks?

This question tries to find out the feeling of people to deposit their saving on the banks. The viewpoints of the different respondents are presented in the figure below.

Table: 4.11

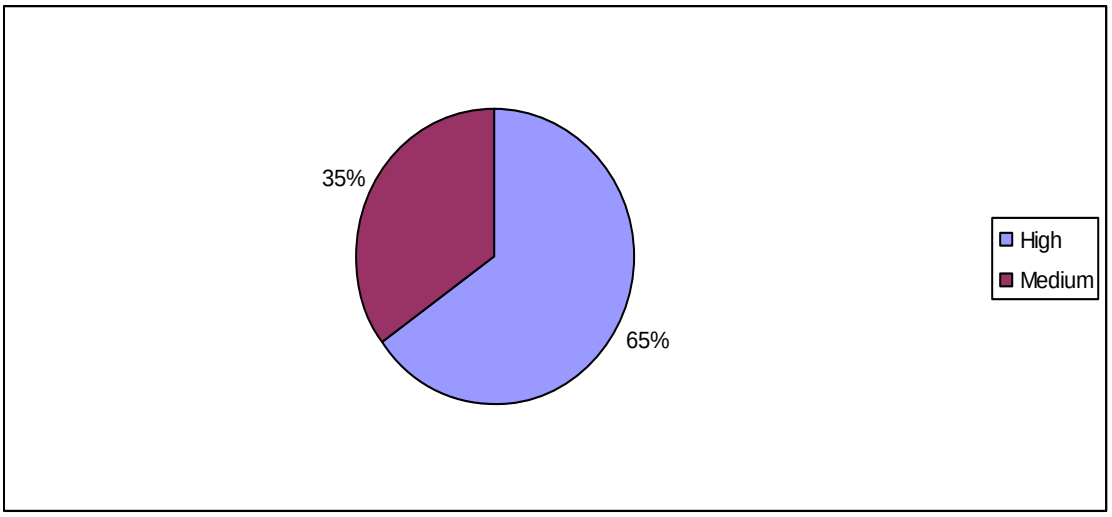
People are Feeling Safe to Deposit their Saving on the Bank

Response	High		Medium		Total	
	No.	%	No.	%	No.	%
Respondents	13	65	7	35	20	100

Source: Opinion survey, 2069.

Figure 4.9

Percentage of Respondents



The above figure shows that 65% of the respondents are feeling highly comfortable and safe to deposit their saving on the banks. And 35% are moderately feeling comfortable and safe to deposit their saving on the banks.

Question No 5. Interest rate on deposit and lending of the banks is effective in Nepalese financial market?

The question tries to know effectiveness of interest rate on deposit and lending of the banks in Nepalese Financial Market. The result obtained from different respondents is presented below.

Table: 4.12

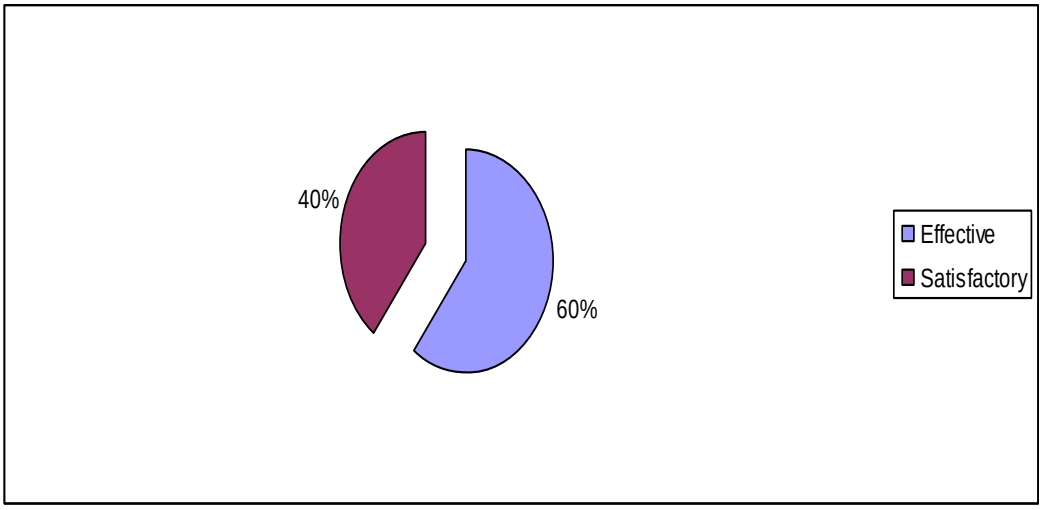
Interest Rate on Deposit and Lending of the Banks is Effective in Nepalese Financial Market

Response	Effective		Satisfactory		Total	
	No.	%	No.	%	No.	%
Respondents	12	60	8	40	20	100

Source: Opinion survey, 2069.

Figure 4.10

Percentage of Respondents



The above shows that only 40% of the respondents agree that interest rate on deposit and lending of the banks is effective in Nepalese financial market. Even 60% think that it is satisfactory in present contest.

Question No 6. Deposit on saving deposit scheme is effective than fix deposit scheme?

This question wants to find out that do people like to deposit on saving deposit than fix deposit? Here is what our respondents have replied.

Table: 4.13

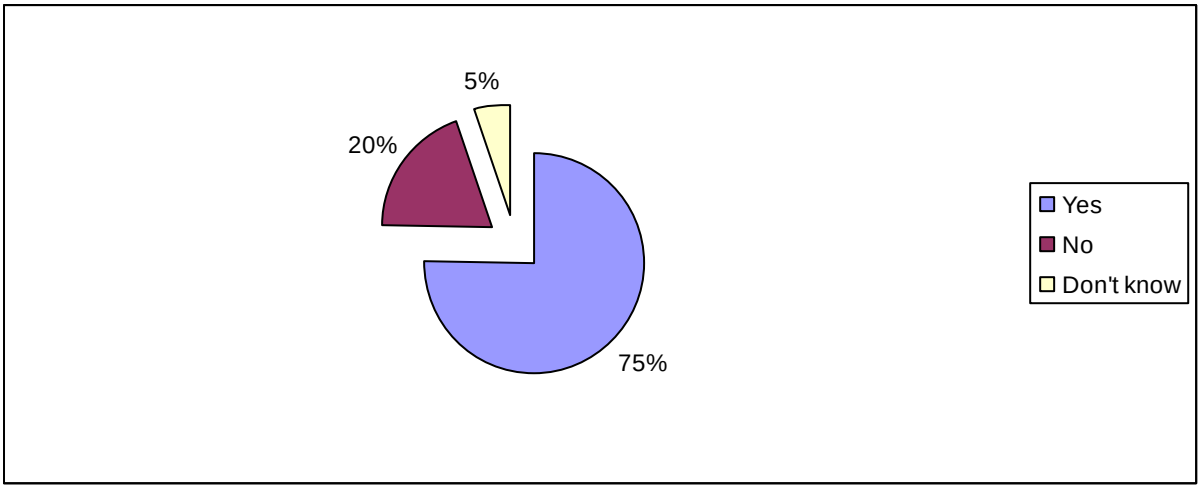
Deposit on Saving Deposit Scheme is Effective than Fix Deposit Scheme

Response	Yes		No		Don't know		Total	
	No.	%	No.	%	No.	%	No.	%
Respondents	15	75	4	20	1	5	20	100

Source: Opinion survey, 2069.

Figure 4.11

Percentage of Respondents



The above figure shows that 75% of the respondents agree that people like to deposit on saving scheme. 20% of the respondents don't agree to the statement and 5% is unknown to this. This may because the interest provided by banks on fix deposit id decreasing day by day. And people want to keep their saving in saving deposit due to its feasibility.

Question No 7. Open borders with India affect the interest rate in borrowing and lending?

This question wants to find out that to what extent open boarder with India affect the interest rate on borrowing and lending? The figure shows what the respondents have said.

Table: 4.14

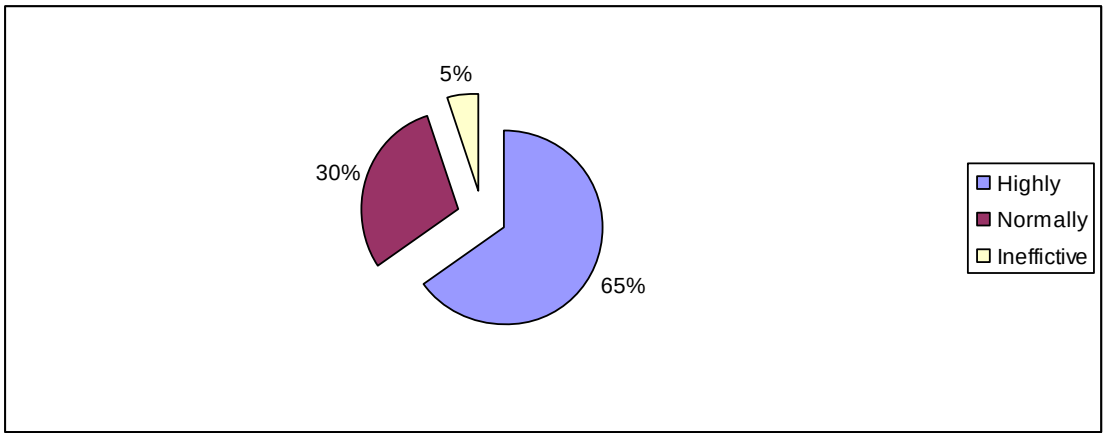
Open Borders with India affect the Interest Rate in Borrowing and Lending

Response	Highly		Normally		Ineffective		Total	
	No.	%	No.	%	No.	%	No.	%
Respondents	13	65	6	30	1	5	20	100

Source: Opinion survey, 2069.

Figure 4.12

Percentage of Respondents



The above figure shows that 65% of the respondent is highly effective that open boarder with India affect the interest rate on borrowing and lending. But 30% of the respondent normally affect and 5% of the respondent do not agree upon the assumption .It may suggest that open boarder with India somewhat affect the interest rate on borrowing and lending.

Question No 8. People deposits more or withdraw in the situation of violence and insecurity?

This question wants to clear that what the people do about their cash in the situation of violence and insecurity. The result is presented in given figure.

Table: 4.15

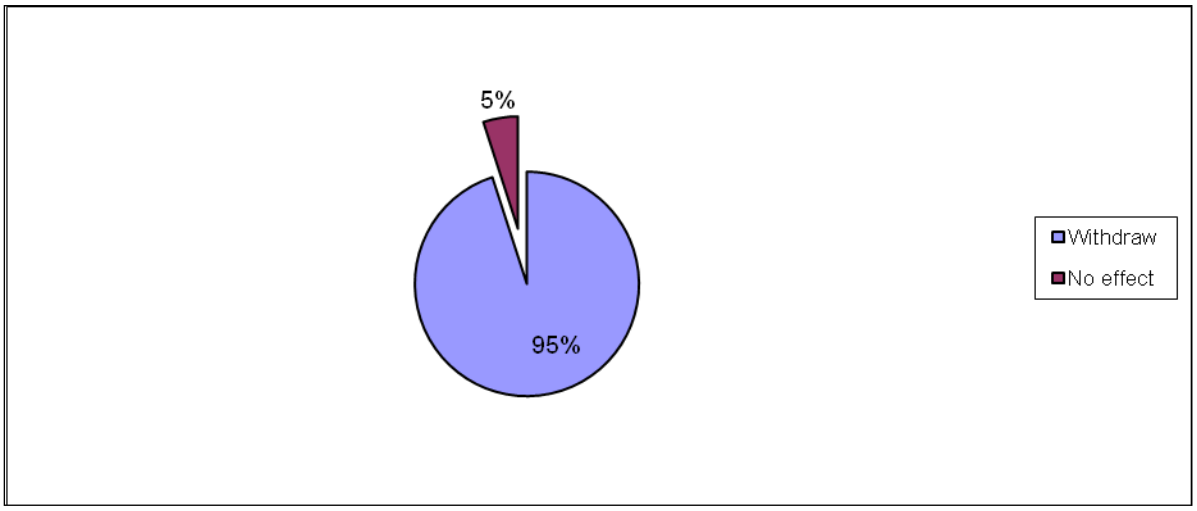
People Deposits more or with Draw in the Situation of Violence and Insecurity

Response	Withdraw		No effect		Total	
	No.	%	No.	%	No.	%
Respondents	19	95	1	5	20	100

Source: Opinion survey, 2069.

Figure 4.13

Percentage of Respondents



The above figure shows that none of the respondents agree that people deposits more in the situation of violence and insecurity. 95% of the respondents withdraw more in the situation of violence and insecurity and 5% have replied that there will no effects at all. From this it is clear that people feels unsafe to deposit their saving on the bank in the situation of violence and insecurity.

Question No 9. Rules and regulation of Nepal Rastra Bank affect the banking and financial sectors?

This question tries to know how Nepal Rastra Bank is functioning to regulate Nepalese Commercial Bank. The result obtained from different reasons is presented below.

Table: 4.16

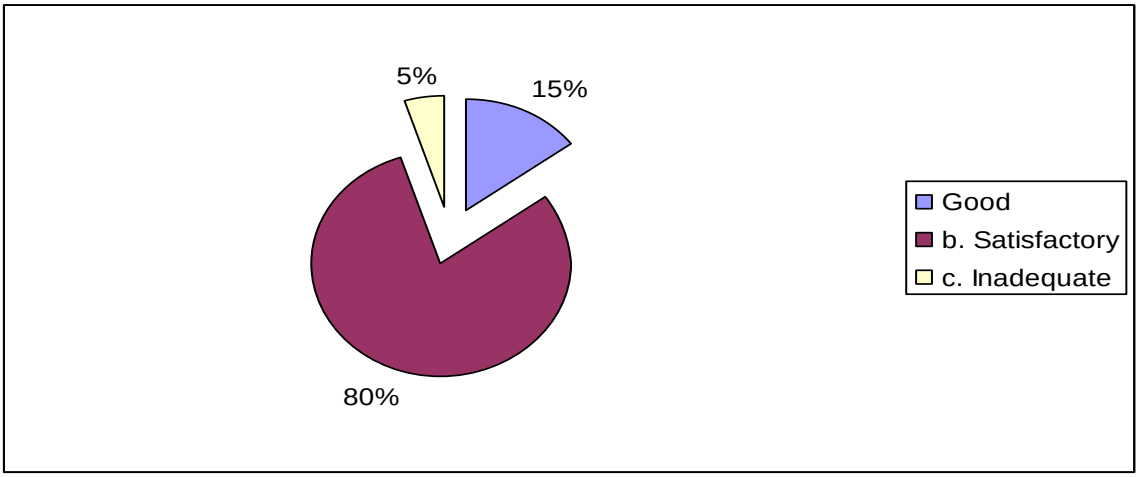
Rules and Regulation of Nepal Rastra Bank Affect the Banking and Financial Sectors

Response	Good		Satisfactory		Inadequate		Total	
	No.	%	No.	%	No.	%	No.	%
Respondents	3	15	16	80	1	5	20	100

Source: Opinion survey, 2069.

Figure 4.14

Percentage of Respondents



The above figure shows that only 15% of the respondents agree that Nepal Rastra bank functioning well. About 80% finds the role to be satisfactory. And 5% hoping banks function to be inadequate.

Question No 10. Reasons that banks aren't properly utilizing the deposits in terms of loans to generate profit?

This question wants to clear that why banks are not properly utilizing their deposit in terms of loans to generate profit. There may be several reasons but according to priority only three options are mentioned. The result obtained from different persons is presented below.

Table: 4.17

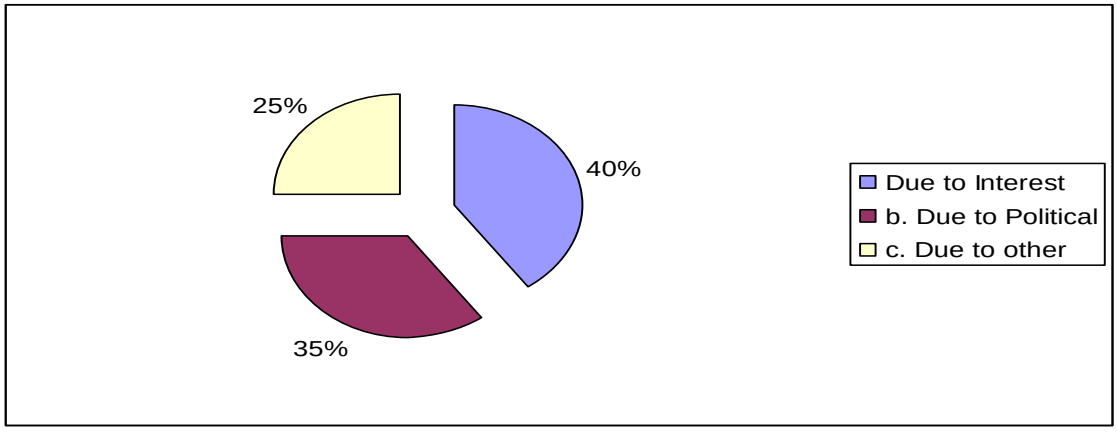
Reasons that Banks aren't Properly Utilizing the Deposits in terms of Loans to Generate Profit

Response	Due to Interest		Due to Politics		Due to Other		Total	
	No.	%	No.	%	No.	%	No.	%
Respondents	8	40	7	35	5	25	20	100

Source: Opinion survey, 2069.

Figure 4.15

Percentage of Respondents



The above figure shows that only 40% of the respondent think that interest rate is one cause that the banks to utilize the deposits. About 35% of respondents agree that political situation is the main barrier for utilizing the loan and remaining 25% think due to other several factors. From this it is clear that political situation may hamper the banks to function well.

Question No 11. Joint venture banks are playing important role in economical development of the country?

This question wants to find out the role of joint venture banks as in economical development of the country. The figure shows what the respondents have said.

Table: 4.18

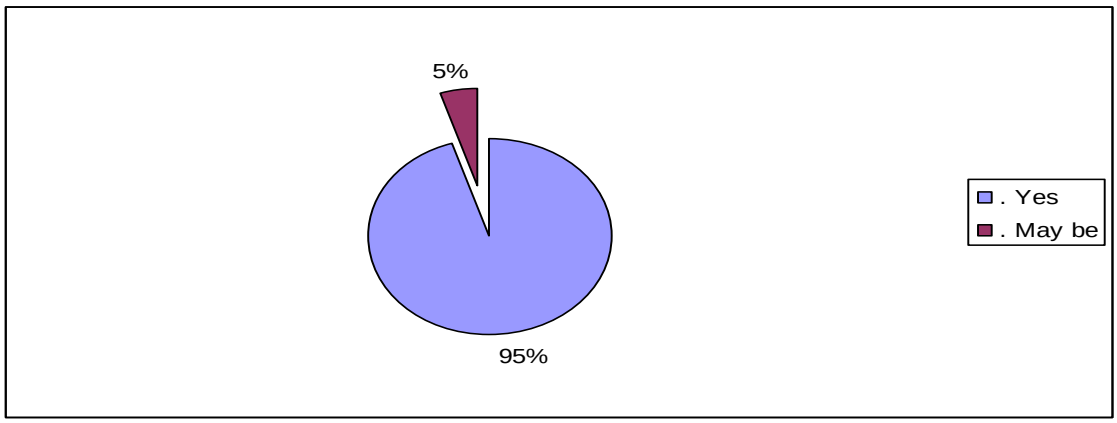
Joint Venture Banks are Playing Important Rate in Economical Development of the Country

Response	Yes		May be		Total	
	No.	%	No.	%	No.	%
Respondents	19	95	1	5	20	100

Source: Opinion survey, 2069.

Figure 4.16

Percentage of Respondents



The above figure shows that about 95% of the respondents agree that joint venture banks are playing important role in economic development of the country. No one disagree with the statement and 5% think that they may be playing important role in economic development of the country.

4.5 Major findings of this study

For this study, the seven years data have been considered. The analysis has been done according to the nature and quality of the available data. Some simple financial as well as statistical tools have been used to reveal the entire position of deposit and lending of NABIL and HBL.

- In the analysis of deposit position of NABIL, it is observed that deposit position percentage change is high in the financial year 2006/07 and 2008/9

is 99.4% & 110.9% respectively and in 2005/06 it is 5.3% change which is lowest.

- In the analysis of deposit position of HBL, it is observed that deposit position percentage change is normal except in the financial year 2008/09 and 2010/11.
- The saving deposit amount and saving interest rate, fixed deposit amount and fixed deposit rates of NABIL is in increasing trend and have positive relationship of on it.
- NABIL Bank: Amount of saving deposit and interest rate on deposit is highly positive correlated. Similarly, amount of lending and interest rate is negatively correlated. Relation between interest amounts with saving deposit is insignificant and relation between interest amounts with fixed deposit is also insignificant. Both deposit rate and lending rate moved into same direction.
- Himalayan Bank Limited: Amount of saving deposit and interest rate on deposit is highly positively correlated but amount of fixed deposit and interest rate on deposit is negatively correlated. Amount of lending and interest rate is highly negatively correlated. Relation between interest amounts with saving deposit is insignificant and relation between interest amounts with fixed deposit is also insignificant.
- The t-statistic of both banks is insignificant which means that there is no relationship between lending rate and lending amount. So, increase in lending amount is not due to the decrease in lending interest rate and vice-versa, but due to the other reason.
- The fixed deposit interest rate of HBL is in fluctuation trend, but in increasing trend of NABIL for all year.

CHAPTER-V

SUMMERY, CONCLUSION AND RECOMMENDITION

This chapter is a last part of the research study which includes all the briefing of the whole study and extracts of all the previously discussed chapters. This chapter mainly consists of three parts summery, conclusion and recommendation. In summery portion revision of all four chapters are made viz. introduction, Literature Review, Research Methodology and Analysis of Data. Then conclusion is drawn following analysis part and comparing to the theoretical aspect and analysis. Conclusion part answers whether practically relates to theory. Based on conclusion necessary suggestions are presented in recommendation part i.e. various measures are recommended to concerned organization for the improvement of the current condition of interest rate structure.

5.1 Summary

After the liberalization policy various banks and financial institutions came into existence with a hope to play important role in the development of financial system of the country. Accepting deposit from savers and transferring the collected deposit to the investment sector is one of the major functions of the banking business. Banks are the real intermediaries who transfer saving to the needy investors does that certain percentage of interest when amount is loaned outside charging the certain percentage to them. Even though there are various factors in the economy that affects deposit amount and lending amount. Interest rate is one of the major economic indicators that effect deposit and lending amounts of the banks. With the curiosity to be clear about interest rate structure of commercial banks and to be clear about whether interest rate influences deposits and lending amount this study is made. With the major objectives of showing relationship between deposits rate and deposit amount, lending rate and lending amount this study is undertaken.

The review of literature shows that there are so many economic and non-economic factors that are on deposit and lending. But it is real fact that there is relationship of interest rate with deposit amount and lending amount. The volume of deposit amount and lending amount of banks are highly affected by their interest rate. Generally, there is positive relationship in between interest rate on deposit and deposit amount. That means, when interest rate on deposit increases that attract to deposit and deposit amount of banks are increases or vice versa. Similarly there is negative relationship in between interest rate on lending and lending amount of the banks. That means increase in the interest rate on lending, decreases the lending amounts of banks and vice versa. Various commercial banks and financial companies in Nepal are free to set their interest rate on deposit and lending so all banks are determined their interest rate as per their own policy purpose or objective. However interest rate fluctuates time with impact of economic and non-economic factors which in turn affect deposit amount and lending amount of the banks.

The effect of interest on deposit and lending amount and interest rate structure on deposit and lending are analyzed from two joint venture banks of Nepal for seven years period by using statistical and financial tools mentioned in chapter three. Secondary data are collected from NRB's economic reports, annual reports of related banks and websites and primary data are collected from the questionnaires distributed to various personal of sample banks. The analysis of all banks shows average interest rate on deposit is in decreasing and deposit amount is in increasing trend. Similarly interest rate on lending is also decreasing day by day. This trend shows, there is reverse relationship in between deposit rate and deposit amount, lending rate and lending amount of joint venture banks. The statistical analysis also shows that there is significant relationship between deposit rate and deposit amount and lending rate and lending amount of most joint venture banks except few.

5.2 Conclusion

Commercial banks are the backbone of modern day development of the financial system. The role of these banks is significant not only in mobilizing saving but also in making investments for the development of different sectors of the economy. They are playing very important role in reducing poverty and increasing employment opportunities in the country. So, the commercial banks are called as the backbone of the economic development. RBB has made a substantial contribution in setting up different institutions, for furthering the economic development of the country. Bank has promoted these institutions by injecting equity capital or by representation in management. Examples of such institution are Nepal Oil Corporation, Nepal Investment Bank Ltd. Nepal Housing and Finance Ltd., Gramin Development Bank in all 5-development regions etc.

Before the liberalization of the financial sector in 1984, there were only 2 commercial banks in operation. There wasn't much of competition during that period. Since, the liberalization new joint venture commercial banks started to come up and the number finally has reached to 26 to date. Due to this rapid increase in the number of commercial banks in a short span of time the competitiveness has intensified. In the race to capture more market share there has been stiff competition between them. The ultimate winners of this competition have been the consumers as they are getting more service variety, faster services, easier accessibility etc. To attract new customers the bank are coming up with new and innovative products matching international standards. Since the beginning of the new millennium the joint venture banks have come up with new product like debit card, mobile banking, internet banking, home banking, ABBS etc which an average consumer had not even imagined a decade back.

Deposit is the important factor for the commercial banks. Higher the deposit, higher will be the chances of mobilization of funds. The bank should be very careful while granting loans and advances because loan is the life blood to the commercial banks for the survival. If commercial banks don't apply sound investment policy, it will be a great trouble to collect the loan in future. Therefore,

the banks should invest the money in different sectors after deep study to save the bank from the bankruptcy.

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

5.3 Recommendations

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

- Interest rate on deposits is too less in Nepal. Joint venture banks are suggested to increase the interest rate on deposits so that depositors are benefited by their saving.
- The high spreads between interest rate on deposit and lending is another factor to be considered. Higher spread merely increases the partite margin of the banks but at the same time it reduces the deposits collection and investment in the country. So financial institution are suggested to reduce the spread as minimum as possible.
- The central banks of Nepal, NRB should pay special attention towards decreasing trend of interest rate on deposit. It may cause different bad effect in the country such as disintermediation, lack of saving and further saving may go outside of the country.
- As the central bank of the country, NRB has power to specify the range or spread between lending rate and deposit rate. So NRB is suggested to specify the spread whenever there is high gap between lending rate and

deposit rate in the country. In order to create fair economic situation, NRB being the regulator it should watch the functions of banks very closely.

- As the key to success for any organization and for good financial system in the country capital investment is essential, this is possible only by proper decision making of interest. So all the joint venture banks are supposed to set proper and practical interest rate policy.
- While reducing the lending rate, it is suggested to reduce more on productive sector than non productive sectors. If not possible then bankers can reduce the rate of all sectors proportionally.
- In order to promote more lending and to promote more borrowing lending institutions should introduce new costumer's oriented shames of lending and borrowing. So that more lending can be promoted and over liquidity may be solved.
- Banks are not able to mobilize to its deposits in terms of loans due to lack of sufficient safe investment opportunities. Thus it is suggested to the government to improve the political situation of the country.
- As NRB'S publications are the major sources of data and information regarding this topic, untimely and late publication makes the researcher wait long and even individual banks do not put available information regarding interest rate structure on their published report. So NRB and even individual and joint venture banks are suggested to publish all necessary publication in time and in their publication respectively for the convenience of researcher and other interested people.

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Questionnaire

A survey on interest rate structure and its effect on deposit and lending of joint venture commercial Banks in Nepal.

Name: ……..

Position: ……..

Institution: …….

Address: …….

Question No 1. Is Present condition of joint venture Banks in Financial Market is good?

- ☐ Good
- ☐ Satisfactory
- ☐ Poor
- ☐ Unsatisfactory

Question No 2. Interest rate structure of the banks is appropriate to attract the investor and depositors?

- ☐ Yes
- ☐ No
- ☐ May be

Question No 3. There is high lending rate in non-productive sector rather than productive sector?

- ☐ Yes
- ☐ No
- ☐ Don't know

Question No 4. People are feeling safe to deposit their saving on the banks?

- ☐ Yes
- ☐ No
- ☐ Don’t know

Question No 5. Interest rate on deposit and lending of the banks is effective in Nepalese financial market?

- ☐ Effective
- ☐ Satisfactory
- ☐ Ineffective

Question No 6. Deposit on saving deposit scheme is effective than fix deposit scheme?

- ☐ Yes
- ☐ No
- ☐ Don't know

Question No 7. Open borders with India affect the interest rate in borrowing and lending?

- ☐ Highly effective
- ☐ Normally effective
- ☐ Ineffective

Question No 8. People deposits more or with draw in the situation of violence and insecurity?

- ☐ Withdraw more
- ☐ Deposit
- ☐ No effect

Question No 9. Rules and regulation of Nepal Rastra Bank?

- ☐ Good
- ☐ Satisfactory
- ☐ Inadequate

Question No 10. Reasons that banks aren't properly utilizing the deposits in terms of loans to generate profit?

- ☐ Political situation
- ☐ Interest rate
- ☐ Other factors

Question No 11. Joint venture banks are playing important rate in economical development of the country?

- ☐ Yes
- ☐ No
- ☐ May be

Annex-I

Results of empirical studies

Questions	Option Provided	Respondents	Total	Percent
1.	a. Good b. Satisfactory c. Poor	12 8 -	20	60% 40% -
2.	a. Yes b. No c. May be	10 4 6	20	50% 20% 30%
3.	a. Yes b. No c. Don't Know	10 3 7	20	50% 15% 35%
4.	a. High b. Low c. Medium	13 - 7	20	65% - 35%
5.	a. Effective b. Satisfactory c. Ineffective	12 8 -	20	60% 40% -
6.	a. Yes b. No c. Don't Know	15 4 1	20	75% 20% 5%
7.	a. Highly Effective b. Normally Effective c. Ineffective	13 6 1	20	65% 30% 5%
8.	a. Deposit more b. Withdraw c. Inadequate	- 19 1	20	- 95% 5%
9.	a. Good b. Satisfactory c. Inadequate	3 16 1	20	15% 80% 5%
10.	a. Due to Interest b. Due to Political c. Due to other	8 7 5	20	40% 35% 25%
11.	a. Yes b. No c. May be	19 - 1	20	95% - 5%

ANNEX-II

Calculation for Mean value, Standard Deviation, Correlation between &t-test of saving Deposit Amount and Saving Interest Rate of NABIL

Year	Interest rate (X_1)	Saving Amt (X_2)	$x_1=X_1-\bar{x}_1$	$x_2=X_2-\bar{x}_2$	$x_1 . x_2$	x_1^2	x_2^2
2004/05	5.25	1259.5	-0.75	-3201.96	2401.47	0.5625	10252547.84
2005/06	5.25	1274.7	-0.75	-3186.76	2390.07	0.5625	10155439.3
2006/07	6	3274.6	0	-1186.86	0	0	1408636.66
2007/08	6	4171.1	0	-290.36	0	0	84308.93
2008/09	6.25	5822.2	0.25	1360.74	340.185	0.0625	1851613.35
2009/10	6.5	7348.9	0.5	2887.44	1443.72	0.25	8337309.75
2010/11	6.75	8079.2	0.75	3617.74	2713.305	0.5625	13088042.71
$N_1 = 7$ $N_2 = 7$	$\sum X_1 = 42$	$\sum X_2 =$ 31230.20			$\sum x_1.x_2 =$ 9288.75	$\sum x_1^2 =$ 2	$\sum x_2^2 =$ 45177898.54

For saving deposit interest rate,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{42}{7} = 6$$

$$\text{S.D } (\boldsymbol{\sigma}) = \sqrt{\frac{\sum(X_1-\bar{x}_1)^2}{N_1}} = \sqrt{\frac{2}{7}} = 0.54$$

For Saving Deposit Amount,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{31230.20}{7} = 4461.46$$

$$\text{S.D } (\boldsymbol{\sigma}) = \sqrt{\frac{\sum(X_2-\bar{x}_2)^2}{N_2}} = \sqrt{\frac{45177898.54}{7}} = 6721.45$$

Correlation between saving deposit interest rate & Saving Deposit Amount,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

$$= \frac{9288.75}{\sqrt{2*45177898.54}} = 0.977$$

For Hypothesis,

Test statistic under H_o,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{s^2\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}} = \frac{(6-4461.46)}{\sqrt{3921.16\left(\frac{1}{7}+\frac{1}{7}\right)}} = 0.005$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1+n_2-2} = \frac{7\times 0.54 + 7\times 6721.45}{7+7-2} = 3921.16$$

ANNEX-III

Calculation for Mean value, Standard Deviation, Correlation between &t-test of Fixed Deposit Amount and fixed Interest Rate of NABIL

Year	Interest rate (X_1)	Fixed Amt (X_2)	$x_1 = X_1 - \bar{x}_1$	$x_2 = X_2 - \bar{x}_2$	$x_1 \cdot x_2$	x_1^2	x_2^2
2004/05	5.75	2929.4	0.25	-9361.3	-2340.325	0.06	87633937.69
2005/06	4.75	3132.7	-0.75	-9158	6868.5	0.56	83868964
2006/07	4.88	5517.4	-0.62	-6773.3	4199.446	0.38	45877592.89
2007/08	5.08	6854.8	-0.42	-5435.9	2283.078	0.18	29549008.81
2008/09	5.8	17438.4	0.3	5147.7	1544.31	0.09	26498815.29
2009/10	6	22148.9	0.5	9858.2	4929.1	0.25	97184107.24
2010/11	6.3	28013.3	0.8	15722.6	12578.08	0.64	247200150.8
$N_1 = 7$ $N_2 = 7$	$\sum X_1 =$ 38.56	$\sum X_2 =$ 86034.9			$\sum x_1.x_2 =$ 30062.19	$\sum x_1^2 =$ 2.17	$\sum x_2^2 =$ 617812576.7

For Fixed deposit interest rate,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{38.56}{7} = 5.5$$

$$\text{S.D } (\boldsymbol{\sigma}) = \sqrt{\frac{\sum(X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{2.17}{7}} = 0.56$$

For Fixed Deposit Amount,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{86034.9}{7} = 12290.7$$

$$\text{S.D } (\boldsymbol{\sigma}) = \sqrt{\frac{\sum(X_2-\bar{x}_2)^2}{N_2}} = \sqrt{\frac{617812576.7}{7}} = 9394.63$$

Correlation between saving deposit interest rate & Saving Deposit Amount,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

$$= \frac{30062.19}{\sqrt{2.17 * 617812576.7}} = 0.822$$

For Hypothesis,

Test statistic under H_o,

$$t = \frac{(\bar{X}_1-\bar{X}_2)}{\sqrt{s^2\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}} = \frac{(5.5-12290.7)}{\sqrt{5480.6\left(\frac{1}{7}+\frac{1}{7}\right)}} = 0.019$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1+n_2-2} = \frac{7\times0.56+7\times9394.63}{7+7-2} = 5480.6$$

ANNEX-IV

Calculation for Mean value, Standard Deviation, Correlation between &t-test of Lending Amount and Lending Interest Rate of NABIL

Year	Interest rate (X_1)	lending Amt (X_2)	$x_1=X_1-\bar{x}_1$	$x_2=X_2-\bar{x}_2$	$x_1 . x_2$	x_1^2	x_2^2
2004/05	12.63	10550	1.34	-11126.97	-14910.14	1.80	123809461.4
2005/06	12.33	11385.7	1.04	-10291.27	-10702.92	1.08	105910238.2
2006/07	12.04	12119.9	0.75	-9557.07	-7167.80	0.56	91337586.98
2007/08	10.95	15202.5	-0.34	-6474.47	2201.32	0.12	41918761.78
2008/09	10.67	28417.9	-0.62	6740.93	-4179.38	0.38	45440137.26
2009/10	10.67	33786.1	-0.62	12109.13	-7507.66	0.38	146631029.4
2010/11	9.78	40276.7	-1.51	18599.73	-28085.59	2.28	345949956.1
$N_1 = 7$ $N_2 = 7$	$\sum X_1 =$ 79.07	$\sum X_2 =$ 151738.8			$\sum x_1.x_2 =$ -70352.17	$\sum x_1^2 =$ 6.60	$\sum x_2^2 =$ 900997171.1

For Fixed deposit interest rate,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{79.07}{7} = 11.29$$

$$\text{S.D } (\boldsymbol{\sigma}) = \sqrt{\frac{\sum(X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{6.60}{7}} = 0.971$$

For Fixed Deposit Amount,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{151738.8}{7} = 21676.97$$

$$\text{S.D } (\boldsymbol{\sigma}) = \sqrt{\frac{\sum(X_2 - \bar{x}_2)^2}{N_2}} = \sqrt{\frac{900997171.1}{7}} = 11545.21$$

Correlation between saving deposit interest rate & Saving Deposit Amount,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum {x_1}^2 \sum {x_2}^2}}$$

$$= \frac{-70352.17}{\sqrt{6.60 * 900997171.1}} = 0.9125$$

For Hypothesis,

Test statistic under H_o,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{(11.29 - 21676.97)}{\sqrt{6735.27\left(\frac{1}{7} + \frac{1}{7}\right)}} = 0.00341$$

$$S^2 = \frac{n_1 {s_1}^2 + n_2 {s_2}^2}{n_1 + n_2 - 2} = \frac{7 \times 0.971 + 7 * 11545.21}{7 + 7 - 2} = 6735.27$$