IMPACT OF INTEREST RATES ON DEPOSIT MOBILIZATIONS OF *COMMERCIAL BANK OF NEPAL*

With Special References from Nepal Investment Bank Ltd., Nepal

SBI Bank Ltd., Everest Bank Ltd. and Bank of Kathmandu Ltd.

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Recommendation

This is certify that the thesis

Submitted by
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Entitled

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(A Case of Selected Joint Venture Commercial Banks of Nepal)

has been prepared and approved by this Department in the prescribed format of Faculty of Management . This thesis is forwarded for examination.

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VIVA-VOCE SHEET

We have conducted the Viva-voce examination of the thesis

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and found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for the Master's Degree in Business Studies (MBS).

VIVA-VOCE COMMITTEE

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DECLARATION

I hereby declare that the work done in thesis entitled "**Interest Rate Impact of Deposit Mobilization of Commercial Bank of Nepal**" has been submitted to Lumbini Banijaya Campus Faculty of Management, Tribhuvan University, is my own created work reported in the form of partial fulfillment of the requirement of Master's Degree in Business Studies (MBS) course under the guidance of respected teachers Binod Dhungana, Lumbini Banijaya Campus.

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Abbreviation

NIBL	Nepal Investment Bank Limited
EBL	Everest Bank Limited
HBL	Himalayan Bank Limited
NABIL	Nabil Bank Limited
B.S.	Bikram Sambat
A.D.	Anno Domini
NRB	Nepal Rastra Bank
NGOs	Non-government organizations
Rs.	Rupees
ADB	Agriculture Development Bank

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Nepal is one of the economically backward countries in the world having characteristics of weak economy and financial dualism, weak and underdeveloped money and capital markets. One of the causes is the lack of economic resources for the growing population and slow rate of economic growth. The reason behind Nepal's underdeveloped is not only because to lack of resources but also due to improper utilization of available resources.

Financial infrastructure of our economic consists of financial intermediation, financial institutions and financial markets. Financial institutions lay an important foundation and play a role of catalysts in the progress of economic growth of the country. The present structure of financial institutions is based on the foundation laid by the commercial bank.

Economic liberalization policy of the government has encouraged the establishments and growths of commercial banks in the country within short period of time. In a situation when the existing financial institutions, especially government's banks were unable to supply credit in time and carry capital market activities, private joint venture commercial banks have contributed a lot .with time many financial institutions were established making market more competitive and more innovative.

During this period general public showed vast changes in the approaches by the financial institutions. As obvious commercial banks have benefit over other financial institutions because of it vast operational area and product variety. However, the commercial banks too could not bear such a stiff competitive enough environment, in recent years it began catering small customers who were the share of smaller finance companies and co-operative societies.

The role of commercial banks in every nation of the world is in pursuit of attaining the goal of rapid economic development. The ability of commercial bank to create credit and provide numerous banking services like deposit acceptance, overdraft facilities, market making, agency services, investment and general utility services is well appreciated by different sectors, that is way commercial bank prosper in all conditions. While addition of increasing horizon of work area and entrance of new market, innovative product and services put this bank a step ahead than any other types of banks and financial institutions.

In the context of Nepal our history of banking sector is rather more slow evolution. Even now, the banking system is still in the evolutionary phase. So far as banking is concerned with debt, we may go back in the Nepalese history, where a merchant namely “sankhdhar” is recorded. He was the person who alone paid all debts of the people existing in the country at that time. Since then he introduced a new era called Nepal Sambat. This record proves the existence of money lending function at that time.

During the course of development of borrowing, we further come across the term **Tanka Dhari** at the end of the 14th century meaning moneylenders. They are one of the 64 castes classified on the basis occupation. In 1877 A.D **Tejarath Adda** was established by then government. The main purpose of this institution was to provide credit facilities to the general public at minimum interest rate of 5 percent. The establishment of this institution marked beginning of organized financial institution in Nepal.

The banking business in Nepal began with the establishment of Nepal bank limited in 1994 B.S. Nepal bank limited used to carry out central banking functions also beside commercial banking function until the establishment of Nepal Rastra Bank in 2013BS. Realizing that Nepal bank alone was notable to extend adequate services to the country in terms of commercial banking, another commercial bank called Rastriya Banijya Bank was set up in 2022 BS, Agricultural development bank was established with the objectives of promoting the agricultural base in the country and the Cooperative bank which was set up 2020 B.S., was merged with it due to a similar nature of their function.

In 1990 after the success of the popular movement, a pluralistic democratic system of governance was reinstated in the country. The democratically elected government initiated the process of economic liberalization which was in line with the winds of change blowing all over the world, especially Asia. The country significantly reduced control over foreign trade and foreign exchange by incorporating free convertibility of current accounts. The government declared its sincere belief and reliance on private sector led growth and in limiting the role of the government to create a conducive atmosphere for a market regulated economic process. The government also encouraged private sector participation in sectors of the economy, which until then was controlled by state. The regulations for establishing banks were significantly eased. This was the time when financial institutions increased its number and banking units through out the country. They were allowed to determine their own borrowing/landing rates. Insurance was also opened for private sector participation. Technological developments have equally supported banking business which put our banks to international standard. More and more banks are coming forward with globally recognized customer friendly software which offers varieties of facilities like debt and credit cards, SMS banking, and various online services. All these facilities have help to provide services at short period of time and with good amount of accuracy. Our banks with all these facilities see it to reach another age where it has been able to fulfill the distant dream of its valuable customers. The slogan of “banking at your finger tips” was on the air through out the year as every banks feel it has been necessity to adopt technological change of current market.

Capital in a free economy is allocated through the price system. The interest rate is the price paid to borrowed capital. While in the case of equity capital investors return come in the form of dividends and capital gains. This cost is affected by various factors. The most fundamental things that effects cost of money are production opportunity and time preference for consumption. The return available within an economy from investment in productive assets determines the cost of investment or borrowing. Similarly, the preference of consumers for current consumption as opposed to saving for future consumption also determines the cost of borrowing or return on lending. The collection of

deposit ant its mobilization are the two sides of the same coin, in the absence of one another can not work i.e. no collection of deposit no mobilization and on proper mobilization of deposit no collection of deposit. They both get along with another under favorable conditions, interest rate being most. Interest rate is the main factor in fund activities of commercial banks. Interest rate affects on the collection of deposits, mobilization of saving and profit position.

On august 31, 1989, commercial bank and financial institutions were granted complete autonomy in determining their own deposit and loan rates. The interest rates were completely liberalized. They had been also given complete freedom to make rules and working procedures about the kinds of deposits, time period of deposits, repayment conditions, penal interest and interest capitalization of overdue loans. NRB took a flexible approach in making some adjustments in interest rate by putting control on it. However, the impact of economic liberalization in developing countries as a result of financial globalization began to influence Nepal as well. This ultimately brought deregulation in interest rate by leaving the interest rate to be determined by market force. The keen competition between the banks and financial institutions brought interest rate war to such an extent that deregulation should follow self regulation otherwise, economic disturbances from rising interest rate is bound to have negative impact on financial sectors.

1.2 Statement of the Problem

This is modern and scientific age. Each and every thing including banking sector is heavily affected by science and technology. The world is changing very fast. Recent survey suggests that banks are currently undergoing seeping changes in function and form. In fact, many industry analysts refer to these trends as a banking revolution.

Deposits are the funds collected by bank from account holders for the security and transaction motives. It is the amount of money or a valuable item that is received into a bank as security against possible loss. Utilization of the bank

deposits indicates effectiveness of management. The management should be able to raise deposit fund in the lowest cost and use maximum portion of deposits safely into loan advancement to maximize profitability. Both the cost and amount of deposits that the bank can sell to the public are heavily influenced by the interest rate schedules and competitive maneuverings of the bank. Loan is the sum lent to others for certain time period with the agreement to charge interest on principal. The interest is charged calculating certain percentage on the principal. The basic objective of loan advancement is to earn interest as the reward for lending the sum for specific period.

Though banking sector has always been promising sector giving high return and value to its promoters and shareholders, its down looking financial scenario has created very less investment alternatives and comparatively lower return. Our country showed several joint venture banks within short period of time fighting for small amount of market share which requires excessive force making high operational cost. Interest rate as a major tool to change the fortune of the bank it has always been modified as per situation and economy. After commercial banks received autonomy to determine their own interest rate they have greeter burden to carry if it is to shoulder responsibility to drag country towards prosperity. An appropriate interest rate I always sought to keep both parties i.e. depositors and borrowers at profitable position, even if there are negative impacts of change in interest rate it would be minimum. Due to stiff competition between the banks to increase the volume of deposit and loans and investments it has been working very less interest spread which is able to hardly cover total cost. This has been because of excessive availability of financial institutions. Moreover frequent changes interest rate within and outside the bank has changed the banking habit of individual depositors. There has been high tendency to transfer fund from less interest bearing bank to higher interest bearing ones while lower rated lending banks are seeing huge loan applications.

The change in interest rates certainly has deep impact on the activities of the commercial banks. This study basically deals with such impacts of interest rate on the deposit mobilization and the ultimately the profitability of the company. The main attempt of this study will be to answer the following questions.

- What will be the impact of increasing and decreasing interest rate on deposits, loans and investment and ultimately profitability of the company?
- Whether or not the interest rate structure effects the investment of commercial bank?
- Is interest rate main factor to attract customers to banks?
- Is there any stability in deposit mobilization policy of the bank?
- What is alternative to interest rate policy if we have to increase or decrease deposit and investment level?

1.3 Objective of the Study

The general objective of the report will be to understand and analyze the impact of interest rate on deposit mobilization and its long term effect on the profitability of the bank. The specific objectives of this report are as follows:-

i. To study the impact of interest rates on the mobilization of deposit
ii. To study the interest spread and its impact on the profitability on bank.
iii. To study the dominance of the interest income to the total earning of the bank.
iv. To provide recommendations and suggestions to further improve the standing and position of the bank in the competitive market.

1.4 Significance of the Study

The scope of interest rate policy is as broad as its definition. Many genuine research works have been done and many important theories are formed and even applied in the economic world. However, Nepal has yet to achieve a bit of what other foreign students and scholars have achieved. While in a process, this is another effort to fulfill the gap that has been left by other researcher and continue their genuine work.

Banks are major part of the economy as their policies and movements are always under financial scrutiny. Old bank have obvious advantages over new bank in terms operational cost and expertise gained through past experience. However, new banks have obvious advantage provided by the updated and software and technology, which is definitely going to pay back in the long run.

Interest rates offered by new banks are naturally competitive making the interest spread much narrower, for this they don't have any other alternative in the short run. This stiff competition among banks have benefited all people relating to financial sector in terms of higher dependable interest on deposit, easy availability of modified lower rated loan and advances and wider range of products to accommodate all needy people. After the banks got autonomy to maintain their own interest rate it has to shoulder huge responsibility as they have to scrutiny every aspect of effect of increase or decrease in the interest level.

Any genuine study in this area can solve problems, set definite directions therefore there has always been encouragement to bring about new ideas and information. The study undertaken is deeply concentrated on impact of interest rate on deposit mobilization and profitability of the bank therefore it will be helpful to all directly or indirectly related to economic fields. The study will be well known for information; ideas brought forward, suggestion and conclusions drawn to respective problems etc.

1.5 Limitation of Study

Despite every attempt to bring forward this research work to a fully furnished and recommendable version, it will still be limited by various reasons. The major limitation being the only impact of interest rate on deposit mobilization is considered despite there are several factors which have higher influence. Further to point out few other limitations are as follows:

- The conclusions drawn on this report are based on five year data, the data of Nepal Investment bank Ltd, Nepal, Everest Bank Ltd, Himalayan Bank Ltd and Nabil Bank Ltd, only five year data published in annual report of the concerned banks and reports and bulletins of Nepal Rastra Bank.
- Deposit, loan, investments and profit are year end figures where as interest earned, interest expenses are total figure occurred through out the year. Any calculations related to this may show differences from the actual figure because year end figures were not same over the period.
- The answers to primary data are received from well educated friends and colleague but miss those people having lesser idea and play an important active role in financial sector.
- There are too many factors that affect deposit mobilization decision. However, only interest rate is considered in this study.
- The major part of the data in this report will be secondary therefore conclusions may reflect manipulations of the concerned institutions.

1.6 Chapter Plans of the Study

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

Chapter one will deals with the subject matter of the study consisting introduction, background of the study, statement of problem, significance of the study, limitation of the study and chapter plan of the study. In this chapter, we will explain what research is and try to understand the scope and purpose of research.

Chapter two will deals with the review of literature. It includes a discussion on the conceptual framework, review of books, previous research work, articles, publications and policy document. After developing the research idea, the researcher needs to conduct a careful review of the literature in his or her area of interest. There are several reasons for conducting a careful literature review. It can prevent the student from conducting a study that has already been

done, identify questions that need to be answered and help in getting ideas for designing the study.

Chapter three will explains the research methodology used to evaluate, which deals the hypothesis to be tested, research design, the population, the sampling procedure, the data gathering procedure, the variables and measures, the statistical procedure and the data processing procedure.

Chapter four will deals with presentation and analysis of relevant data and information in line with set research methodology will bring about definite directions for drawing conclusion and recommendation. The general purpose of this chapter is to examine the processes by which the meaning and implications of research data can best be extracted. Inappropriately or incorrectly analyzed data can provide interpretations and conclusions that could be completely wrong. It is therefore, important to appreciate the influence and contribution of data analysis.

Chapter five will states summary, highlights of the study, conclusion and recommendation derived from the findings of the study.

CHAPTER 2

REVIEW OF LITERATURE

Attractive interest rates are always welcomed by every sector, higher interest on deposit and lower rated credit are good for everyone taking benefits of banking facilities. Undoubtedly, every bank has the objective to cast positive impact of its interest rate establishing good relationships with its customer as they grow together. While in process to do so impact of interest rate always comes under scrutiny whenever we judge the standing of bank in terms of its effect on collection and mobilization of ***deposit*** and ***profitability*** of the bank as a whole.

This chapter lays the foundation of my research work, it discuss briefly about the theoretical concept of interest rates and its relation with other subjects. The bank's sensitivity to changes on interest rates is another source of liquidity problems. When interest rates fall, some depositors will withdraw their funds in search of higher returns elsewhere. This trend will decrease the liquidity in the bank significantly. At the same time, many loan customers may flow into banks for loan requests or speed up their drawings on those credit lines that carry lower interest rates. When interest rates rise, many depositors may rush into bank to deposit in their fund. Bank interest rate is very sensible. It means comparatively little difference in the interest rate on deposits can significantly increase or decrease the volume of bank deposit, because majority of bank customers are always looking for higher interest rate. At the same time, when interest rates rise, many loan customers may postpone new loan requests or speed up their drawings on those credit lines that carry lower interest rates. "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, banks will make excessive profits and this may lead to waste of saved resources. If it is low, it will discourage intermediation and devitalize financial institution" *Schulz (1978)* explains.

According to NRB interests rates has been increased significantly, especially in recent year, in the unorganized sector. It is for the increment in the ***investment*** because a significant part of the resources come from deposits and is used largely to provide credit private sector.

The bank shall have full powers to formulate, implement and cause to implement ***monetary*** policy of the Nepal. There is deep relationship between interest rate and monetary policy. Monetary policy works by controlling the cost and availability of credit. During inflation, the central bank raise the cost of borrowing and reduce the credit creating capacity of commercial banks, this ultimately increases the interest rate of bank. Increasing the money stock can lower the interest rates.

The changes in the interest rate and price level move together because they are interlinked with one another. Their relation is as follows.

- Interest rates tend to be high when prices are rising and vice-versa.
- Interest rates and weighted average of past price level changes are correlated with each other.
- High interest rates accompany “high” prices and low interest rates accompany “low” prices.
- Interest rate movement lags behind price level changes.

Weston *and* ***Brigham*** (*1984)* mentioned the price level trends affect interest rates in two important ways. The nominal interest rates the contract, or stated interest rate reflects expectation about future price level behavior. If prices are rising and expected to rise further, the expected rate of inflation is added to the interest rate that would have prevailed in the absence of inflation to adjust for the decline in purchasing power represented by price increases.

For the depth understanding of interest rate and its impact some relevant books, research papers, articles and genuine thesis are also reviewed to share to knowledge left by past researcher and books. The review of the old but valuable literatures is done in following order.

- Review of policy document
- Review of research papers and Articles

- Review of relevant books
- Review of thesis

Dr. Khem Raj Bhetuwal (NRB 2007) said in his financial liberalization and financial development in Nepal "an efficient financial system can effectively mobilize and allocate resources leading to robust economic growth. Financial liberalization improves the functioning of financial system by increasing the availability of funds and allowing risk diversification and increased investment. The indices of financial liberalization and financial development, generated by the principal component analysis, depict a gradual process of financial liberalization and a continuous financial sector development. The paper finds the presence of bi-directional causal relationship between the liberalization of financial sector and level of financial development in Nepal."

NRB News (2007) In order to understand existing legal and regulatory constraint to savings' mobilization, it is important to understand why institutions take savings in the first place and how regulators approach the collection and use of deposits. Institutions take savings primarily for two reasons. First, it is a source of finds for the institutions and is perhaps the cheapest source of funds available (not in every case though) and secondly it is a source that entices the client to enter into the financial system and utilize other financial services for which the provider would earn a fee. This creates a situation whereby the depositor is, in fact playing a role of investor in the financial institution. So, even though depositor does not pay much attention to what financial institutions are doing of their funds, the financial institutions including banks will have interest of priority to earn a return on this investment higher than the interest rate being paid to the depositor. Since savings is supposed to be utilized for earning a return on investment, there is a risk involved in such investment as to whether the financial institutions would return back that money to the savers entrusted to them. On account of such risk involved, financial regulatory systems are generally set up with an aim to protect the safety and soundness of the financial system.

Like anything else in economics, there's a few competing definitions of the term interest rate. The Economics Glossary defines interest rate as:

“The interest rate is the yearly price charged by a lender to a borrower in order for the borrower to obtain a loan. This is usually expressed as a percentage of the total amount loaned.”

A more thorough definition of an interest rate can be found in *The Economist's Dictionary of Economics*. In part they define the "rate of interest" as:

“The proportion of a sum of money that is paid over a specified period of time in payment for its loan. It is the price a borrower has to pay to enjoy the use of cash which he does not own, and the return a lender enjoys for differing his consumption or parting with liquidity. The rate of interest is a price that can be analyzed in the normal framework of demand and supply.”

The interest entry by Paul Heyne at The Library of Economics and Liberty expands on this idea of the interest rate as a price which is determined by market forces:

“The interest rate is determined by demand and supply: the demand for present control of resources by those who do not have it, and the supply from those who do have control and are willing to surrender it for a price. The question of exactly why demand and supply yield a positive rate of interest is one of the most fiercely disputed questions in the history of economic theory. It is enough to point out that when an individual acquires present command of resources; his or her set of available opportunities expands. In short, the present command of resources is something that people want. Therefore, those who get it are willing to pay for it, and those who give it up insist that they be compensated for doing so.

Note that when people discuss interest rates, they're generally talking about nominal interest rates. A nominal variable, such as a nominal interest rate, is one where the effects of inflation have not been accounted for. Changes in the nominal interest rate often move with changes in the inflation rate, as lenders not only have to be compensated for delaying their consumption, they also must be compensated for the fact that a dollar will not buy as much a year from now as it does today. Real interest rates are interest rates where inflation has been accounted for. This is explained in more detail in Calculating and Understanding Real Interest Rates.

J. M. Keynes, (1936 p. 136) "The General theory of employed, interest and money" in J.M. Keynes's book brought forward his view about the rate of interest. Community's liquidity preferences and quantity of money determine the level of or rate of interest. These three things liquidity preferences, quantity of money and rate of interest are negatively correlated. At low rate of interest the liquidity preferences of community is high and it is low at high rate of interest.

According to the modern view interest rate determination depends upon the investment, the marginal efficiency of capital is the rate of interest and investment is equal to the desire volume of saving.

Thus the total investment = total saving or I = S

Keynes said that the three divisions of liquidity preference are

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

Kishor Kumar Khatri, (*1980)* mentioned in his thesis that the overall performance of commercial banks in satisfactory and Nepal Rastra bank has to play more active role to enhance the operation. The liquidity position of commercial bank is satisfaction co-efficient of correlation of deposit and lending and investment of commercial banks have better position. The co-efficient of interest rates and deposits of commercial banks do not have better position. He further found that the trend of deposit loan and advances and investment to deposits is in decreasing trend. He concluded his thesis mentioning that the interest rate has played important rate in deposit mobilization of the bank. So, the structure of interest rate should be changed according to the need of nation.

Mr. Guru P. Neupane (*1997)* mentioned in his research work that interest rate various among nations. It depends upon their economic activities and existing policies. In every economy, we find inverse relationship between investment and interest rate. Higher the interest rate, lower the investment and vice versa. Direct relationship may be found between interest rate and savings. With the lower interest rate, the deposit also falls down. So while determining the interest rates there should always be equality in savings and investment. Appropriate interest rates scan direct investment in the proper filed. For resources, interest rate should be positive.

In Nepal, interest rate can perform the following functions,

- The interest rates mobilized savings.
- The interest rates in an effective rationing device for the allocation of the scarce resources between alternative investments.
- The interest rate can provide a social discount rate for decision to save and invest.

Interest rate has the guideline for directing the investment in to productive sector. The cheaper interest rate of the commercial banks diverted the capital into unproductive and speculative sectors.

Mrs. Ruru Kusum Gautam *(2000)* in her study paper "Investment analysis of the finance companies in context of Nepal" has find out following conclusion.
Development of any country largely depends upon its economic development. The process of economic development depends upon various factors, however economists are now convinced that capital information and its proper utilization plays a paramount role. Financial institution plays a role in the proper functioning and the economic development of the bank. Economic liberation policy of the government has encouraged the establishment and growth of the finance companies in the country within a short span of time. In a situation when the existing financial institution especially commercial banks. banks were unable to supply credit timely and carry capital market activities, finance companies have contributed a lot.

She found the overall performance of finance companies is satisfactory and Nepal Rastra Bank has to play active role to enhance the operation. The analysis of lending and investment activities shows that only very few finance companies have aggressive investment strategy as compared to most of the others following conservative strategy.

She points out there is an unhealthy competition on interest rate for collection of deposit fund and profitability of the company. She believes interest rate should be controlled by putting upper and lower ceiling rather present spread rate system. This will not only reduce the confusion of the customer, it will ensure the proper functioning of the company. Another important thing is strong repayment mechanism and its implementation, as the number of defaulters is increasing, this should be in first priority.

Laxmi Shrestha (*2002)* in her thesis "A study on impact of interest rate structure on investment portfolio of finance companies of Nepal" concluded on following issues.

Need of appropriate interest rate structure. The rates should be charged according to the capacity of Nepalese people. Investment should be higher yield oriented for this they have to invest their fund in higher return sector. It will increase the profit position of the company. Finance companies should act to achieve long term goal and accept only few short term profitable options. NRB should consider the adequacy of spread of finance companies. Because the services provided by finance companies are different from commercial banks. Financial institutions should given sufficient attention on credit flow and repayment of loan for the effective mobilization of resources.

(Neupane: (2003) mentioned in his thesis that interest role is the best tools to mobilize saving and channelize them to desired channels. It is various among nations and depends upon their economic activities and existing policies. It is possible because the interest rate are sensitive to changes in both deposits and loans. But we should not accept that the changes in interest rates. There are many other variables to affects the volume of deposits and credit of the bank. The

inffaction rate the trade condition the policy legs of atatre corporation markets the lending policy of the bank, the tax rate, the margin rate and so on may after the policy of interest rates as well as the credit deposit operation of the banks.

Shweta Malla (2004) has conducted a thesis on "*financial performance of commercial banks with special reference to Himalayan Bank and Nabil bank*" to examine the financial performance of HBL Bank and Nabil Bank. The main conclusions of the study were the overall liquidity strength of HBL can be considered the better than that of Nabil. However, the liquidity risk is most likely in Nabil, arising from its interest rate. Since the market is highly sensitive towards the interest rate and Nabil has generally been offering low interest rate as compared to other banks. If Nabil can not tie up its saving deposits saving holders form its advances and personalized banking system, the failure in liquidity in Nabil is most likely than HBL in coming future. The analysis of strength of HBL in loan and advances is the best. The ratio of loan and advances to total assets, investment to loan and advances and loan and advances to shareholder's equity indicate the superior performance of HBL in its lending activities as compared to Nabil despite low volume of non interest bearing deposits in its capital mix. However the loan and advances and investment to total deposit ratio have upgraded the performance of Nabil. The mean ratio of investment to loan and advances of Nabil is higher than the combined mean ratio and that of HBL is lower than combined mean. This indicates that investment of Nabil is higher than that of HBL. The ratio of loan and advances and investment to deposit ratio of Nabil is higher than that of HBL. This indicates that Nabil has been able to mobilize its funds more significantly than that of HBL.Comparing the net profit and total expenses of these two banks, Nabil has the highest total net profit throughout the year and also the highest total expenses. Nabil has adopted risk avoiding concept and headed towards investment in government securities where as HBL is heading towards increasing advances with the concept of risk taking.

The mean ratio of interest income to total income ratio has concluded that the contribution of interest income in total income mix of HBL is the highest. This means that major portion of total income of HBL is highly dependent on loan and advances. The interest expenses to total deposit ratio indicates that the total cost of

funds in HBL is the highest than that of Nabil. This shows that HBL has been unable to collect low cost deposit

In the opinion of the *Sahindra Sheresth* (*2005)* in his study on ”impact of interest rates on deposit mobilization of commercial banks of Nepal” founded top banks have comparatively lower dependency than smaller banks; smaller banks are prone to face higher impact of interest rate on mobilization of its fund. This is reason why smaller banks need to increase deposit interest rate and decrease lending rate to minimize the expected negative impact of interest rate. He has pointed out his findings.

Changing interest rate structure can create a competitive environment among commercial banks. The wider spreads of interest rate help the commercial banks to manage the higher liquidity position and good profitability. A high interest in deposit and low in lending is important to attract customer to the banks but facilities offered by the banks also plays an important role for the success of banks. An appropriate and realistic interest rate on lending can help in the optimum utilization of available resources.

Mr. Thaneshor Paudel (2008) in his thesis study on " impact of interest rates on deposit mobilization of finance companies at rupandehi” find out that Economic liberalization policy of the government has encouraged establishing and growing of FC’s with in short span of time. In a situation when existing financial institution specially governments commercial banks were unable to mobilizing the deposit and to carry capital market activities, finance companies have contribute a lot. Now there are 79 FC’s up to mid January 2008 and all are operating smoothly. Due to the active roll of Nepal Rastra Bank overall performance of FC’s is almost satisfactory.

Interest is the price that one pays for utilizing a certain amount of money for specified period of time. An interest rate play the vital role for collection and mobilization of deposits for decades and still it is continues. People prefer to deposit when deposit interest rate is high and wish to take loan when lending rate

is low. But it is carefully deciding what rate is high and low which is based up on market forces.

The ratio analysis of FC's seems in sound position. Credit deposit ratio is near 100%, liquidity position is also in satisfactory level, and income per share is near 25% each year and net worth is also in increasing trend. The coefficient of correlation between deposit interest rate and total deposit is positively correlated, lending interest rate and total credit is negatively correlated, total deposit and total credit is positively correlated and interest spread rate and profitability is also more or less positively correlated. The overall performance of FC's have been sound over the years and is in good profitable position which proves the positive impact of the interest rates

The FC's have to prove some criteria- presence in rural areas and they can really contribute to the national economy, are efficient and viable organization for mobilization of deposit and its canalization into productive sectors, are professionally managed and competent to ensure adequate rate of return on investment and are strategically well planned to be competitive with other agencies and are trust worthy.

Highlights on Performance of Financial Sector

The Nepalese financial sector is composed of banking sector an Non-banking sector. Banking sector comprises Nepal Rastra Bank (NRB) and commercial banks. The non-banking sector includes development banks, finance companies, micro-credit development banks, co-operative financial institutions, non-government organizations (NGOs) performing limited banking activities and other financial institutions such as insurance companies, employee's provident fund, citizen investment trust, postal saving offices and Nepal stock exchange. However, this bulletin contains information only on those financial institutions which are licensed by NRB up to mid-Jan 2008.

During the last two and half decades the number of financial institutions has grown significantly. At the beginning of the 1980s there were only two

commercial bank and two development banks in the country. After the induction of economic liberalization policy, particularly the financial sector liberalization, that impetus in the establishment of new bank and non-banks financial institutions. Consequently, by the end of mid-Jan 2008 altogether 235 banks and non banks financial institutions licensed by NRB are in operation. Out of these, 23 are "A" class commercial banks, 58 "B" class development banks, 79 "C" class finance companies, 12 "D" class micro-credit development banks, 16 saving and credit cooperatives, and 47 NGOs.

Table (i): Growth of Financial Institutions:

Table 1

Number of Financial Institutions in mid-July

Institutions	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**	**2006**	**2007**	**2008**
Commercial Banks	2	3	5	10	13	17	18	20	25
Development Banks	2	2	2	3	7	26	28	38	58
Finance Companies	-	-	-	21	45	60	70	74	79
Micro Credit Development Banks	-	-	-	4	7	11	11	12	12
Saving and Credit Cooperatives(limited Banking activities)	-	-	-	6	19	20	19	17	16
NGOs (financial intermediaries)	-	-	-	-	7	47	47	47	47
Total	**4**	**5**	**7**	**44**	**98**	**181**	**193**	**208**	**237**

Source: Banking and financial statistics NRB mid. July 2008

- As an increment of number and business of commercial bank contributed to impressive growth in the size of total assets i.e. sources of fund. In the mid July 2007, the total sources of fund of commercial bank increased by higher rate of 14.45 percent compared to 4.84 percent in preceding year. The total sources of fund of the commercial banks reached to Rs. 490638.1 million in mid July 2007. It was Rs. 428706.2 million in 2006.

- Loans and advances, the major component of assets, constituted the 46.66 percent of total assets in mid July 2007. Similarly, investment and liquid funds, another component of assets, registered the 19.06 percent and 8.98 percent of total assets in the same year. In the preceding year the respective share of loan and advances, investment and liquid funds were 40.44 percent, 19.15 percent and 9.06 percent.
- In the current year the loan and advances increased by higher rate of 32.05 percent compare to 8.61 percent in the last year. By the end of mid July 2007 the total outstanding amount of loan and advances of commercial

bank reached to Rs.228951.9 million. It was Rs. 173383.4 million in mid-July 2006.

- Of the component of liabilities, capital funds, despite the significant improvement, remained negative of Rs.4149.5 million in mid July 2007 as against Rs.17742.1 million negative in the last year.

- The composition of total liabilities shows that, the deposit held more than two third of total liabilities over the period of 2001-07. As of mid July 2007, it constituted the 68.79 percent. Similarly borrowing held the 2.60 percent in the same year. In the mid July 2006, the respective proportion of deposit and borrowing were 67.93 percent and 2.22 percent.

- In the current fiscal year deposit mobilization of commercial bank marginally increased by 15.88 percent compare to 15.39 percent growth in the previous year. By the end of mid July 2007 it reached to Rs. 337497.2 million from Rs. 291245.6 in the last year. Of the component of deposit, current deposit accelerated by higher rate of 20.45 percent compared to 7.91 percent in last year. Fixed deposit increased slightly higher of 13.89 percent compared to 13.75 percent in the previous year.

- However, saving and call deposit growth rate slipped to 15.23 percent and 18.62 percent compare to 16.65 percent and 28.51 percent respectively.

- Of the components of total deposit, saving deposit constituted the highest share of 51.77 percent followed by fixed deposit 25.84 percent, current deposit 12.84 percent and call deposit 7.99 percent in mid July 2007. In the last year the respective share of saving, fixed, current and call deposit were 52.07 percent, 26.29 percent, 13.34 percent and 7.80 percent.

- The share of borrowings to total liabilities accounted to 2.60 percent in mid-July 2007. It was 2.20 percent in the last year. In the mid July 2007 the borrowing of commercial banks grew by slower rate of 33.93 percent

compared to 39.12 percent in previous year. By the end of mid July 2007 it reached to Rs. 12750.4 million from Rs. 9519.6 million in the last year.

- Liquid funds increased by 14.45 percent and reached to Rs.44089.7 million in mid-July 2007 from Rs. 38842.1 million in mid-July 2006.

- In the purpose wise credit front, the total outstanding loans and advances reached to Rs.231844.7 million in mid July 2007. Out of them the production sector constituted the highest share of 26.90 percent followed by wholesale & retailers 19.68 percent, construction 8.53 percent, service industries 7.92 percent, finance, insurance & fixed assets 6.0 percent agriculture 5.98 percent transportation, communication & public services 5.66 and consumable loan 3.51 percent.

- Subsequent decision of NRB to phase out priority sector lending, it will not be compulsory to provide such loan from the fiscal year 2007/08. By the end of mid July 2007, total priority sector credit reached to Rs. 26957.40 million. The inclusion of financial figures of ADB in commercial bank resulted to increase significant proportion of priority sector credit to total credit in the current fiscal year. Consequently, it is recorded at 12.75 percent of total outstanding loan of six months ago. It was 5.7 percent (Rs. 10104.1 million) in mid July 2006.

- The deprived sector credit increased by 30.20 percent and reached to Rs. 6842.0 million in mid-July 2007 as compared to Rs. 5255.13 million in mid-July 2007. The ratio of deprived sector credit to total credit (six month ago) recorded at 3.24 percent in the current fiscal year. Last year it is was 2.97 percent.

- By the end of mid July 2007, the credit/deposit ratio of the commercial banks increased to 67.84 percent from 59.53 percent in the last year. Higher growth rate of loans and advances compared to deposit mobilization contributed to increase in this ratio.

- In the current fiscal year the net profit of the banking system grew by slower rate of 10.20 percent compared to 53.38 percent in the last year. By the end of mid July 2007 the net profit amounted to Rs. 8797.9 million from Rs 7983.5 in mid July 2006.

- In the capital adequacy front, it increased remarkably and turned to positive of 0.17 percent in the current fiscal year as against the negative in last four years. In the previous year this ratio was negative of 5.3 percent.

- The status of non-performing loan of commercial banks shows that, they are making positive improvement over it. By the end of mid July 2007, the ratio of non-performing loans to total loan and advances declined to 9.65 percent. Total amount of non-performing loan remained to Rs. 22182.9 million in the same year. In the last year the percent and amount of non-performing loan were 14.22 percent and Rs. 26770.42 million respectively.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

When a particular research area has been identified, research problem defined, and the related literature in the area have been reviewed; the next foremost step towards the objective is to set research methodology.

Research methodology is the process of arriving at the solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of facts and figures.

Research is a systematic and organized effort to investigate a specific problem that needs a solution (Sekaran, 1992). This process of investigation involves a series of well-thought-out activities of gathering, recording, analyzing and interpreting the data with the purpose of finding answers to the problem. Thus, the entire process by which we attempt to solve problems or search the answers to questions is called research.

Research is undertaken not only to solve a problem existing in the work setting, but also to add or contribute to the general body of knowledge in a particular area of interest to the researcher, research is thus a knowledge building process. It generates new knowledge, which can be used for different purposes. It is used to build a theory, develop policies, support decision-making and solve problems. With the opening of new frontiers of knowledge through research, new concepts and theories are developed to explain, verify, and analyze the social phenomena.

The basic objective of this study “impact of interest rates on deposit mobilization of commercial bank” is to focus how interest rate is playing an important role in the performance of the bank. It is basically all about finding

merits and demerits of the bank, find what are the competitive issue that are based interest earning and interest expense in now and again. For this study several processes and methodologies are followed and tools are used in systematic from to bring about thorough result and ideas in the progressive from.

3.2. Research Design

When a particular research area has been identified, research problem defined, and the related literature in the area have been reviewed; the next step is to construct the research design. Choosing an appropriate research design is crucially important to the success of the research project. The decision the researcher makes at this stage of the research process that ultimately determines the quality of the research results. A research design is the plan of attack: what approach to the problem will be taken? What methods will be used? And what strategies will be most effective? This chapter will explain the meaning of research design, the different types of research designs, and the common sources of error in a research design.

Research design is a framework or a general plan for the study guiding the collection and analysis of data. It focuses on the data collection methods, the research instruments utilized, and the sampling plan to be used. It is an integrated approach that guides the researcher in formulating, implementing, and controlling the study. The basic elements of a research design are:

i. The problem,
ii. The methodology,
iii. Data gathering,
iv. Data analysis,
v. Report writing.

A good research design combines all these elements.

"A research design is the arrangement of conditions for collection and analysis of dada in a manner that aims to combine relevance to the research purpose with economy in procedure" (Kothari, C. R.)

To achieve the objective of this study, comparative, descriptive and analytical designs have been used. Some statistical and accounting tools have been applied to examine facts and descriptive techniques have been adopted to evaluate the impact of interest rate on the performance of the bank.

3.3 Population and Sample

When some of the elements are selected with the intention of finding out something about the population from which they are taken, that group of elements is referred a sample and the process of selection is called sampling. a number of factors such as nature of problem, size of the universe, size of the sample , availability of resources(time, budget and manpower) etc would influence the selection of a particular methods of sampling. This is so because each method has its own specialty. hence I have used judgment or purposive sampling methods in which the researches selects the sample according to personal judgment, in other words, the investigator uses self judgment in the choice and includes only these items of the universe in the sample which are conveniences to him/her .

It is not always possible to study all the data related all commercial banks of Nepal. There are 25 commercial banks in the country and their stocks are traded actively in stock market. So, the impact of interest on the performance of four banks will be studied the following are the population of the bank and their sample chosen there of.

Sample

1. Nepal Investment Bank Limited
2. Everest Bank Limited
3. Himalayan Bank Limited
4. NABIL Bank Limited

3.4 Sources of data

Data may be obtained from several sources; it is easy to list them in detail. Each research project has its own data needs and data sources. However, the general classification of data sources has two dimensions: *primary and secondary sources*. Primary data are original data gathered by the researcher for the research project at hand. Thus these data are collected for meeting the specific objectives of the study. Primary data can be collected through *interviews, questionnaires, observations, or experiments*. Secondary sources refer to those for already gathered by others. The sources of secondary data can be divided into two groups: internal and external. The internal secondary data are found within the company. Sources of such data include sale information, accounting data and internally generated research reports. External secondary data are collected from sources outside the company. Such sources may include *books, periodicals, published reports, data services, and computer data banks*.

The research work is based on both primary and secondary data. However, secondary data used to higher extent due to time constraint and other important unreachable factor. Questionnaire from will be developed to collect views regarding investment decision while *annual report* of the Nepal Investment Bank Limited, NABIL Bank Limited, Everest Bank Limited, Himalayan Bank Limited Nepal Rastra Bank bulletin will be used as secondary source.

According to the need and objectives, all the secondary data are compiled, processed and tabulated in time series. Formal and informal talks to the concern member of department of the bank with a set of questionnaires will be used to obtain additional information of the related problem.

Similarly, various data and information are collected from the *periodicals, economic journals, managerial magazines and other published and unpublished reports and documents* from various sources will also be used.

3.5 Methods of Analysis

The purpose of analyzing the data is to changing it from an unprocessed from to an understandable presentation. The main purpose of such analysis is to obtain answers to the research questions or to test the hypothesis. Very closely linked with analysis is interpretation. The process of interpretation involves tabulating the results of analysis, making inferences relevant to the research relations studied, and drawing conclusions about these relations.

To achieve the objectives of the study various financial, statistical and accounting tools have been used in this study. The analysis of data will be done according to pattern of data available. Data collected will be brought under statistical scrutiny after the raw data is edited, coded and tabulated. Data will be analyzed in descriptive form interpreting each part systematically so that each and every person is able to understand as per their need.

The data covered from different sources will go through two different approaches

1. Financial tool
2. Statistical tool

Under financial tools simple growth patterns and highly sophisticated tool like ratio analysis will be used while under statistical tools graph, Karl Pearson's co-efficient of correlation and method of least square will be used and corresponding hypothesis will be drawn.

i) Financial tool

Out of various financial tools the analysis of the following ratios has been used for the evaluating the performance of the bank.

a. loan and advances to total deposit ratio $\frac{Loan\ and\ Advances}{Total\ Deposits}$

$\frac{Investments}{Deposits}$

b. total investment to total deposit ratio

c. return on total deposit ratio $\frac{Net\ Profit\ After Tax}{Deposits}$

d. interest earning to total assets ratio $\frac{Interest\ Earned}{Total\ Assets}$

e. interest coverage ratio $\frac{Earning\ before\ Interest\ \&\ Tax}{Interest}$

f. net interest margin (NIM) $\frac{Interest\ Income\ Z\ Interest\ Expenses}{Loan\ \&\ Advance\ \Gamma\ Investment\ on\ Securities}$

g. analysis of net interest income *(Interest from Assets-Interest Paid to liabilities)*

h. analysis of effective interest rate (λ) $\frac{Interest\ Earned}{Interest\ Earning\ Assets}$

i. analysis of interest rate spread (*Rate of Return- Cost of Fund)*

j. growth ratio ($A_n = A_0\ (1+g)^{n-1}$

ii) Statistical tools used

a) Coefficient of correlation analysis(r)

Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when the change in the value of one variable is accompanied by the change of another variable. Simple correlation coefficients measure the degree of simple relationship between the two variables. Among the various method of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1, when r= +1, it means there is perfect relationship between two variables and vice versa. When r = 0, it means there is no relationship between two variable. The Pearson's formula is:

$$r \times \frac{xy^2}{\sqrt{x^2 \quad y^2}}$$

The correlation will be determined for the following group variables.

1. Co-efficient of correlation between average deposit interest rate and deposit.
2. Co-efficient of correlation between average lending interest rate and total credit.
3. Co-efficient of correlation between total deposit and total credits.
4. Co-efficient of correlation between interest spread and net profit.

b) Probable Error

The probable error is used to measure the reliability and test of significance of correlation coefficient. It is calculated by the following formula.

$$\textbf{P.E.} = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

Where,

r = the value of correlation coefficient

n = no. of pairs of observation

P.E. is used in interpretation whether the calculated value of r is significant or not.

- If r<P.E., it is insignificant, i.e., there is no evidence of correlation.
- If r>6P.E. it is significant.
- If P.E. <r<6P.P. nothing can be calculated.

c) Regression analysis

Regression analysis studies the statistical relationship between the variables. The main objective of regression analysis is to predict or estimate the value of dependent variable corresponding to a given value of independent variables. When there is one predictor variable, it is simple regression analysis. It

is multiple regression analysis where there are two or more predictor variables. A regression analysis provides us with more information about the slope of the relationship.

In our study we will be doing regression analysis of the following dependent and independent variables.

1. Between deposit collection (dependent variable) and deposit interest rate (independent variable) of banking industry.
2. Between lending (dependent variable) and lending interest rate (independent variable) of banking industry.

Regression equation of y on x is given by.

$Y=a + bx$…….. (i)

Where,

Y = Dependent variable

X = Independent variable

a = Intercept of line

b = Slop of the line (it measures the average change of value of Y as a result of one unit change in value of X). It is also called regression coefficient of Y on X. in other words, It measures the rate of relationship.

The value of the constants a and b can be determined by solving following two normal equations (applying principle of least squares).

$\sum Y = na+b\sum X$…… (ii)

$\sum XY = a\sum X +b\sum X^2$….(iii)

Now, substituting the value of a and b in equation (i), we get required estimated regression equation of Y on X.

d) t-Statistic

The t-test is appropriate when the sample size is less then 30 and the population's standard deviation is unknown. For applying t-test in the context of small sample, the 't' value is calculated first and compared with the table of 't' at a certain level of significant for value of 't' exceeds the table value (say 0.05) we

infer that the difference is significant at 5% level. But if‘t’ is less than the concerning table value of the ‘t’ the difference is not treated as significant.

The test of following null hypothesis will be examined to draw the conclusion.

- Deposit interest rate does not play a significant role in deposit collection.
- Lending interest rate does not play a significant role in loan disbursements.

CHAPTER 4

PRESENTATION AND ANALYSIS

Introduction

In this section the authors will present an analysis by bringing theories and empirical findings together. Through this the reader will be able to get an understanding of the interest rate impact on the performance of the commercial banks. In first chapter we studied historical background of banks and their policies of interest rate, and in second we studied, why interest rates and its impact on the performance of the commercial banks is so important to have deeply studies.

They are the banks, in which people trust to deposit their wealth to safeguard them from risks. In other side, banks provide loans to trade and industries. In this way, banks are assumed to be as the back bane of the national economy. Therefore, effective performance of a bank is the interest of all including the government and creditors. This chapter focuses on the data relating to interest rate impact on the performance of the company. The figures presented in tabular and graphical manner in this report are simple in understanding and able to furnish many unsolved questions that are due till date.

4.1 Ratio analysis

The relation ship between two accounting figures expressed mathematically is known as a financial ratio. “ratio analysis is used to compared a

firm’s financial performance and status to that of firms or itself over time.” Firm the help of ratio analysis, the qualitative judgment can be done regarding financial performance of a firm.

In this study, following ratios are calculated and analyzed:

4.1.1. Loan and advances to total deposit ratio:

This ratio can be calculated by dividing loan and advances by total deposits. This ratio can be stated as:

$$\frac{\text{Loans and advances}}{\text{Total deposits}}$$

The following table represents total loan to total deposit of Investment bank limited, Everest bank limited, Himalayan bank limited and NABIL Bank Limited. The ratio of EBL shows it has comparatively invested high portion of its deposit funds into lending than other three banks. So EBL has been much aggressive in lending larger portion of its deposit fund, after that NIBL has been second position. HBL shows it has been much conservative in lending than others.

Table 2

Loan and advance to total deposit

(Rs. In million)

Investment bank limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	7923	11525	14255	18927	24489
Loans and advances	5922	7339	10453	13178	17769
Loan & advance/deposit	**0.7474**	**0.6368**	**0.7333**	**0.6963**	**0.7256**
Growth rate		**-0.1480**	**0.1515**	**-0.051**	**0.0421**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	6695	8064	10098	13802	18186
Loans and advances	5050	6096	7900	10136	14083
Loan & advance/deposit	**0.7543**	**0.7560**	**0.7823**	**0.7344**	**0.7744**
Growth rate		**0.0022**	**0.0349**	**-0.061**	**0.0545**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**

Deposit	21007	22010	24814	26490	30048
Loans and advances	10844	12919	13451	15761	17793
Loan & advance/deposit	**0.516**	**0.587**	**0.5421**	**0.595**	**0.5922**
Growth rate		**0.13706**	**-0.076**	**0.0976**	**-0.005**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	13448	14119	14587	19347	23342
Loans and advances	7756	8190	10586	12922	15545
Loan & advance/deposit	**0.5767**	**0.5801**	**0.7257**	**0.6679**	**0.666**
Growth rate		**0.0058**	**0.2511**	**-0.0797**	**-0.0029**

Source: NRB Annual Repotr,2003- 2007

4.1.2. Total investment to total deposit ratio:

This ratio can be calculated by dividing total investment by total deposit. It can be stated as.

$$\frac{\text{Investments}}{\text{Deposits}}$$

The total investment consists of government securities, investment on debentures and bonds, shares in subsidiary companies, shares in other companies and other investment.

The following table shows fluctuating investment pattern. HBL has invested higher than other bank, and NABIL bank has second position. Bigger banks do not depend on lending of its deposit, they foresee the future prospects in investments and take risk to uncertain venture that is why they invested as high as in investments however, lower level bank with small deposit base preferred lower investment and lent larger amount of deposit as loans and advances.

Table 3

Total Investment to total deposit

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	7923	11525	14255	18927	24489
Investments	1745	4172	4074	5672	6868
Investments/deposit	**0.2202**	**0.3620**	**0.2858**	**0.2997**	**0.2805**
Growth rate		**0.6436**	**-0.211**	**0.0486**	**-0.064**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposits	6695	8064	10098	13802	18186
Investments	1654	2536	2129	4201	4985
Investments/deposit	**0.2471**	**0.3145**	**0.2108**	**0.3044**	**0.2741**
Growth rate		**0.2730**	**-0.33**	**0.4437**	**-0.099**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	21007	22010	24814	26490	30048
Investments	10175	9292	11692	10889	11822
Investments/deposit	**0.484**	**0.422**	**0.4712**	**0.4111**	**0.3934**
Growth rate		**-0.1284**	**0.1161**	**-0.128**	**-0.043**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	13448	14119	14587	19347	23342
Investments	6031	5835	4267	6178	8945
Investments/deposit	**0.4485**	**0.4133**	**0.2925**	**0.3193**	**0.3832**
Growth rate		**-0.0785**	**-0.2922**	**0.0916**	**0.2001**

Source: NRB Annual Report,2003- 2007

4.1.3 Return on total deposit ratio

This ratio measures the degree of NPAT earned by using total deposits. In other words, it reveals the relationship between NPAT and total deposits with an explanation of the ability of management in efficient utilization of deposits. This ratio is the mirror of bank's overall financial performance as well as its success in profit generation. The reason is that deposits and earning from its utilization are the main aspects of Nepalese Commercial Banks.

Return on total deposit ratio can be computed by using following formula:

$$\text{Return on total Deposit ratio} = \frac{\text{Net profit after tax}}{\text{Deposits}}$$

Here, NPAT denotes Net Profit after Tax whereas Total deposits denotes all types of deposits shown in the balance sheet.

The following table represents return on total deposit of NIBL, EBL, HBL and NABIL. NABIL bank mobilized its deposits more effectively than other three banks, however, its decreasing growth rates. The ratio of NIBL showed second position but it has been steady increasing trend. EBL showed decreasing trend in 2005 and2006 but after that increased in 2007. HBL showed comparatively better that EBL but after 2006 it showed decrease.

Table 4

Return on total deposit

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	7923	11525	14255	18927	24489
Net profit after tax	116	152	232	350	501
NPAT/deposit	**0.0146**	**0.0132**	**0.0163**	**0.0185**	**0.0205**
Growth rate		**-0.099**	**0.234**	**0.1362**	**0.1063**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	6695	8064	10098	13802	18186

Net profit after tax	94	144	171	137	296
NPAT/deposit	0.0140	0.0179	0.0169	0.0099	0.0163
Growth rate		**0.2718**	**-0.052**	**-0.414**	**0.6397**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	21007	22010	24814	26490	30048
Net profit after tax	212	263	308	457	491
NPAT/deposit	**0.01**	**0.012**	**0.0124**	**0.0173**	**0.0163**
Growth rate		**0.184**	**0.0388**	**0.3899**	**-0.053**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Deposit	13448	14119	14587	19347	23342
Net profit after tax	416	455	520	635	573
NPAT/deposit	**0.0309**	**0.0322**	**0.0356**	**0.0328**	**0.0245**
Growth rate		**0.0418**	**0.1062**	**-0.079**	**-0.2521**

Source: NRB Annual Report,2003- 2007

4.1.4 Interest earned to total assets ratio:

This ratio reveals how much interest mobilizing the assets in the banks has generated. Interest occupies significant place in income for the banks. Generally, banks earn interest through the provision of loans and advances, overdraft and investments in securities.

Higher ratio indicates higher efficiency in the mobilization of resources and ability of interest earning and vice-versa.

This ratio is found by following way;

$$\text{Interest earned to total Assets ratio} = \frac{\text{Interest earned}}{\text{Total assets}}$$

Where,

Interest earned represents the total interest earned in income statement of bank.

The following table shows the ratio of interest earned to total deposits of NIBL, EBL, HBL and NABIL. The data shows EBL had good figures as it earned as high as 6.84% of total assets but showed steady decrease over the year to 5.3% in the last year of study. Similarly NABIL which lies slightly below EBL, also showed steady over the year as it slipped to 5.8% from 6.2%. Other NBL & HBL has highest 5.7 and 5.5 and lowest 5.0 & 5.0 respectively. The ratio of EBL HBL and NABIL banks are decreasing while NIBL is increasing

Table 5

Interest earn to total assets

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Total assets	9014	13255	16054	21330	27591
Interest earned	459	731	886	1172	1584
Interest earned/total assets	**0.0509**	**0.0551**	**0.0552**	**0.0549**	**0.0574**
Growth rate		**0.0830**	**0.0007**	**-0.0044**	**0.0448**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Total assets	8052	9608	11732	15959	21432
Interest earned	520	657	719	903	1144
Interest earned/total assets	**0.0646**	**0.0684**	**0.0613**	**0.0566**	**0.05338**
Growth rate		**0.0588**	**-0.104**	**-0.077**	**-0.0566**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**

Total assets	23299	24762	27418	29460	33519
Interest earned	1201	1245	1446	1626	1775
Interest earned/total assets	**0.0515**	**0.0503**	**0.0527**	**0.0552**	**0.05296**
Growth rate		**-0.0246**	**0.0489**	**0.0465**	**-0.0406**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Total assets	16563	16745	17064	22330	27253
Interest earned	1018	1002	1069	1309	1587
Interest earned/total assets	**0.0615**	**0.0598**	**0.0626**	**0.0586**	**0.05823**
Growth rate		**-0.0264**	**0.0469**	**-0.064**	**-0.0066**

Source: NRB Annual Report,2003- 2007

4.1.5. Interest coverage ratio

The interest coverage ratio also call time interest earned ratio. This ratio measures the extent to which interest on debt capital is covered by EBIT. It is the measure of debt serving capacity/ability to make interest on long term debt. The higher the ratio, the better able is firm to fulfill its interest obligation. This ratio is calculated as follows.

$$\text{Interest coverage ratio} = \frac{\text{Earning before interest \& tax}}{\text{Interest}}$$

The following table shows the interest coverage ratio of NIBL, EBL, HBL & NABIL has maintained comparatively higher interest coverage ratio than other. The figures of NIBL went lower then 2 times in 2004 & 2005 which is totally undesirable figure but the last two succeeding year showed steady growth from 2.02 to 2.05. the figures of EBL went lower than 2 times in all year of study but steady increasing. The figure of HBL also went lower than 2 tiem in 2003, 2004, 2005 & 2007, which is not sufficient to desirable standard. The figure of NABIL

constantly raised its ratio from 2.94 to 4.10 and after that it has also decreasing trend. NABIL enjoyed grater interest coverage ratio as compare to other three banks.

Table 6

Interest coverage ratio

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest	159	326	354	491	685
Earning before interest & tax	359	557	687	996	1408
Interest coverage ratio	**2.2579**	**1.7086**	**1.9407**	**2.0285**	**2.0555**
Growth rate		**-0.2433**	**0.1358**	**0.0453**	**0.0133**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest	308	316	299	401	517
Earning before interest & tax	444	527	552	746	971
Interest coverage ratio	**1.4416**	**1.6677**	**1.8462**	**1.8603**	**1.87814**
Growth rate		**0.1569**	**0.107**	**0.0077**	**0.00956**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest	554	491	561	648	767
Earning before interest & tax	913	911	1083	1312	1484
Interest coverage ratio	**1.6480**	**1.8554**	**1.9305**	**2.0247**	**1.93481**
Growth rate		**0.1258**	**0.0405**	**0.0488**	**-0.0444**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest	317	283	244	357	555

Earning before interest & tax	933	940	1001	1255	1549
Interest coverage ratio	**2.9432**	**3.3216**	**4.1025**	**3.5154**	**2.79099**
Growth rate		**0.1285**	**0.2351**	**-0.143**	**-0.2061**

Source: NRB Annual Report,2003- 2007

4.1.6 Net interest margin (NIM)

NIM is the different between interest charged on loan & advances and investments and interest paid on the deposits of the bank. This ratio is derived by employing the following formula.

$$NIM = \frac{\text{Interest Income – Interest expense}}{\text{Loans and advances + Investment on securities}}$$

The following table shows the net interest margin for NIBL, EBL, HBL & NABIL. HBL has bigger and higher interest and net interest margin as compare to NIBL, EBL & NABIL. The ratio is at the decreasing trend but has maintained higher rate at 1.6% at the least in the 2007, other are 9.6%, 2.0%, 5.0%, 2.0% in 2003, 2004, 2005 & 2006 respectively. While NABIL bank in maintained second position lies between 1.3% and 4.00% in continuously decreasing over the year. EBL showed .95% in 2004 and after that decaling trend. NIBL maintained higher in 2005 and slightly decline there after.

Table 7

Net interest margin

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	459	731	886	1172	1584
Interest Expenses	189	326	354	491	685
Loan and Advances	5921	7338	10453	13178	17769

Investment	1745	4172	4074	5672	6868
Net Interest margin	**0.0352**	**0.0352**	**0.0366**	**0.0361**	**0.0365**
Growth rate		**-0.0010**	**0.0408**	**-0.0135**	**0.0100**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	520	657	719	903	1144
Interest Expenses	308	316	299	401	517
Loan and Advances	5049	6096	7900	10136	14083
Investment	1654	2536	2129	4201	4985
Net Interest margin	**0.0624**	**0.0958**	**0.0728**	**0.0846**	**0.0689**
Growth rate		**0.5339**	**-0.2402**	**0.1622**	**-0.1852**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	1201	1245	1446	1626	1775
Interest Expenses	554	491	561	648	767
Loan and Advances	10844	12919	13451	15761	17793
Investment	10175	9292	11692	10889	11822
Net Interest margin	**0.967**	**0.208**	**0.503**	**0.201**	**0.169**
Growth rate		**-0.78504**	**1.4202**	**-0.601**	**-0.159**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	1018	1002	1069	1309	1587
Interest Expenses	317	283	244	357	555
Loan and Advances	7756	8190	10586	12922	15545
Investment	6031	5835	4267	6178	8945
Net Interest margin	**0.4063**	**0.3053**	**0.1306**	**0.1412**	**0.1564**
Growth rate		**-0.2487**	**-0.5724**	**0.0812**	**0.1077**

Source: NRB Annual Report,2003- 2007

4.1.7. Analysis of Net interest income

Net interest income is the difference between the interest earned and interest paid. It is the excess of interest income over interest expenses borne by the bank. Higher the spread between interest income and interest expense shows the effective and efficient mobilization of deposits.

The table below shows the net interest income of commercial, which is calculated as.

Net interest income = Interest from assets – Interest paid to liabilities

The following table shows the net interest income of NIBL, EBL, HBL & NABIL. NABIL bank has maintained comparatively higher net interest income than other three banks. NABIL showed 1032 million in 2007 and lower 401 in 2003 like wise HBL has maintained in high 1008 in 2007 and low 647 in 2003. EBL showed 627 million high in 2007 and 212 in 2003, and NIBL has showed 899 high in 2007 and 270 low in 2003 but it has maintained highest growth rate.

Table 8

Net interest income

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	459	731	886	1172	1584
Interest Expenses	189	326	354	491	685
Net Interest Income	**270**	**405**	**532**	**681**	**899**
Growth rate		**0.5000**	**0.3136**	**0.2801**	**0.3201**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	520	657	719	903	1144
Interest Expenses	308	316	299	401	517
Net Interest Income	**212**	**341**	**420**	**502**	**627**
Growth rate		**0.6085**	**0.2317**	**0.1952**	**0.2490**
Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	1201	1245	1446	1626	1775
Interest Expenses	554	491	561	648	767

Net Interest Income	**647**	**754**	**885**	**978**	**1008**
Growth rate		**0.165378671**	**0.1737**	**0.1051**	**0.0307**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	1018	1002	1069	1309	1587
Interest Expenses	317	283	244	357	555
Net Interest Income	**701**	**719**	**825**	**952**	**1032**
Growth rate		**0.0257**	**0.1474**	**0.1539**	**0.0840**

Source: NRB Annual Report,2003- 2007

4.1.8. Analysis of Effective Interest rate

Effective interest rate is the percentage of interest earned over interest earning assets. This indicates the earning capacity of earning assets. In this study, earning assets of commercial banks is taken as loans and advance and investment in shares and debentures.

Effective interest rate is calculated by using following formula.

$$\text{Effective interest rate } (\lambda) = \frac{\text{Interest earned}}{\text{Interest earning assets}}$$

The following table shows effective interest rate of NIBL, EBL HBL & NABIL. Effective Interest rates of all banks decreased excessively except NIBL. NIBL showed 6.0%, 6.4%, 6.1%, 6.2% & 6.4% in 2003, 2004, 2005, 2006 & 2007 respectively. EBL showed 7.8%, 7.6%, 7.2%, 6.3% & 6.0% in 2003, 2004, 2005, 2006 & 2007 respectively. Like wise rate of HBL has been 5.7%, 5.6%, 5.8%, 6.1%, &6.0% in 2003, 2004, 2005, 2006 & 2007 respectively. NABIL showed 7.4%, 7.1%, 7.2%, 6.9 & 6.5 in, 2005, 2006 & 2007 respectively.

Table 9

Effective interest rate

(Rs. In million)

Investment Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	459	731	886	1172	1584
Loan and Advances	5921	73	10453	13178	17769
Investment	1745	4172	4074	5672	6868
Effective interest rate	**0.060**	**0.064**	**0.061**	**0.062**	**0.064**
Growth rate		**0.0607**	**-0.0397**	**0.0194**	**0.0341**
Everest Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	520	657	719	903	1144
Loan and Advances	5049	6096	7900	10136	14083
Investment	1654	2536	2129	4201	4985
Effective interest rate	**0.078**	**0.076**	**0.072**	**0.063**	**0.060**
Growth rate		**-0.0189**	**-0.0581**	**-0.1215**	**-0.0474**

(Rs. In million)

Himalayan Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	1201	1245	1446	1626	1775
Loan and Advances	10844	12919	13451	15761	17793
Investment	10175	9292	11692	10889	11822
Effective interest rate	**0.057**	**0.056**	**0.058**	**0.061**	**0.060**
Growth rate		**-0.0190**	**0.0260**	**0.0609**	**-0.0177**
NABIL Bank Limited					
Year	**2003**	**2004**	**2005**	**2006**	**2007**
Interest Income	1018	1002	1069	1309	1587
Loan and Advances	7756	8190	10586	12922	15545
Investment	6031	5835	4267	6178	8945
Effective interest rate	**0.074**	**0.071**	**0.072**	**0.069**	**0.065**
Growth rate		**-0.0324**	**0.0074**	**-0.0478**	**-0.0545**

Source: NRB Annual Report,2003- 2007

4.1.9. Analysis of Interest rate Spread

Interest rate spread is difference in rate at which bank earn through investments and rate offered in attracting deposits and borrowings. In other words, rate of interest income on loan and investments less rate of interest expenses on deposits and borrowings. Higher the spread in rate higher will be income of the bank.

The following table shows the interest spread of NIBL, EBL, HBL & NABIL.NABIL bank enjoyed highest interest spread among NIBL, EBL, & HBL. It maintained above 4% over five years periods even 5% in 2005. It maintained highest average interest spread of five years at 4.65. Slightly lower is NIBL but it has maintained above 3.9% and 5.98% in 2004 even and It has maintained 5 years average at 4.59%. EBL in another end showed high fluctuations in rate it had low 2.6% in 2003 and high 4.1% in 2005. it has maintained 3.725 at 5 years average. HBL has maintained 5 years average at 3.42% and high 3.8% in 2006 and low 3.19% in 2005.

Table 10

Interest rate spread

Year	**NIBL**	**EBL**	**HBL**	**NABIL**
2003	4.8	2.6	3.33	4.51
2004	5.98	4	3.25	4.46
2005	4.3	4.1	3.19	5.01
2006	3.9	4	3.8	4.9
2007	3.99	3.9	3.57	4.15
Average	**4.594**	**3.72**	**3.428**	**4.606**

Source: NRB Annual Report,2003- 2007

The following graphical represent of interest rate spread of NIBL, EBL, HBL & NABIL. Trend line of NIBL showed slope line inclined up to 5.98 in 2004 than following up to 3.9 in 2006. EBL showed dramatic growth on interest spread in 2005 at 4.1% and after that declined. HBL and NABIL showed a bit normal line through it increased and decreased in succeeding. The line of HBL went up to

3.85 in 2006 then declined slightly. NABIL showed steady upwards 5.01 in 2005 and after that it showed declining trend.

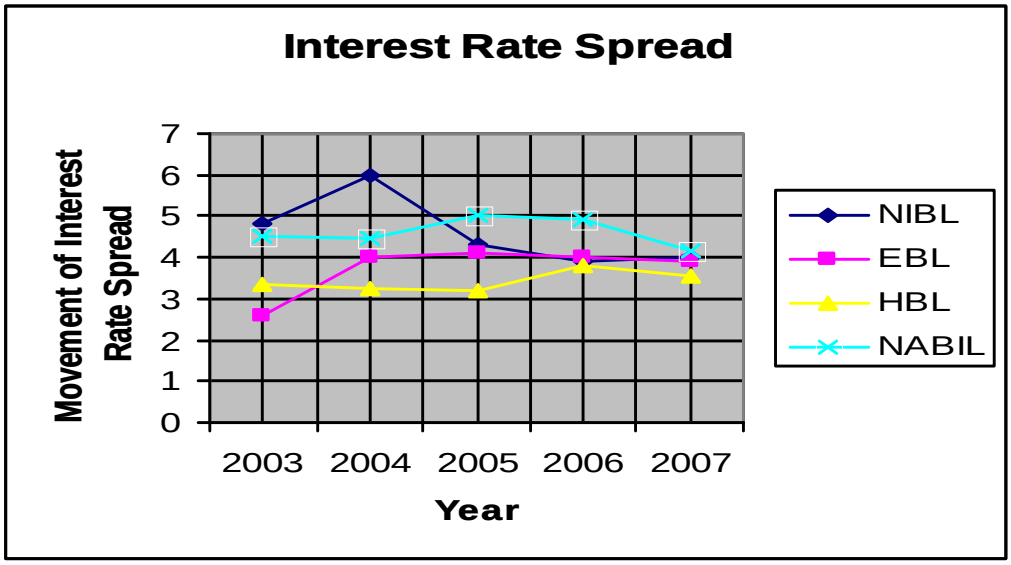

Figure no. 1

4.1.10. Growth ratio

Growth ratios are directly related to the deposit mobilization and investment management of a commercial bank. Growth ratio represents how well the commercial bank maintaining its performance. Higher the ratios better the performance of the bank and voce-versa. The equation of the growth ratio is given by.

$A_n = A_o (1+g)^{nZ1}$

Where,

A_n = Total amount in the n year

A_o =Total amount in the initial year

g = Growth rate of the amount during the study period.

n = Total no. of study period

To examine and analysis following growth ratios are calculated in this study.

4.1.10.1. Growth ratio of total deposit

The following table shows the growth ratio of total deposit of NIBL, EBL, HBL & NABIL from 2003 to 2007. HBL and NABIL having huge deposit based

showed 9.4% and 14.8% growth rate in total deposit. HBL and NABIL reached respectively 30 and 23 billion in the year 2007. NIBL maintained 32.6% growth over 5 year period, while EBL maintained 28.4% of growth for the same period. The deposit collection for last year of NIBL and EBL were respectively 24 and 18 billion.

Table 11

Total Deposit

				(Rs. In million)
Year	**NIBL**	**EBL**	**HBL**	**NABIL**
2003	7923	6695	21007	13448
2004	11525	8064	22010	14119
2005	14255	10098	24814	14587
2006	18927	13802	26490	19347
2007	24489	18183	30048	23342
Growth rate %	0.326	0.284	0.094	0.148

Source: NRB Annual Report,2003- 2007

We also can see following diagram to understand about the total deposit position & growth rate of all four banks comparatively.

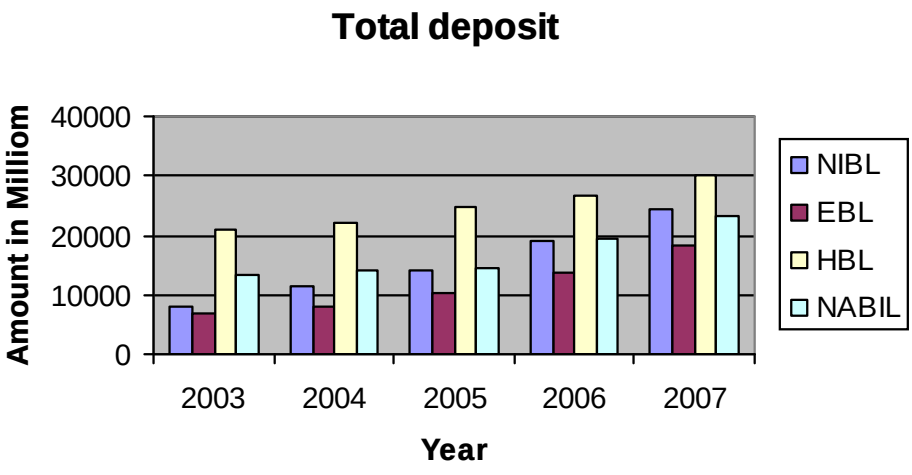

Figure no. 2

4.1.10.2 Growth ratio of Loan and Investment

The following table shows the growth ratio of loan and investment from 2003 to 2007. The growth ratio for NIBL for the period of five year was 33.9% on

the contrary its growth ratio for deposit for same period was 32.6%. Similarly ratio for EBL also exceed than deposit growth ratio maintained at 31.4%. Total loan and investment disbursed by NIBL and EBL for the last year were respectively 12 and19 billion. HBL and NABIL relatively had 8.9% and 15.4% loan and investment growth rate over 5 year period. Total loan and investment for HBL and NABIL reached 29 and 24 billion in 2007 respectively.

Table 12

Total Loan and Investment

				(Rs. In million)
Year	**NIBL**	**EBL**	**HBL**	**NABIL**
2003	7666	6403	21019	13787
2004	11510	8632	22211	14025
2005	14527	10029	25143	14853
2006	18850	14337	26650	19100
2007	24637	19068	29615	24490
Growth rate %	0.339	0.314	0.089	0.154

Source: NRB Annual Report,2003- 2007

We also can see following diagram to know about the total loan and investment and its growth rate over 5 year period of all four banks.

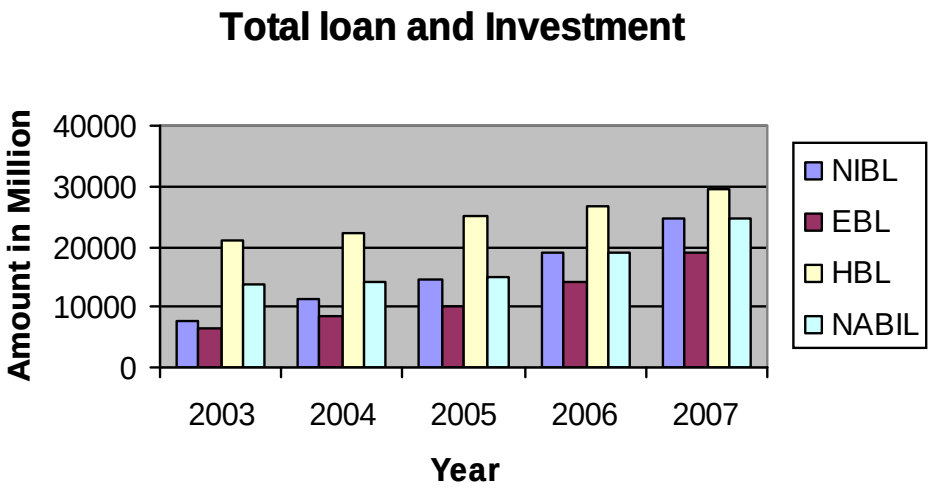

Figure no. 3

4.1.10.3 Growth ratio of Interest Income

The following table shows the growth ratio of interest income of NIBL, EBL, HBL & NABIL from 2003 to 2007. NIBL and EBL both maintained growth rate for 36.3% and 21.8% respectively over five year period. Interest income of NIBL and EBL reached 1.5 and 1.1 billion respectively in the last year. While HBL and NABIL maintained 10.3% and 11.7% growth rate respectively over 5 year period and reached 1.7 and 1.5 billion interest income in the last year.

Table 13

Interest Income

(Rs. In million)

Year	**NIBL**	**EBL**	**HBL**	**NABIL**
2003	459	520	1201	1018
2004	731	657	1245	1002
2005	886	719	1446	1069
2006	1172	903	1626	1309
2007	1584	1144	1775	1587
Growth rate %	0.363	0.218	0.103	0.117

Source: NRB Annual Report,2003- 2007

The following diagram shows that the total interest income and growth position of NIBL, EBL, HBL & NABIL from 2003 to 2007.

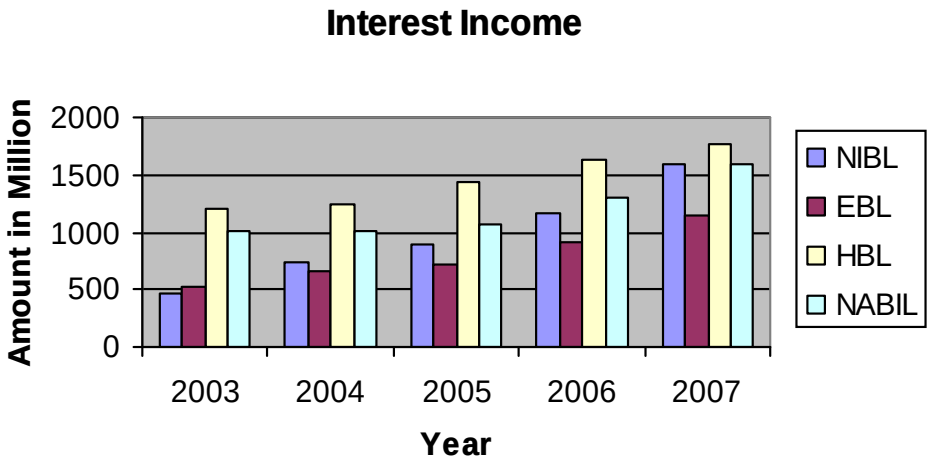

Figure no. 4

4.1.10.4. Growth ratio of Interest Expenses

The following table shows the growth ratio of interest expenses of NIBL, EBL, HBL & NABIL from 2003 to 2007. NIBL and EBL showed growth rate of interest expenses 38% and 13.8% respectively for the five year period and reached 685 and 517 million in last year respectively. While HBL and NABIL had 8.5% and 15.5 % growth rate over 5 year period and reached interest expenses 767 and 555 million in last year.

Table 14

Interest Expenses

				(Rs. In million)
Year	**NIBL**	**EBL**	**HBL**	**NABIL**
2003	189	308	554	317
2004	326	316	491	283
2005	354	299	561	244
2006	491	401	648	357
2007	685	517	767	555
Growth rate %	0.380	0.138	0.085	0.150

Source: NRB Annual Report,2003- 2007

We can also see the following diagram to know about the interest expenses over five year period and growth rate of its of four banks.

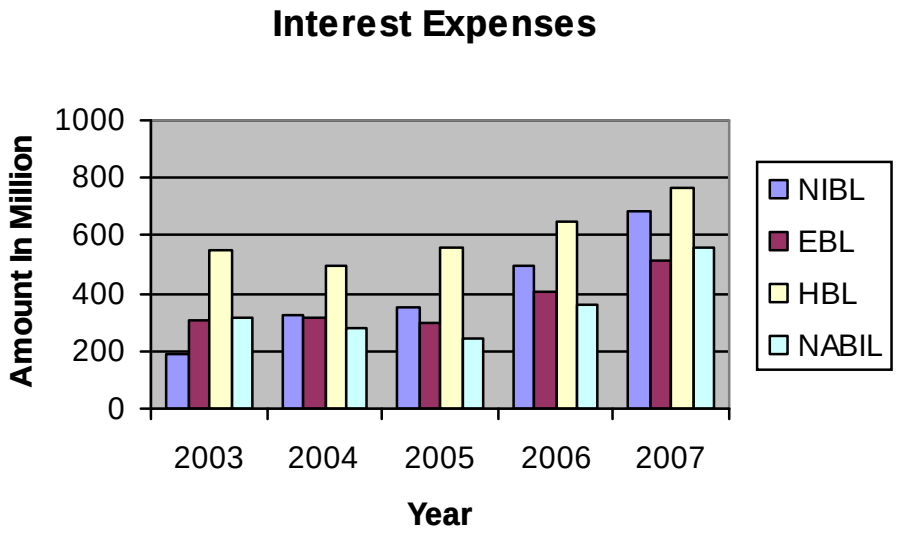

Figure no. 5

4.2 Statistical Calculation

Table 15

Co-efficient of correlation between Average Deposit Interest Rate and Deposit of NIBL.

Rs. In Million

Year	Int. Rate(X)	Deposit(Y)	dx =(X - $\bar{X}$)	dx^2	dy = (Y- $\bar{Y}$)	dy^2	dxdy
2004	5.1	11525	1.7825	9.09075	-5774	-66545350	-10292.155
2005	2.75	14255	-0.5675	-1.5606	-3044	-43392220	1727.47
2006	2.71	18927	-0.6075	-1.6463	1628	30813156	-989.01
2007	2.71	24489	-0.6075	-1.6463	7190	176075910	-4367.925
N = 4	**13.27**	**69196**	**0**	**4.23748**	**0**	**96951496**	**-13921.62**

Source: NIBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{13.27}{4} = 3.3175$$

$\bar{Y} = \frac{69196}{4} = 17299$

Correlation coefficient 'r' can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{\text{Z13921.62}}{\sqrt{4.23748 X 96951496}}$$

$$= \frac{\text{Z13921.62}}{20269.79} = -0.6868$$

$r^2 = 0.4718$

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 \text{Z} r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 \text{Z} 0.4718}{\sqrt{4}}$$

= .6745 x 0.2641

= 0.1781

6PE(r) = 6 x 0.1781

=1.0686

Table 16

Co-efficient of correlation between Average Deposit Interest Rate and Deposit of EBL.

Rs. In Million

Year	Int.Rate(X)	Deposit(Y)	dx =(X - $\bar{X}$)	dx^2	dy = (Y- $\bar{Y}$)	dy^2	dxdy
2004	4.75	8064	1.2075	5.73563	-4473.5	-36074304	-5401.7513
2005	2.96	10098	-0.5825	-1.7242	-2439.5	-24634071	1421.00875
2006	3.18	13802	-0.3625	-1.1528	1264.5	17452629	-458.38125
2007	3.28	18186	-0.2625	-0.861	5648.5	102723621	-1482.7313
N = 4	**14.17**	**50150**	**0**	**1.99768**	**0**	**59467875**	**-5921.855**

Source: EBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{14.17}{4} = 3.5425$$

$$\bar{Y} = \frac{50150}{4} = 12537.5$$

Correlation coefficient ‘r’ can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{\text{Z}5921.855}{\sqrt{1.9977 X 59467875}}$$

$$= \frac{\text{Z}5921.855}{10899.44} = -0.5433$$

$r^2 = 0.2952$

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 \text{Z} r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 \text{Z} 0.2952}{\sqrt{4}}$$

$$= 0.2377$$

$$6\text{PE}(r) = 6 \text{ x } 0.2377$$

$$= 1.4262$$

Table 17

Co-efficient of correlation between Average Deposit Interest Rate and Deposit of HBL.

Rs. In Million

Year	Int.Rate(X)	Deposit(Y)	dx =(X - $\bar{X}$)	dx^2	dy = (Y- $\bar{Y}$)	dy^2	dxdy
2004	4.23	22010	1.145	4.84335	-3830.5	-84309305	-4385.9225
2005	2.78	24814	-0.305	-0.8479	-1026.5	-25471571	313.0825
2006	2.68	26490	-0.405	-1.0854	649.5	17205255	-263.0475
2007	2.65	30048	-0.435	-1.1528	4207.5	126426960	-1830.2625
N = 4	**12.340**	**103362**	**0**	**1.7573**	**0**	**33851339**	**-6166.15**

Source: HBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{12.340}{4} = 3.085$$

$$\bar{Y} = \frac{103362}{4} = 25840.5$$

Correlation coefficient 'r' can be calculated by using following formula

$$r = \frac{\Sigma dxdy}{\sqrt{\Sigma dx^2 \; \Sigma dy^2}} = \frac{\Sigma 6166.15}{\sqrt{1.7571 X 33851339}}$$

$$= \frac{\Sigma 6166.15}{7712.34} = -0.7995$$

$$r^2 = 0.6392$$

$$\text{P.E.} = 0.6745 \times \frac{1 - \Sigma r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - \Sigma 0.6392}{\sqrt{4}}$$

$$= .6745 \times 0.2641$$

$$= 0.1217$$

6PE(r) = 6 x 0.1217

=0.7301

Table 18

Co-efficient of correlation between Average Deposit Interest Rate and Deposit of NABIL.

Rs. In million

Year	Int.Rate(X)	Deposit(Y)	dx =(X - $\overline{X}$)	dx^2	dy = (Y- $\overline{Y}$)	dy^2	dxdy
2004	2.9	14119	-0.2075	-0.6018	-3729.75	-52660340	773.923125
2005	3.32	14587	0.2125	0.7055	-3261.75	-47579147	-693.12188
2006	3.31	19347	0.2025	0.67028	1498.25	28986643	303.395625
2007	2.9	23342	-0.2075	-0.6018	5493.25	128223442	-1139.8494
N = 4	**12.430**	**71395**	**0**	**0.17228**	**0**	**56970597**	**-755.6525**

Source: NABIL Annual Report,2003- 2007

We have,

N = 4

$$\overline{X} = \frac{12.43}{4} = 3.1075$$

$$\overline{Y} = \frac{71395}{4} = 17848.75$$

Correlation coefficient ‘r’ can be calculated by using following formula

$$r = \frac{\Sigma dxdy}{\sqrt{\Sigma dx^2 \; \Sigma dy^2}} = \frac{\Sigma 755.6525}{\sqrt{0.17228 X 5697059.75}}$$

$$= \frac{\Sigma 755.6525}{3132.8732} = -0.2412$$

$r^2 = 0.0582$

$$P.E. = 0.6745 \times \frac{1 Z r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 Z 0.0582}{\sqrt{4}}$$

= .6745 x 0.0291

= 0.0196

6PE(r) = 6 x 0.0196

=0.1177

Correlation coefficient between average deposit interest rate and total deposit

total The following table shows the deposit interest and total deposit of NIBL, EBL, HBL, and NABIL.

Table 19

Interest rate and deposit

Rs. In Million

	NIBL		EBL		HBL		NABIL	
year	Int.Rate	Deposit	Int.Rate	Deposit	Int.Rate	Deposit	Int.Rate	Deposit
2004	5.1	11525	4.75	8064	4.23	22010	2.9	14119
2005	2.75	14255	2.96	10098	2.76	24814	3.32	14587
2006	2.71	18927	3.18	13802	2.68	26490	3.31	19347
2007	2.71	24489	3.28	18186	2.65	30048	2.9	23342

Source: NRB Annual Report,2003- 2007

The following table shows the relationship between deposit interest rate and total deposit. The objective of calculating r is whether deposit interest rate has the relationship to deposit collection or not.

Table 20

Summary of calculation

BANKS	Evaluation Criterion			
	r	r^2	P.E.(r)	6P.E.(r)
NIBL	-0.6868	0.4718	0.1781	1.0686
EBL	-0.5433	0.2952	0.2377	1.4262
HBL	-0.7995	0.6392	0.1217	0.7301
NABIL	-0.2412	0.0582	0.0196	0.1177

We Have interest rate (independent variable) and deposit amount (dependent variable) from the above table. We can conclude that all the banks have negative correlation i.e., interest rate and amount deposits are negatively correlated. While testing the significant of r i.e., P.E. we find that P.E.(r) of all banks have higher value than r. It proved to be insignificant on r is less then P.E. Hence it can be concluded that there is no significant relationship between deposit interest rate and deposits of these banks.

Table 21

Co-efficient of correlation between Average Landing Interest Rate and Lending of NIBL.

Rs. in million

Year	**Int.Rate(X)**	**Loan(Y)**	**dx =(X - $\bar{X}$)**	**dx^2**	**dy = (Y- $\bar{Y}$)**	**dy^2**	**dxdy**
2004	13.13	7339	2.0475	26.88367	-4020.75	-29508284	-8232.4856
2005	10.4	10453	-0.6825	-7.098	-906.75	-9478257	618.856875
2006	10.4	13178	-0.6825	-7.098	1818.25	23960899	-1240.9556
2007	10.4	14469	-0.6825	-7.098	3109.25	44987738	-2122.0631
N = 4	44.33	45439	0	5.58967	0	29962095	-10976.648

Source: NIBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{44.33}{4} = 11.0825$$

$$\bar{Y} = \frac{45439}{4} = 11359.75$$

Correlation coefficient 'r' can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{\text{Z10976.648}}{\sqrt{5.58968 X 29962094.75}}$$

$$= \frac{\text{Z10976.648}}{12941.3725} = - 0.8482$$

r^2 =0.7196

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 Z r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 Z 0.7196}{\sqrt{4}}$$

= .6745 x 0.1403

= 0.0946

6PE(r) = 6 x 0.0946

=0.5678

Table 22

Co-efficient of correlation between Average Landing Interest Rate and Lending of EBL.

Year	Int. Rate(X)	Loan(Y)	dx =(X - $\bar{X}$)	dx^2	dy=(Y- $\bar{Y}$)	dy^2	dxdy
2004	11.9	6096	1.3925	16.5707	-3457.75	-21078444	-4814.9169
2005	10.6	7900	0.0925	0.9805	-1653.75	-13064625	-152.9719
2006	9.62	10136	-0.8875	-8.5377	582.25	5901686	-516.7469
2007	9.91	14083	-0.5975	-5.92122	4529.25	63785427.8	-2706.2269
N = 4	42.03	38215	0	3.09227	0	35544044.8	-8190.8625

Source: EBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{42.03}{4} = 10.5075$$

$$\bar{Y} = \frac{38215}{4} = 9553.75$$

Correlation coefficient ‘r’ can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{\text{Z}8190.8625}{\sqrt{3.0923X\,35544044.75}}$$

$$= \frac{\text{Z}8190.8625}{10483.9329} = -\,0.7813$$

r^2 =0.6104

$$\text{P.E.} = 0.6745 \text{ X } \frac{1\text{Z}r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1\text{Z}0.6104}{\sqrt{4}}$$

= .6745 x 0.1948

= 0.1314

6PE(r) = 6 x 0.1314

=0.7884

Table 23

Co-efficient of correlation between Average Landing Interest Rate and Lending of HBL.

Rs. In million

Year	Int.Rate(X)	Loan(Y)	dx=(X - $\bar{X}$)	dx²	dy=(Y- $\bar{Y}$)	dy²	dxdy
2004	11.92	12919	1.1225	13.3802	-2062	-26638978	-2314.595
2005	10.85	13451	0.0525	0.56962	-1530	-20580030	-80.325
2006	10.85	15761	0.0525	0.56962	780	12293580	40.95
2007	9.57	17793	-1.2275	-11.747	2812	50033916	-3451.73
N = 4	43.19	59924	0	2.77227	0	15108488	-5805.7

Source: HBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{43.19}{4} = 10.7975$$

$$\bar{Y} = \frac{59924}{4} = 14981$$

Correlation coefficient ‘r’ can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2}\ \ \mathbf{dy^2}}} = \frac{\text{Z}5805.7}{\sqrt{2.772275 X 15108488}}$$

$$= \frac{\text{Z}5805.7}{6471.8824} = -0.8971$$

$$r^2 = 0.8047$$

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - 0.8047}{\sqrt{4}}$$

$= .6745 \times 0.0976$

$= 0.0659$

$6PE(r) = 6 \times 0.0659$

$= 0.3951$

Table 24

Co-efficient of correlation between Average Landing Interest Rate and Lending of NABIL.

Rs. In million

Year	Int.Rate(X)	Loan(Y)	dx=(X-$\bar{X}$)	dx^2	dy=(Y-$\bar{Y}$)	dy^2	dxdy
2004	10.66	8190	0.2375	2.53175	-3620.75	-29653943	-859.9281
2005	10.58	10586	0.1575	1.66635	-1224.75	-12965204	-192.8981
2006	10.54	12922	0.1175	1.23845	1111.25	14359572.5	130.5719
2007	9.91	15545	-0.5125	-5.078875	3734.25	58048916.3	-1913.8031
N = 4	41.69	47243	0	0.357675	0	29789342.8	-2836.0575

Source: NABIL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{41.69}{4} = 10.4225$$

$$\bar{Y} = \frac{47243}{4} = 11810.75$$

Correlation coefficient ‘r’ can be calculated by using following formula

$$r = \frac{\sum dxdy}{\sqrt{\sum dx^2 \sum dy^2}} = \frac{-2836.0575}{\sqrt{0.357675 \times 29789342.75}}$$

$$= \frac{Z2836.0575}{3264.2077} = -0.8688$$

$r^2 = 0.7549$

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 Z r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 Z 0.7549}{\sqrt{4}}$$

= .6745 x 0.1226

= 0.0827

6PE(r) = 6 x 0.0827

=0.4960

Correlation coefficient between average lending interest rate and total lending

The following table shows the Lending interest and total Lending of NIBL, EBL, HBL, and NABIL.

Table 25

Interest rate and total lending

	NIBL		EBL		HBL		NABIL	
year	Int.Rate	Loan	Int.Rate	Loan	Int.Rate	Loan	Int.Rate	Loan
2004	13.13	7339	11.9	6096	11.92	12919	10.66	8190
2005	10.4	10453	10.6	7900	10.85	13451	10.58	10586
2006	10.4	13178	9.62	10136	10.85	15761	10.54	12922
2007	10.4	14469	9.61	14083	9.57	17793	9.91	15545

Source: NRB Annual Report,2003- 2007

The following table shows the relationship between Lending interest rate and total Lending. The objective of calculating r is whether Lending interest rate has the relationship to Loan Disbursement or not.

Table 26

Summary of calculation

BANKS	Evaluation Criterion			
	r	r^2	P.E.(r)	6P.E.(r)
NIBL	-0.8482	0.7196	0.0946	0.5678
EBL	-0.7813	0.6104	0.1314	0.7884
HBL	-0.8971	0.8047	0.0659	0.3951
NABIL	-0.8688	0.7549	0.0827	0.496

From the above table, it has been found that correlation coefficient between lending interest rate(independent variable) and total lending amount (dependent variable) of NIBL, EBL, HBL & NABIL have negative correlation i.e. Lending interest rate is decreased but lending amount is in increasing trend. At the same time while testing the significant of r i.e., P.E (r) all the banks have higher value than r. It proved to be insignificant as r in less than P.P. Hence it can be calculated that there in no significant relationship between lending interest rate and lending amount.

Table 27

Co-efficient of correlation between Interest Spread Rate and Net Profit After Tax of NIBL.

Rs. In million

Year	Int. Spread(X)	NPAT	dx=(X-$\bar{X}$)	dx^2	dy=(Y-$\bar{Y}$)	dy^2	dxdy
2004	5.98	152	1.4375	8.59625	-156.75	-23826	-225.32812
2005	4.3	232	-0.2425	-1.04275	-76.75	-17806	18.611875
2006	3.9	350	-0.6425	-2.50575	41.25	14437.5	-26.50312

2007	3.99	501	-0.5525	-2.204475	192.25	96317.25	-106.21812
N = 4	18.17	1235	0	2.843275	0	69122.75	-339.4375

Source: NIBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{18.17}{4} = 4.5425$$

$$\bar{Y} = \frac{1235}{4} = 308.75$$

Correlation coefficient 'r' can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{\text{Z}339.4375}{\sqrt{2.8433 X \, 69122.75}}$$

$$= \frac{\text{Z}339.4375}{443.3246} = -0.7657$$

$$r^2 = 0.5862$$

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 \text{Z} r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 \text{Z} 0.5862}{\sqrt{4}}$$

= .6745 x 0.2069

= 0.1395

6PE(r) = 6 x 0.1395

=0.8372

Table 28

Co-efficient of correlation between Interest Spread Rate and Net Profit After Tax of EBL.

Year	Int. Spread(X)	NPAT	dx=(X-$\bar{X}$)	dx²	dy=(Y-$\bar{Y}$)	dy²	dxdy
2004	4	144	0	0	-43	-6192	0
2005	4.1	171	0.1	0.41	-16	-2736	-1.6
2006	4	137	0	0	-50	-6850	0
2007	3.9	296	-0.1	-0.39	109	32264	-10.9
N = 4	16	748	0	0.02	0	16486	-12.5

Source: EBL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{16}{4} = 4$$

$$\bar{Y} = \frac{748}{4} = 187$$

Correlation coefficient 'r' can be calculated by using following formula

$$r = \frac{\Sigma dxdy}{\sqrt{\Sigma dx^2 \; \Sigma dy^2}} = \frac{Z12.5}{\sqrt{0.02 X 16486}}$$

$$= \frac{Z12.5}{18.1582} = -0.7049$$

$$r^2 = 0.4969$$

$$P.E. = 0.6745 \times \frac{1 - Zr^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1Z.4969}{\sqrt{4}}$$

$= .6745 \times 0.2515$

$= 0.1697$

$6PE(r) = 6 \times 0.1697$

$=1.0180$

Table 29

Co-efficient of correlation between Interest Spread Rate and Net Profit After Tax of HBL.

Year	Int.Spread(X)	NPAT	dx=(X-$\overline{X}$)	dx^2	dy=(Y-$\overline{Y}$)	dy^2	dxdy
2004	3.25	263	-0.2025	-0.65812	-116.75	-30705.25	23.64187
2005	3.19	308	-0.2625	-0.83737	-71.75	-22099	18.83437
2006	3.8	457	0.3475	1.3205	77.25	35303.25	26.84437
2007	3.57	491	0.1175	0.41947	111.25	54623.75	13.07187
N = 4	13.81	1519	0	0.24447	0	37122.75	82.3925

Source: HBL Annual Report,2003- 2007

We have,

N = 4

$$\overline{X} = \frac{13.81}{4} = 3.4525$$

$$\overline{Y} = \frac{1519}{4} = 379.75$$

Correlation coefficient ‘r’ can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{82.3925}{\sqrt{0.2445 X 37122.75}}$$

$$= \frac{82.3925}{95.2707} = 0.8648$$

$r^2 = 0.7479$

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 Z r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 Z 0.7479}{\sqrt{4}}$$

= .6745 x 0.1260

= 0.0850

6PE(r) = 6 x 0.0850

=0.5101

Table 30

Co-efficient of correlation between Interest Spread Rate and Net Profit After Tax of NABIL.

Rs. In Million

Year	Int.Spread(X)	NPAT	dx=(X-$\bar{X}$)	dx²	dy=(Y-$\bar{Y}$)	dy²	dxdy
2004	4.46	455	-0.17	-0.7582	-90.75	-41291.25	15.4275
2005	5.01	520	0.38	1.9038	-25.75	-13390	-9.785
2006	4.9	635	0.27	1.323	89.25	56673.75	24.0975
2007	4.15	573	-0.48	-1.992	27.25	15614.25	-13.08
N = 4	18.52	2183	0	0.4766	0	17606.75	16.66

Source: NABIL Annual Report,2003- 2007

We have,

N = 4

$$\bar{X} = \frac{18.52}{4} = 4.63$$

$$\bar{Y} = \frac{2183}{4} = 545.75$$

Correlation coefficient 'r' can be calculated by using following formula

$$r \text{ X} \frac{\mathbf{dxdy}}{\sqrt{\mathbf{dx^2} \quad \mathbf{dy^2}}} = \frac{16.66}{\sqrt{0.4766 X 17606.75}}$$

$$= \frac{16.66}{91.6045} = 0.1819$$

r^2 =0.0331

$$\text{P.E.} = 0.6745 \text{ X } \frac{1 Z r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 Z 0.0331}{\sqrt{4}}$$

= .6745 x 0.4835

= 0.3261

6PE(r) = 6 x 0.3261

=1.9566

Correlation coefficient between interest spread rate and net profit after tax

The following table shows the interest spread rate and net profit after tax of NIBL, EBL, HBL, and NABIL.

Table 31

Interest spread rate and NPAT

year	NIBL		EBL		HBL		NABIL	
	Int.Spr Rat	NPAT	Int.Spr Rat	NPAT	Int.Spr Rat	NPAT	Int.Spr Rat	NPAT
2004	5.98	152	4	144	3.25	263	4.46	455
2005	4.3	232	4.1	171	3.19	308	5.01	520
2006	3.9	350	4	137	3.8	457	4.9	635
2007	3.99	501	3.9	296	3.57	491	4.15	573

Source: NRB Annual Report,2003- 2007

The following table shows the relationship between interests spread rate and net profit after tax. The objective of calculating r is whether interest spread rate has the relation to earn net profit after tax or not.

Table 32

Summary of calculation

BANKS	Evaluation Criterion			
	r	r^2	P.E.(r)	6P.E.(r)
NIBL	-0.7657	0.5862	0.1395	0.8372
EBL	-0.7049	0.4969	0.1697	1.018
HBL	0.8648	0.7479	0.085	0.5101
NABIL	0.1819	0.0331	0.3261	1.9566

From the above table, it has been found that correlation coefficient between interest spread rate (independent variable) and net profit after tax (dependent variable) of NIBL, EBL, have negative correlation where at the same time HBL & NABIL have positive correlation. while testing the significant of r i.e., P.E (r) all the banks have except HBL, it proved to be insignificant as r is less than P.E. of other banks. Hence it can be concluded that there is no significant relationship between interest spread rate and net profit after tax.

Table 33

Regression Analysis of Total Deposit(y) on Deposit Interest Rate(X)

Rs. in million

Year	**X**	**Y**	**XY**	**X^2**	**$(X - \bar{x})^2$**	**$(Y - \bar{Y})^2$**
2003	4.47	203879.3	911340.471	19.9809	0.781456	3586730650
2004	3.54	233811.2	827691.648	12.5316	0.002116	897447013.1

2005	3.35	252409.8	845572.83	11.2225	0.055696	129022791.8
2006	3.32	291245.6	966935.392	11.0224	0.070756	754984429.9
2007	3.25	337497.2	1096865.9	10.5625	0.112896	5435903509
N =5	**17.93**	**1318843.1**	**4648406.24**	**65.3199**	**1.02292**	**10804088394**

Source: NRB Annual Report,2003- 2007

Let the regression equation of Y on X be,

$Y = a + bx$…….(i)

To find out the value of a and b we have the following two normal equations

$\sum Y = na + b\sum X$ ……(ii)

$\sum XY = a\sum X + b\sum X^2$ ….(iii)

Substituting the value of n, $\sum Y$, $\sum X$, $\sum XY$, $\sum X^2$ in (i) and (ii), we get

1318843.1 = 5a + 17.93b……..(iv)

4648406.25 = 17.93a + 65.3199b…….(v)

Now, multiplying (iv) by 3.6431 and then subtracting from (v), we get

4648406.25 = 17.93a + 65.3199b

4804677.298 = 18.2155a + 65.3199b

– – –

- 156271.058 = 0.2855a

Or, a = 547359.2224

Putting the value of a in (iv), we gwt

1318843.1 = 5 x 547359.2224+ 17.93b

Or,1318843.1 = 2736796.112 + 17.93b

Or,17.93b = 1318843.1 – 2736796.112

Or,17.93b = - 1417953.012

$$\text{Or, } b = \frac{Z1417953.012}{17.93}$$

Or, b = -79082.7112

Now substituting the value of a and b in equation (i), we get required estimated regression equation of Y on X is,

Y = 547359.2224 + (-79082.7112)X

or,Y = 547359.2224 – 79082.7X

Test of significance of the regression coefficient

Setting of hypothesis

Null Hypothesis H_0: b = 0 i.e. value of regression coefficient is insignificant (Deposit interest rate does not play a significant role in deposit collection)

Alternative Hypothesis H_1: b ≠ 0 i.e. value of regression coefficient is significant (Deposit interest rate plays a significant role in deposit collection)

Since the no. of observation is less than 30, we use t – test to know the significance of the regression coefficient.

Formula of t-test is given by

$$T = \frac{b}{SE}$$

The standard deviation of the Deposit Rate

$$\sigma_x^2 = \frac{(X - \bar{X})^2}{n}$$

$$= \frac{1.02292}{5} = 0.2046$$

$\sigma_x = 0.4523$

The standard deviation of the Total Deposit

$$\Sigma_y^2 = \frac{(Y - \bar{Y})^2}{n}$$

$$= \frac{10804088394}{5} = 2160817678$$

$\sigma_y = 46484.5961$

$r = -0.7695$

$r^2 = 0.5921$

$$\text{Standard Error (SE)} = \frac{\pm_y}{\pm_x} \times \frac{\sqrt{1 - r^2}}{\sqrt{n}}$$

$$= \frac{46484.5961}{0.4523} \times \frac{\sqrt{1 - 0.5921}}{\sqrt{5}}$$

$$= 102773.8141 \times \frac{0.6387}{2.2362}$$

$$= 102773.8141 \times 0.2856$$

$$= 29354.0985$$

Value of t when b = -79082.7112 and SE = 29354.0985

$$t = \frac{-79082.7112}{29354.0985} = -2.6941$$

$|t| = 2.6941$

Degree of freedom (d.f) = n -2 = 5 – 2 = 3

Critical Value: - the tabulated value of t at 5% level of significance for 3 d.f is 2.353.

Decision: - Since calculated value of t at 5% is higher than tabulated value of t therefore alternative hypothesis H_1 is accepted. That is value of regression coefficient is significant for increase in interest rate.

Table 34

Regression Analysis of Total Lending(y) on Lending Interest Rate(X)

Rs. in Million

YEAR	X	Y	XY	X^2	$(X - \bar{X})^2$	$(Y - \bar{Y})^2$
2003	11.45	123211.1	1410767.1	131.1025	0.600625	1731478650
2004	11.05	138922.9	1535098.05	122.1025	0.140625	670770632.6
2005	10.225	159641.4	1632333.32	104.5506	0.2025	26840066.95
2006	10.35	173383.4	1794518.19	107.1225	0.105625	73295172.79
2007	10.3	228951.9	2358204.57	106.09	0.140625	4112626118
N =5	**53.375**	**824110.7**	**8730921.22**	**570.9681**	**1.19**	**6615010640**

Source: NRB Annual Report,2003- 2007

Let the regression equation of Y on X be,

$Y = a + bx$……. (i)

To find out the value of a and b we have the following two normal equations

$\sum Y = na + b\sum X$ ……(ii)

$\sum XY = a\sum X + b\sum X^2$ ……..(iii)

Substituting the value of n, $\sum Y$, $\sum X$, $\sum XY$, $\sum X^2$ in (i) and (ii), we get

824110.7 = 5a + 53.375b……..(iv)

8730921.22 = 53.375a + 570.9681b…….(v)

Now, multiplying (iv) by 10.6973 and then subtracting from (v), we get

8730921.22 = 53.375a + 570.9681b

8815759.39 = 53.4865a + 570.9681b

– – –

84838.17 = 0.1115a

Or, a= 760880.4484

Putting the value of a in (iv), we get

824110.7 = 5 x 760880.4484+ 53.375b

Or, 24110.7 = 3804402.242 + 53.375b

Or, $= \frac{Z3804402.242\,\Gamma 824110.7}{53.375}$

Or, b = -55836.2162

Now substituting the value of a and b in equation (i), we get required estimated regression equation of Y on X is,

Y = 760880.4484 + (-55836.2162)X

or,Y = 760880.4484 – 55836.2162X

Test of significance of the regress coefficient

Setting of hypothesis

Null Hypothesis H_0: b = 0 i.e. value of regression coefficient is insignificant
(Lending interest rate does not play a significant role in Loan disbursements.)

Alternative Hypothesis H_1: b ≠ 0 i.e. value of regression coefficient is significant
(Lending interest rate plays a significant role in Loan disbursements.)

Since the no. of observation is less than 30, we use t – test to know the significance of the regression coefficient.
Formula of t-test is given by

$$T = \frac{b}{SE}$$

The standard deviation of the Lending Rate

$$\sigma_x^2 = \frac{(X - \bar{X})^2}{n}$$

$$= \frac{1.19}{5}$$

$$\sigma_x = 0.4879$$

The standard deviation of the Total Lending

$$\Sigma_y^2 = \frac{(Y - \bar{Y})^2}{n}$$

$$= \frac{6615010640}{5}$$

σ_y = 36373.0962

r = -0.7490

r^2 = 0.5610

Standard Error (SE) = $\frac{\pm_y}{\pm_x}$ x $\frac{\sqrt{1 Z r^2}}{\sqrt{n}}$

$$= \frac{36373.0962}{0.4879} \text{ x } \frac{\sqrt{1 Z 0.5610}}{\sqrt{5}}$$

$$= 74550.3099 \text{ x } \frac{0.6626}{2.2361}$$

= 74550.3099 x 0.2963

= 22089.7343

Value of t when b = -55836.2162 and SE = 22089.7343

$$t = \frac{Z 55836.2162}{22089.7343} = -2.5277$$

$|t| = 2.5277$

Degree of freedom (d.f) = n -2 = 5 – 2 = 3

Critical Value: - the tabulated value of t at 5% level of significance for 3 d.f is 2.353.

Decision: - Since calculated value of t at 5% is higher than tabulated value of t therefore alternative hypothesis H_1 is accepted. That is value of regression coefficient is significant. Lending of loan directly depends upon the rate of interest. Lower the Lending rate higher is the request for loan and vice versa.

4.3 Survey Analysis

A small survey was conducted to know about the perception of respondents regarding impact of interest on deposit collection and mobilization. There were 30 respondents who provided their valuable opinion about the matter? The sources however were collected from literate, students, bankers and service holders and

none of the people representing other fields were involved in it. All the questions asked in the survey were closed-end except one asking the respondent to comment on the impact of interest rate on deposit mobilization. The set of close-end questions and their alternative answer asked in the survey are presented below in tabular form.

The responses from respondent to the questions asked in the survey are given below.

More than 63% of the respondent believed the deposit is important for bank while 33% said it is very important and 4% of them said it is not very important to run the bank. 60% agreed that interest rate is not main factor for deposit collection. 20% who were interest-conscious believed that interests are the driving forces for deposit collection. But 20% disagreed that interest rate are prime factors. Given the choice to choose between interest rate and service provided by commercial banks, 55% said both are equally important for them to transact in the bank, 40% said its service what matters and last comes those preferring higher interest 5%. Half of the respondents were not happy with interest rates offered by commercial banks. 40% said new banks are providing good interest rates and they are happy to bank with them. 10% do not care about interest rate they are happy with services provided by the bank. Frequent changes in the interest rate makes 40% of respondents watch the market rates and shift over. 30% do not mind unless it is not decreasing while 30% were least bothered about the changes.

30% thinks NRB should intervene in the markets for decreasing the interest spread. 20% thinks it is ok. 10% believes only new banks have the ability to stretch the interest spread. The rest 40% were unaware about the rate and interest spread. 60% says it market forces that determine the interest rate where demand and supply meets. 20% thinks bank should negotiate interest rate with customer. 10% said bank can itself determine interest rate as per market situation and target market. Over 76% believes that interest rate is not only the factor that helps deposit collection. 24% said its only higher interest rate that attracts huge amount of deposit. 65% believes only interest rate not be used as tool to compete

in the market, it is the combination interest rate and services rendered. Rest believes interest rate can particularly help in Nepal lead in the market. Higher deposit interest rate attracts higher deposit, lower lending interest rate increase loan. Its variation in the cost of fund says 36% of respondents, 50% say its market coverage and 14% say its goodwill of the bank which helps to afford to offer comparatively very different interest rate.

4.3 Major Finding

1. New and small bank showed very aggressive lending policy which ranges from 70 percent to 80 percent of the deposit collected which make them bear higher risk whereas established banks dare to lend between 50 percent to 60 percent total deposit collected. But big banks prefer investing as huge money in directed towards investment in low risky assets. Smaller banks are opting to decrease the dependence on interest income and trying to head towards non-fund based activities.

2. The figures of interest earned to total assets showed banks are behaving in similar patterns. This ratio is in decreasing pattern. Over the years the ratio lies between 5 to 7 percent.

3. Interest coverage ratio reveals that these banks are maintaining comparatively higher interest coverage ratio than others.

4. Total loan to total deposit ratio of NIBL, EBL, HBL and NABIL shows that EBL has comparatively invested high portion of its deposit funds into lending than other three banks. So EBL has been much aggressive in lending larger portion of its deposit fund and NIBL in second position. HBL shows it has been much conservative in lending than others.

5. Total investment to total deposit shows fluctuating investment pattern. HBL has invested higher than other banks, and NABIL in second position. Bigger banks do not depend on lending of its deposit, they foresee the future prospects in investments and take risk to uncertain venture that is why they

invested as high as in investments however, lower level bank with small deposit base preferred lower investment and lent larger amount of deposit as loans and advances.

6. Return on total deposit of these banks, NABIL has mobilized its deposits more effectively than other three banks, however, its decreasing growth rates. The ratio of NIBL showed second position but it has been steady increasing trend. EBL showed decreasing trend in 2005 and 2006 but has increased in 2007. HBL showed comparatively better that EBL but after 2006 it showed decreasing trend.

7. Ratio of interest earned to total deposit ratio of these banks shows EBL had good figures as it earned 6.84% of total assets but showed steady decrease over the year to 5.3% in the last year of study. Similarly NABIL which lies slightly below EBL, also showed steady over the year as it slipped to 5.8% from 6.2%. Other NBL & HBL has highest 5.7 and 5.5 and lowest 5.0 & 5.0 respectively. The ratio of EBL HBL and NABIL banks are decreasing while NIBL is increasing.

8. Interest coverage ratio of these banks has maintained comparatively higher interest coverage ratio than other banks

9. Net interest margin for these banks shows HBL has higher interest and net interest margin as compare to other three banks while NABIL has maintained second. NIBL maintained higher in 2005 and slightly decline there after.

10. Net interest income of these banks shows NABIL has maintained comparatively higher net interest income than other three banks.

11. Effective interest rates of all the banks have decreased excessively except NIBL.

12. Interest spread of these banks shows that NABIL bank enjoyed high interest spread among other banks. It maintained above 4% over five years periods

even 5% in 2005. It maintained highest average interest spread of five years at 4.60.

13. Growth ratio of total deposit of these banks reveals that HBL and NABIL having huge deposit based showed 9.4% and 14.8% growth rate in total deposit. HBL and NABIL reached respectively Rs.30 and Rs.23 billion in the year 2007. NIBL maintained 32.6% growth over 5 year period, while EBL maintained 28.4% of growth for the same period. The deposit collection for last year of NIBL and EBL were respectively 24 and 18 billion.

14. Growth ratio of interest income of these banks from 2003 to 2007 reveals that NIBL and EBL both have maintained growth rate for 36.3% and 21.8% respectively over five year period. Interest income of NIBL and EBL reached 1.5 and 1.1 billion respectively in the last year. While HBL and NABIL maintained 10.3% and 11.7% growth rate respectively over 5 year period and reached 1.7 and 1.5 billion interest income in the last year.

15. Growth ratio of interest expenses these banks from 2003 to 2007 disclose ls that NIBL and EBL showed growth rate of interest expenses 38% and 13.8% respectively for the five year period and reached 685 and 517 million in last year respectively. While HBL and NABIL had 8.5% and 15.5 % growth rate over 5 year period and reached interest expenses 767 and 555 million in last year.

16. From our above calculations we found that deposit interest rate plays a significant role in deposit collection as well as lending interest rate plays a significant role in Loan disbursements.

17. The market survey on impact of interest rate on deposit mobilization revealed many respondents believe that interest rate does play a significant role but there are governing factors that determines the deposit collection and mobilization. The perceptions of the respondent fall under different categories, namely 1. examine the interest income and expenses.2 Concerned about the services are and facilities offered by the bank. 3. Some believes both interest rate and services are the important factor to attract customers toward the bank.

More and mare people believes it is interest rate that attract customers particularly in Nepal where people have less savings and they want to see it grow through income generated from it. Therefore most of customers are interest conscious rather than the added values. Many believe interest rate offered by banks at current are not sufficient return on their saving but they are happy with decreasing of lending rates. Despite this people go to banks for services rendered by banks like credit card, debit card, online banking services. Though interest rate had been and still dominating factor for customers to choose the bank but results show they are inclining towards services offered. Therefore, if this inclination is there to continue the impact of interest rate is going to be minimal and banks offering good services and facilities will definitely hit the market with great success.

CHAPTER 5

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 Summary

Economic liberalization policy of the government has encouraged to establish and growth of commercial banks in the country within short period of time. In situation when the existing financial institutions, especially government's commercial were unable to supply credit in time and carry capital market activities whereas, private joint venture commercial banks have contributed a lot. With time many financial institutions were established making market more competitive and more innovative. During this period general public showed vast changes in the approaches by the financial institutions. As obvious commercial bank have benefits over other financial institutions because of it vast operational area and product variety. However, the commercial bank could not bear such a stiff competitive enough environment; in recent years it began catering small customers who were the shares of smaller financial companies and co-operative societies.

Deposit the main source of commercial banks for lending to needy people. Higher the deposit higher the bank has the ability to disburse the loan. Such deposits are obligation of the commercial banks. So, commercial banks must allocate the funds in different loans and advances and investment giving higher yield then the cost of the deposits. Commercial banks usually give lower interest rate to deposit and charge higher interest rate on disbursement of loan. Old banks having

higher deposit base and extended network facility usually have interest rate spread which makes them earn higher profit and maximize the shareholder's wealth. At the same time new banks having lower interest rate to attract new customers on the ground of attractive interest rate and facilities they offer at lower price.

Usually interest rates have greater impact on the mobilization of the deposit. The higher interest rates attract more deposits and lower interest rates on loan and vice versa. However, in Nepal, due to existence of some uncommon practices, the interest rates do not seem to have such impacts on deposits and credits. Both deposits and lending rates are continuously decreasing over the years decreasing the interest spread. Though it is quite obvious for increasing demand for loan but deposits too are increasing. This has proved that the customers in Nepal do not care much about when one is depositing but lower lending rate attract more customers to take loan.

After Nepal Rastra Bank gave full autonomy to commercial banks to determine own interest rate, bank at different level is offering different rates as per their cost of funds and market standing. Bigger banks have been able to maintain good interest spread while new and small banks are operating at tighter interest spread. Since the banking industry dominated by interest income such as wider or smaller interest spread have greater role to play in the profitability of the bank. It seems that newly established banks are providing higher interest rate on deposit as compared to well set bank but when it comes to lending big banks enjoys same or slightly lower rate maintaining wider spread in interest income.

5.2 Conclusion

Interest is the price that one pays for utilizing a certain amount of money for specified period of time. Interest rate has been the dominating factor for collection and mobilization of deposits and it still continues to be the important one for much longer time. People prefer to deposit when the deposit interest rate is high and like to take loan when lending rate is low but what rate is high and low is determined by the market forces and position of the bank in the market. Big banks in the present market situation are giving lower interest rate on deposit and expect higher interest in return. On the contrary to the small and new banks are offering comparatively higher interest rates on deposits and disburses loan at interest rate similar to well established bank. This has comparatively decreased interest spread of smaller banks. But still there are seen huge customers traffics in big banks despite many facilities offered by smaller banks.

After the economic liberalization policy of the government Nepalese market saw many commercial banks in decade time. Those established in the beginning have grown much bigger having many braches within and outside the valley. They have developed chain of network within and outside the country. This has caused good amount of trust and confidence among the public. New banks which started just before three to four years are growing in the competitive market with its strength as low cost service and facilities. Public too started appreciating this approach over the years and good amount of interest conscious customers are attracted towards these banks.

The overall performance of commercial banks have been sound over the years despite many changes in the interest rates. Since profit of all banks is increasing it is beloved considering interest rate on the higher note, impacts of interest rates have been seen positive. Though interest income of bigger banks is increasing and expenses are at decreasing trend than the smaller banks. These shows that it is not interest rate but there are other factors than interest rate determines the position of big banks. However, the decreasing deposit base and lending of bigger banks cannot be ignored; currently people are shifting to new banks and other financial institutions for earning reasonable returns. This has been proved by the result of the survey that the many respondents said they are happy with new banks offering higher interest rates and good services. This is the good

example of impact of interest rate on the mobilization of funds of bigger banks. Another important reason why change in interest rate can change the profit position of the banks is its dependency on interest income. Since the study shows that top banks have comparatively lower dependency than smaller banks. Smaller banks are prone to face higher impact of interest on the mobilization of its funds. This is reason why smaller banks need to increase deposits interest rate and decrease lending rate to minimize the expected impact of interest rate.

To conclude the followings these are some of the important impact of changing interest rate that are emerged form the study.

- Changing interest rate structure can create a competitive environment among commercial banks.

- The wider spread interest rate helps the commercial bank to manage the higher liquidity position and good profitability.
- A high interest in deposit and low in lending is important to attract customers to the bank but a facilities offer by the banks also plays a important role for the success of the banks.
- An appropriate and realistic interest rate on lending can help in optimum utilization of available resources.
- Higher deposit interest rate and lower lending rate has been regarded important for customers to come to bank. it of course is particularly applicable to developing country like Nepal where very less people can offered to save. Therefore many commercial banks and other financial institutions are as main factor for competing in the market. it has seen new banks are implementing this idea to survive in the market. They maintain very low interest spread than old banks having higher deposit based and coincidence of the customer. Since our market is considerably small and there exist many financial institutions increasing stiff competition among themselves. This has led the competition to another level where mere interest rate is not enough to compete in the market gradually, more and

more banks are increasing their service standard by floating different service product to stay and to compete of higher market share. Some of the highlights of opinion received from the respondent.

- Goodwill of bank has more weight than the role of interest rate.
- If interest rate and service together offered by bank is placed effectively it can cover the maximum market coverage.
- It has significant impact upon the mobilization of deposit, because most of customers are interest conscious rather than the added values.
- In Nepalese market, it's the main factor which holds the reason behind mobilization of the deposit of commercial banks.
- In the modern era people like to have various services rendered by bank like credit card, online banking services, providing interest rate is not only conclusive evidence for public to deposit money. It order to attract public deposit, besides attractive interest rates, various modern banking facilities should not be avoided.
- Interest rate does play a vital role in Nepalese market, however there are other factors governing influence in deposit of commercial banks.

So the interest rate plays a significant role in economic development. Any banks willing to increase the business should always presents its interest rate structure in such a way that the impact of it should be positive of all. Currently, banks in the market are able to structure its interest accordingly which is the reason of increasing profits year after year. If the bigger banks are the leaders in the market, new and smaller banks are trend setters, they all will run smoothly and see a progressive path if they are able to continue some positive impact of interest rates and facilities.

5.3. Recommendation

1. After Nepal Rastra Bank gave full autonomy to commercial banks to determine own interest rate bank at different level in offering different rates as per their cost of funds and market standing. There for government should monitor, regulate, inspect and supervise in order to maintain the stability and healthy development of banking and financial system and for

the enhancement of public credibility towards the entire banking and financial system of the country.

2. Interest earned to total assets showed banks are behaving in similar patterns. This ration is in decreasing trend, this means banks have employed their arrest in non-operating/non-incoming assets. There for they should give attention to stop to increase non-performing assets because non performing assets decrease not profit of the banks.
3. Total loan to total deposit ration shows that EBL has comparatively invested portion of its deposit funds into lending than other three banks. So EBL has been much aggressive in landing larger of its deposit form and Nabil in second position. HBL shows it has been much conservative in lending then other. Both upper limit and lower limit is harmful to banks. In aggressive the bank might be unable to liquidly and lake more risk, however profitability might increase, But in conservative in other hand seems to have high-liquidity and low profitability. There for bank adopt average policy falls in between the aggressive and conservative policies in terms of level of risk and return.
4. Undoubtedly deposit is the main source of commercial banks for lending to needy people. The bank should be able to raise deposit fund in the lowest possible cost and use maximum portion of deposits safely into loan advance to maximize profitability. Growth ratio of total deposit of these banks reveals that HBL and NABIL having huge deposit based reached respectively Rs. 30 and 23 billion in the year 2007 and showed 9.4% and 14.8% growth rate in total deposit. NIBL and EBL maintained 32.6% and 28.4% of growth respectively for the same period and the deposit collection for last year of NIBL and EBL were respectively 24 and 18 billion. Growth ratio of total deposit of HBL and NABIL is low so it is suggested to attract depositors through variety of deposit schemes
5. Here I find out that interest rate do not seem to have such impacts on deposits and credits by calculating correlation coefficient and hypothesis testing. Both deposits and lending rates are continuously decreasing over the year decreasing the interest spread. Though it is quite for increasing demand for loan but deposits too are increasing. There for I conduct little market survey on impact of interest rate on deposit mobilization reveled

many respondents. Many believe interest rate offered by banks at current are not sufficient return on their saving but they are happy with decreasing of lending rates. Despite this people go to banks for services rendered by banks like credit card, debit card, Online banking services. Though interest rate had been still dominating factor for customers to choose the bank but results show they are inclining towards services offered. Therefore, if this inclination is there to continue the impact of interest rate is going to be minimal and banks should offer good services and facilities and definitely it will hit the market with great success.

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Everest Bank Limited	*www.everestbankltd.com*
NABIL Bank Limited	*www.nabilbank.com*
Himalayan Bank Limited	*www.himalayanbank.com*

APPENDIX

1. Introduction of sample commercial banks
2. Survey questionnaire form
3. Population of Commercial Bank.

APPENDIX 1

1.1 Nepal Investment Bank Limited:

NIBL, previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital) was Credit Agricole Indosuez, a subsidiary of one the largest banking groups in the world.

With the decision of Credit Agricole Indosuez to divest, a group of comprising of bankers, professionals, industrialists and businessmen, in April 2002, acquired 50% of the holding of credit Agricole Indosuez in Nepal Indosuez Bank.

The name of the bank was changed to Nepal Investment Bank Ltd. upon approval of the Bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's Office. The bank was awarded in 2003, 2005 and 2007 as the "Bank of the year" by the London based Financial Times Group's for the first time in the history of Nepal. The head office of the Nepal Investment Bank situated in the Durbarmarg and its branches are in different places of the country. There are 19 branches of the banks.

Shareholders structure

The shareholding structure comprises of:

- A group of companies holding 50% of the capital
- Rastriya Banijya Bank holding 15% of the capital
- Rastriya Beema Sansthan holding 15% of the capital
- The general public holding 20% of the capital.

1.2 Everest Bank Limited:

Everest Bank Limited (EBL) started its operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various

segments of the society. The bank is providing customer friendly services through a network of 27 branches across the nation.

Punjab National Bank (PNB) is joint venture partner (holding 20% equity in the bank) is the largest nationalized bank in India having 113 years of banking history. PNB is a technology driven bank serving over 35 billion customers through a network of over 4500 branches spread all over the country with a total business of around INR 2178.74 billion.

The bank has been conferred with “Bank of the Year 2006, Nepal” by the banker, a publication of financial times, London. The bank was bestowed with the “NICCI Excellence award” by Nepal India chamber of commerce for its spectacular performance under finance sector.

Corporate Vision:

Evolve & position the bank as a progressive, cost effective & customer friendly institution providing comprehensive financial and related services; Integrating frontiers of technology & servicing various segments of society; Committed to excellence in serving the public & also excelling in corporate values.

1.3 Himalayan Bank Limited:

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits.

Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL. Other financial institutions in the country have been

following our lead by introducing similar products and services. Therefore, we stand for the innovations that we bring about in this country to help our Customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under our credit standing with foreign correspondent banks, we believe we obviously lead the banking sector of Nepal. The most recent rating of HBL by Bankers' Almanac as country's number 1 Bank easily confirms our claim.

All Branches of HBL are integrated into Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- HimalRemitTM. By deputing our own staff with technical tie-ups with local exchange houses and banks, in the Middle East and Gulf region, HBL is the biggest inward remittance handling Bank in Nepal. All this only reflects that HBL has an outside-in rather than inside-out approach where Customers' needs and wants stand first.

1.4 NABIL Bank Limited:

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services

through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Banglore, India, Internet banking system and Telebanking system.

APPENDIX 2

Questionnaire Form

Dear respondents,

I have been conducting a research work on the subject “Impact of Interest Rates on Deposit Mobilization of Commercial Banks of Nepal”. While in a process to compare commercial banks based on impact of interest rates, please answers to following questions will be used as primary data. Therefore, every single opinion, ideas in this context will be valuable material and genuine help towards building a concrete research work.

I humbly request you to answer at best of your knowledge. Your co-operation in this regard will be of immense value.

It’s really a privilege incorporating your comments and constructive ideas as a part of my research work.

Thanking you,

Yours truly,
Prakash Khanal
M.B.S. Thesis Student
Lumbini Banijya Campus
Tribhuvan University

Name: _____(Optional)

Address: _____

Profession: _____

(Instruction: Please tick (√) in appropriate alternative and give your valuable opinion in the open-ended question)

1. **How important is deposit for the commercial banks?**

[ ] a. Important [ ] b. Not very important

[ ] c. Very Important [ ] d. There are other sources of funds as well

2. **Interest rate is main factor for deposit collection?**

[ ] a. Agree [ ] b. Disagree

[ ] c. Strongly Agree [ ] d. Strongly Disagree

3. **What do you prefer higher interest rate or different services provided by commercial banks?**

[ ] a. Higher interest rate [ ] b. Service

[ ] Combination of both

4. **Are you happy with interest rates offered by commercial banks?**

[ ] a. Yes [ ] No

[ ] c. Happy with new banks offering higher interest rates [ ] d. Least bothered

5. **What would you do if interest rate offered by bank changes quite often?**

[ ] Close the account [ ] b. Don't mind if it is increased

[ ] c. Watch interest rate of other banks and act accordingly [ ] d. Least bothered

6. Do you think commercial banks are enjoying huge interest spread?

[ ] a. No, spread genuine
[ ] b. Yes NRB should tighten its grip to reduce it
[ ] c. Only top bank afford to stretch interest spread
[ ] d. Don' t know

7. Who should determine the interest rate?

[ ] a. Market forces
[ ] b. Bank itself
[ ] c. Nepal Rastra Bank
[ ] d. Negotiation with customer

8. Can bank only rely on the interest rate for collection of deposit?

[ ] a. Yes, higher interest, higher deposit
[ ] b. No, there are factors other than interest rate
[ ] c. Don't know

9. Bank can use its interest rate as important tool to compete in the market.

[ ] a. Agree, it is the main option available particularly in Nepalese market.
[ ] b. Disagree, preferences are changing, customer wants different services along with healthy interest rates
[ ] c. Don't know

10. Why do you think bank operating in the same market can afford to offer comparatively very different interest rate?

[ ] a. Variation in the cost of fund
[ ] b. Goodwill
[ ] c. Market coverage
[ ] d. Don't know

In your opinion, what impact can interest rate have on the mobilization of the deposit of commercial banks?

APPENDIX 3

Population of the Commercial Bank:-

1. Nepal Bank Limited
2. Rastriya Banijya Bank
3. Agriculture Development Bank Limited
4. NABIL Bank Limited
5. Nepal Investment Bank Limited
6. Standard Chartered Bank Nepal Limited
7. Himalayan Bank Limited
8. NSBI Bank Limited
9. Nepal Bangladesh Bank Limited
10. Everest Bank Limited
11. Bank of Kathmandu Limited
12. Nepal Credit & Commerce Bank Limited
13. Lumbini Bank Limited
14. Nepal Industrial & Commercial Bank Limited
15. Machhapuchchhre Bank Limited
16. Kumari Bank Limited
17. Laxmi Bank Limited
18. Siddhartha Bank Limited
19. Global Bank Limited
20. Citizens Bank International Limited
21. Prime Commercial Bank Limited
22. Sunrise Bank Limited
23. Bank of Asia Nepal Limited
24. Nepal Merchant Bank Limited
25. Development Credit Bank Limited

BIO - DATA

Personal Information

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Sex : Male

Marital Status : Single

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Experience **:**

1. Manager of Butwal Co- Operative Since 2064

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Training : Basic Computer, Basic Accounting & Banking