

**INTEREST RATE AND DEPOSIT MOBILIZATION IN
NEPALEASE COMMERCIAL BANK**

A Thesis

Submitted

By

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Certification of Authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

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Kabindra Baniya

February, 2020

RECOMMENDATION LETTER

It is certified that this thesis entitled **Interest Rate and Deposit Mobilization in Nepalese Commercial Bank** submitted by Kabindra Baniya is an original piece of research work carried out by the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgment. Candidate has put in at least 60 days after registering the proposal. The thesis is forwarded for examination.

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APPROVAL SHEET

We, the undersigned, have examined the thesis entitled Interest Rate and Deposit Mobilization in Nepalese Commercial Bank presented by Kabindra Baniya, a candidate for the degree of **Master of Business Studies** (MBS) and conducted the viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

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ABBREVIATIONS

ADBL	Agricultural Development Bank Limited
CBL	Century Bank Limited
CV	Coefficient of Variation
DA	Deposit Amount
IA	Investment Amount
IN	Interest Rate
KBL	Kumari Bank Limited
LA	Loan Amount
MBL	Machapuchhre Bank Limited
MEBL	Mega Bank Limited
NABIL	NABIL Bank Limited
NBL	Nepal Bank Limited
NIBL	Nepal Investment Bank Limited
NMB	NMB Bank Limited
NRB	Nepal Rastra Bank
PCBL	Prime Commercial Bank Limited
SBL	Sanima Bank Limited
SD	Standard Deviation
SIDBL	Siddhartha Bank Limited

ABSTRACT

The collection of deposit and its mobilization are the two sides of the same coin, in the absence of one, another cannot work i.e. without the collection of deposit, mobilization of deposits would be quite impossible and vice versa. They both get along with another under favorable condition. Interest is the main factor in fund activities of commercial banks. The level of interest rate is set by the interaction of supply and demand forces, with demand for funds coming largely from businesses, individuals, borrowers and when it is running deficit, the federal government.

The main propose of this study is to analyze the interest rate and deposit mobilization Nepalese commercial banks. The secondary data are collected for 12 commercial banks covering the period of 2015-2019. From the analysis of relevant data of sample banks under the study using various statistical tools, financial tools, correlation analysis and regression analysis mentioned and from their findings conclusion has drawn. This study concludes that fluctuations in the interest rate of the commercial banks slightly affect the deposit mobilization. When there is a slight increase or decrease in interest rates of deposits and lending then changes its deposit and lending amount. So, the findings generated from the small sample may not be generalized to overall banking sector of Nepal.

The study shows that correlation of deposit amount, investment amount and loan amount on interest rate of all the sample banks was found to be positive. It shows positive relationship between interest rate and deposit amount, interest rate and investment amount, interest rate and loan amount. The regression analysis reveals that deposit amount, investment amount and loan amount has positive impact on interest. This indicates that higher deposit amount, investment amount and loan amount, higher would be the interest rate. The results documented in this study support the finding and theories of the previous study. There is no difference on pattern of deposit mobilization and its effect of interest rate.

CHAPTER I INTRODUCTION

1.1 Background of the study

Commercial banks, as financial intermediaries are expected to transfer resources from surplus units to deficit units. They mobilize funds from savers and allocate funds to deficit units based on their ability to pay principal and interest given associated risk. Funds are allocated to deficit units taking into account depositor's demands and to create a return for the intermediary. Capital in a free economy is allocated through the price system. The interest rate is the price paid to the borrowed capital. When in the case of equity capital, investors' return comes in the form of dividends and capital gains. This cost is affected by various factors. The most fundamental things that affect cost of money are production opportunity and time preference for consumption (Marthethe and Shawky, 2003). The returns available within an economy from investment in productive assets determine 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.

Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets (Crosse, 1663). Interest can be thought of as "rent of money". Interest rates are fundamental to a 'capitalist society' and are normally expressed as a percentage rate over the period of one year. Interest rate as a price of money reflects market information regarding expected change in the purchasing power of money or future inflation (Ngich and Wanjan, 2011).

Interest rate is sometimes referred to as the financial oil of the economy. Therefore, a vision on its development is of vital importance to every financial organization and to its clients. Predicting the interest rate, however, is hardly possible. Nevertheless, identifying the driving forces behind the interest could help to create an image of its future course. Combining these forces in a number of relevant, plausible and surprising scenarios, a clear image of the risks and uncertainties with regard to interest rate development in the future arises. The interest rate development has important consequences for the bank, for instance for the interest rate margin (David,2012). Possible policy measures are being considered. But this is also important for the

clients. For companies the interest rate to be paid is a major expense and often an indicator for the general economic situation and expectation. For consumers, the interest rate influences the burden of mortgage and in a roundabout way also the value of houses.

The collection of deposit and its mobilization are the two sides of the same coin, in the absence of one, another cannot work i.e. without the collection of deposit, mobilisation of deposits would be quite impossible and vice versa. They both get along with another under favourable condition. Interest is the main factor in fund activities of commercial banks. Interest rate affects on the collection of deposits mobilization of saving position.

The Commercial Banks (CBs) have been left with one main problem: how to determine its optimal interest rate exposure in order to retain its lenders (customers), sustain its operational cost, maintain NRB policy rates and ensure business growth in line with set targets at the beginning of the year. This has sent commercial banks Asset and Liability Committees (ALCO) to an intense analysis of its lending rate determinants with the current prevailing economic challenges coming from both customers and the regulator (Gaire,2007). Therefore, this study seeks to establish and analyze determinants of interest rate exposure of commercial banks in Nepal in order to provide affordable financial service and the same time ensures business growth is in line with the organization set objectives.

Irrespective of reasons for holding money, people feel the need of having an intermediate to handle their money safely and easily. This is how financial intermediations have come to function in the economy. The present structure of financial institutions is based on the foundation laid by commercial banks. In the ancient period, commercial banks were synonyms of financial institutions which performed the functions of money matters and financial jobs. Historical evidence shows that commercial banks served as primary means of intermediation. The origin of the banking system is traceable to the ancient Assyrians, Babylonians and Atharsian, but the forerunners of modern banks are considered to be the bank of Vanice (1171), The Bank of Genoa (1320) and the Bank of Amsterdam (1609). Banking in America is strongly influenced by its heritage, even though banks have evolved into professionally managed and electronically connected money brokers.

Financial institutions got freedom in fixing their interest rates in their deposits and loans. In addition, there was also limitation on the interest rate amounts on the different loans provided for productive and priority and full deprived sector. However, there were limitations on certain sectors of lending such as the rate of maximum of 15 percent on the priority sector loan. And for other kinds of loans, financial institutions were given freedom to maintain the interest rate structure. In this way the government has provided freedom as well as limitations on the determination of interest rate (Shrestha, 2000).

1.2 Statement of the problem

Banks traditionally perform a maturity transformation function using short-term deposits to finance long-term loans. The resulting mismatch between the maturity of the assets and liabilities exposes banks to reprising risk, which is often seen as the major source of the interest rate sensitivity of the banking system. Apart from reprising risk, banking firms are also subject to other types of sources of interest rate. As the economy has taken a reverse turn making the financial sector hitting the record low return it has not left the banking sector either (Agrawal, 2007).

Though banking sector has always been the 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. The deteriorating situation of peace and security of the country has rendered the economy further sluggish, whereby the pace of lending to private sector is yet to accelerate (Sapkota, 2002). The establishment of new industries and organizations have come to halt giving banks fewer opportunities to mobilize its resources.

Interest is the price that one pays for utilizing a certain amount of money for a specific period of time. Interest can thus be considered a cost for one entity and income for another. Interest rates 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 greater burden to carry if it is to shoulder responsibility to drag country towards prosperity. An appropriate interest rate is always sought to keep both parties i.e. depositors and borrowers at profitable minimum. Due to stiff competition between the banks to increase the volume of deposit and loans and investments it has been working under 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 of interest rate within and outside the bank has changed the banking habit of individual depositors (Keynes, 2006). This study basically deals with such impacts of interest rate on the deposit mobilization. The main attempt of this study has been answered the following questions.

- i. What is the current position of deposit, investment, loan and advance?
- ii. What is the relationship among interest with deposit, investment, loan and advances?
- iii. What is the impact of interest rate on deposit, investment, loan and advance?

1.3 Purpose of the study

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

- i. To analyse the current position of deposit, investment, loan and advance.
- ii. To assess the relationship among interest with deposit, investment, loan and advances.
- iii. To examine the impact of interest rate on deposit, investment and loan and advance.

1.4 Significance of the study

Commercial Banks will be able to understand the impact of interest rate of deposits mobilization of the banks firm. The prevailing margin between deposit-lending rates, the interest rate in an economy has important implications for the growth and development of bank firm, as numerous authors suggest, a critical link between the efficiency of bank intermediation and economic growth (Quaden, 2004).

- i. By the help of this study, general public can know the interest rates offered by banks for deposits of the Nepalese commercial banks.
- ii. The study of interest rate and its impact on deposits would provide information to the management of concern banks that would be helpful to take corrective actions in the banking activities.

- iii. This study provides valuable information that is necessary for the management of the banks, shareholders, general public and related parties.

1.5 Limitations of the study

- i. Out of 27 listed commercial banks only 12 commercial banks are considered for the purpose of study. Some banks got merged during the study period and some banks data were not available hence, such banks are excluded from the purpose of study.
- ii. It has only considered secondary data are for the study purpose. Data collection conducting primary survey is not taken into consideration. It is limited to the data available in the annual reports of the sample banks.
- iii. Lack of pertinent literature on commercial bank deposit in the Nepalese context.
- iv. This study has analyzed only last 5 years data beginning from 2014/15 to 2018/19

1.6 Chapter plan

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

Chapter I: Introduction

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

Chapter II: Literature review

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

Chapter III: Research methodology

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

Chapter IV: Results

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

Chapter V: Conclusion

This chapter presents the brief background of the study, objectives, literature review and methodologies. Chapter focuses on the major findings and compares them with theory and other empirical evidence to extend possible.

CHAPTER II

REVIEW OF LITERATURE

The various concepts employed in the study are, in fact derived from the different literature surveyed in this part. The review of these literatures has been described in three parts. This first part presents discussion on conceptual frameworks while the other two parts deal with review of literature in the international context and review of Nepalese studies.

2.1 Conceptual review

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

2.1.1 Interest rate theories

In financial markets there are numerous interest rates exists. These differences are due to the risk premium associated with the issuer. Even securities issued by the same borrowers often carry a variety of interest rates. In this section, we focus upon those basic forces that influence the level of different interest rates. To uncover these basic rate determination forces, however, we must make a simplifying assumption. We assume in this chapter that there is one fundamental interest rate in the economy known as the pure or real rate of interest which is the component of all interest rates.

a. The classical theory of interest rate

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

Saving by households

What is the relationship between the rate of interest and the volume of savings in the economy? Most saving in modern industrialized economies is carried out by individuals and families. For these households saving is simply abstinence from

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

Saving by business firms

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

Saving by government

Governments also save though usually less frequently than households and businesses. In fact, most government saving (i.e. a budget surplus) appears to be unintended saving that arises when government receipts unexpectedly exceed the actual amount of expenditures. Income flows in the economy (out of which government tax revenues arises) and the pacing of government spending programs are the dominate factors affecting government savings. Interest rates are probably not a key factor here.

The demand for investment funds

Business, households, and government savings are important determinants of interest rates according to the classical theory of interest, but they are not the only ones. The other critical rate determining factor is investment spending most of it carried out by business firms. Certainly, businesses, as the leading investment sector in the economy, require huge amounts of funds each year to purchase equipment, machinery, and inventories, and to support the construction of new buildings and other physical facilities. The majority of business expenditures for those purposes consist of replacement investment; that is, expenditures to replace equipment and facilities that are wearing out or are technologically obsolete. A smaller but more dynamic form of business, Capital spending is labeled net investment; expenditures to acquire new equipment and facilities in order to increase output. The sum of replacement investment plus net investment equals gross investment.(Pokhrel j., 2004).

b. The liquidity preference theory of interest

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

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

Interest has been defined as a reward for parting with liquidity for a specified period. Money is the most liquid asset and people generally have liquidity preference for

holding their wealth in the form of cash rather than in the form of interest or other income yielding assets. They can be persuaded to give up some part of their cash if adequate reward is paid in the form of interest. Thus, interest is the reward for inducing people to part with liquidity. The stronger the desire for liquidity the higher the rate of interest and weaker the desire for liquidity, lower the rate of interest. (Shrestha & Adhikari, 2008).

c. The loanable fund theory of interest rate

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

d. The rational expectation theory of interest

In recent years, a fourth major theory about the forces determining interest rates has appeared; the rational expectations theory of interest rates. This theory builds on a growing body of research evidence that the money and capital markets are highly efficient institutions in digesting new information affecting interest rates and security prices. For example, when new information appears about investment, saving, or the money supply, investors begin immediately to translate that new information into decisions to borrow or lend funds. So, rapid is this process of the market digesting new information that asset prices and interest rates presumably impound the new data from virtually the moment they appear. This expectations theory assumes that businesses and individuals are rational agents who form expectations about the distribution of future asset prices and interest rates that do not differ significantly from optimal forecasts made from using all the available information that the marketplace provides. Rational agents attempt to make optimal use of the resources at their disposal to maximize their returns. Moreover, a rational agent will tend to make unbiased forecasts of future asset prices, interest rates, and other variables. That is, he or she will make no systematic forecasting errors and correct them quickly. If the money & capital markets are highly efficient in the way we have described, this implies that interest rates will always be very near their equilibrium levels. Any

deviation from the equilibrium interest rate dictated by demand and supply forces will be almost instantly eliminated. Security traders who hope to consistently earn windfall profits from correctly guessing whether interest rates are "too high" (and therefore will probably fall) or are "too low" (and therefore will probably rise) are unlikely to be successful in the long-term. Interest rate fluctuations around equilibrium are likely to be random and momentary. Moreover, knowledge of past interest rates. For example, those that prevailed yesterday or last month will not be a reliable forecast of where those rates are likely to be in the future indeed, the rational expectations theory suggests that in the absence of new information the optimal forecast of next period's interest rate would probably be equal to the current period's interest rate (i.e. $E(r_{t+1}) = r_t$) because there is no particular reason for next period's interest rate to be either higher or lower than today's interest rate until new information causes market participants to revise their expectations. Old news will not affect today's interest rates because those rates already have impounded the old news. Interest rates will change only if entirely new and unexpected information appears. However, if the government merely repeated that same announcement again, interest rates probably would not change a second time; it would be old information already reflected in today's interest rates. Imagine a new scenario however. The government suddenly reveals that contrary to expectations, tax revenues are now being collected in greater amounts than first forecast and therefore no new borrowing will be needed. Interest rates probably will fall immediately as market participants are forced to revise their borrowing and lending plans to deal with a new situation. How do we know which directions rates will move? Clearly the path interest rates take depends on what market participants expected to begin with. Thus, if market participants were expecting increased demand implies lower interest rates in the future. Similarly a market expectation of less credit demand in the future (supply unchanged) when confronted with an unexpected announcement of higher credit demand implies that interest rates will rise (Peter S, 2003).

e. Modern theory of interest rate

This theory is propounded by Hicks and Hansen. The modern theory of interest is superior to the other theories of interest because it includes all the four factors; saving, investment, the demand for money and the supply of money in the determination of

rate of interest. It considers both the monetary and non-monetary sectors (i.e. real sector) of the economy, while determining the rate of interest.

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

To determine the rate of interest, the modern theory develops two curves; the IS curve and LM curve the former shows the equilibrium between the flow variables in the real sector while the latter shows the equilibrium between the stock – variables in the monetary sector. The point of interaction of these two curves establishes the equilibrium rate of interest at which both the real and the monetary sector of the economy are simultaneously in equilibrium. (Shrestha, 2012).

2.1.2 Interest rates in financial system

The acts of saving and lending and the borrowing and investing activities within the financial system are significantly influence by the interest rate. The interest rate is the price paid for borrowing the scarce loanable funds from a lender for an agreed upon time period. In very general term, interest rate is the price paid for credit. But unlike other prices, in the economy, the interest rate is the ratio of two quantities. So, it is computed dividing the cost of borrowed fund in rupees by the annual percentage basis. As the interest rate provides the price signal in the financial system, thus it is important to all the participants: higher interest rate encourages savings in greater volume and increases the lending activities of funds. Lower interest rate, in the other hand, discourages the savings and reduces the lending activities as well. Higher interest rate also means that it lends to reduce the volume of borrowing and capital investing spending. This force in the financial system actually, determine a rate that satisfy both savers/lenders and borrower/investor called equilibrium rate of interest.

2.1.3 Functions of interest rate in the economy

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

- i. To generate adequate volume of savings to fund investment and thus to grow the economy.

- ii. To direct the flow of credit in the economy toward those investment projects having greater expected rate of return.
- iii. Brings into balance the supply of money with the public's demand for money.
- iv. Acts as important tools to adopt government policy.

2.1.4 Determinants of interest rates

a. Supply and demand

Interest rate levels are a factor of the supply and demand of credit: an increase in the demand for credit will raise interest rates, while a decrease in the demand for credit will decrease them. Conversely, an increase in the supply of credit will reduce interest rates while a decrease in the supply of credit will increase them. The supply of credit is increased by an increase in the amount of money made available to borrowers. For example, when you open a bank account, you are actually lending money to the bank. Depending on the kind of account you open (a certificate of deposit will render a higher interest rate than a checking account, with which you have the ability to access the funds at anytime), the banks can use the money for its business and investment activities. In other words the bank can lend out that money to other customers. The more banks can lend, the more credit there is available to the economy. And as the supply of credit increases, the price of borrowing interest decreases. Interest rate levels are a factor of the supply and demand of credit: an increase in the demand for credit available to the economy is decreased as lenders decide to defer the re-payment of their loans. For instance, when you decide to postpone paying this month's credit card bill until next month or even later, you are not only increasing the amount of interest you will have to pay, but also decreasing the amount of credit available in the market. This in turn will increase the interest rates in the economy.

b. Inflation

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

c. Government

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

2.2 Concept of deposit

Deposit is nothing more than the assets of an individual which is given to the bank for safe keeping with an obligation to get something from it. To a bank these deposits are liabilities. Commercial bank act 2031 defines "Deposits" as the amount deposited in a current, savings or fixed accounts of a bank or financial institution. The deposits are subject to withdraw by means of cheque on a short notice by customers. The rate of interest rate varies depending on the nature of the deposits. The bank attracts deposits from customers by offering different rates of interest and different kinds of facilities. Though the bank plays an important role in influencing the customer to save and open deposit accounts with it, it is ultimately the customer who decides whether s/he should deposits his/her surplus funds in current deposit a/c, saving deposits or fixed/time deposit a/c. Bank deposits arise in two ways. When the banker receives cash, it credits the customer's account, it is known as a primary or a simple deposit.

2.2.1 Importance of deposit

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

the investment in the economy also lags behind due to lack of resources. The deposit of bank is the accumulated capital which can directly be invested. There is a greater need of such deposit in the developing countries.

2.2.2 Deposit mobilization

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

a. Liquid funds

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

- i. Cash in hand
- ii. Balance with NRB
- iii. Balance with domestic bank
- iv. Call money

b. Investment

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

- i. Share and debenture
- ii. Government securities
- iii. Joint-venture

c. Loan and advances

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

d. Fixed assets

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

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

2.2.3. Need for deposit mobilization

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

- i. Capital is needed for the development of any sector of the country. The objective of deposit mobilization is to collect the scattered capital in different form with in the country
- ii. The need of deposit mobilization is felt to control unnecessary expenditure. If there is no saving, the extra money that the people have can flow forwards buying unnecessary and luxury goods. So, the government also should help to

collect more deposit, sleeping legal procedure to control unnecessary expenditures.

- iii. Commercial banks are playing a vital role for national development. Deposit mobilization is necessary to increase their activities. Commercial banks are granting loans not only in productive sectors, by also in other sectors like food, grains, gold and silver etc. Though these loans are traditional in nature and are not helpful to increase productivity, but it helps, to some extent, to mobilize bank deposit.

2.2.4 Factors affecting deposit mobilization

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

a) Interest rate

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

b) Branch expansion

To build up a financial infrastructure geographically and functionally diverse to help in the resource mobilization to meet the expanding and emerging needs of developing economy. It has been also felt that timely and adequate credit support should be made available for the sector, which hither to be neglected, so that the system reached out to

the small town and the rural and semi urban area. For this purpose, the extension of geographical spread of banking was given prime importance. It acted as an instrument of deposit mobilization on was given prime importance. It acted as an instrument of deposit mobilization on the one hand and provision of credit to the rural hinterland of the economy on the other. The larger number of people of that country saves more money. (Bhandari, 2013).

2.3 Reviews from relevant studies

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

2.3.1 Review of articles

Schuz (1979) analyzed the institutional listed savings grew during the financial system deregulation era in line with the view that liberalisation of financial sector results in increase in supply of savings to the banking sector as expressed by Mckinnon and Shaw. he increase in aggregate savings is not unconnected to the higher interest rate offered for deposit with the bank. However, the resultant high borrowing cost discouraged the borrowers, especially private sector producers, as their capital became inefficiently costly.

Schmidt-Hebbel (1999) reviewed the economic literature on saving provides a loan list of factor affecting the saving rates. Studies have found an ambiguous effect of increasing in real interest rate on saving because of a positive substitution effect toward future consumption and a negative income effect due to the increase real returns on saved wealth. (Fry, 1995) has found a small but positive interest rate elasticity of saving to be insignificant related to real interest rates. The empirical evidence on the effect of real interest rates on saving has proven to be inconclusive. The real interest rate affects the saving rate positively in Bangladesh and Nepal but negative in India, Pakistan and Srilanka (Agrawal etal, 2007).

Ngetich and Wanjau (2017) explain the monetarists economists argued long time ago that central bank interest rate rules exacerbate microeconomic fluctuations, essentially by not allowing interest rate to respond promptly to shifts in supply and demand for loans. To support this critique, they pointed to the pro-cyclical of the money stock. Yet, when there are real shocks and a real business cycle,

modern macroeconomic models imply that some pro-cyclicality is desirable, to stabilize the price level. A simple interest rate rule illustrate that the monetarist critique can be valid within this model, since the rule exacerbates the real activity to real shocks. Other interest rates rules instead limit the macro economy's response to real shocks. But, while these interest rates rules have diverse effects on real activity, there is an important common implication: By smoothening the nominal interest rate in the short run, the rules all lead to increases in the long run variability in inflation and nominal interest rates .

Pokharel (2007) conducted a study on “Problem & prospects of Commercial bank in relation to deposit collection & mobilization” she has mention that the commercial bank in Nepal are doing well but they are not giving satisfactory result due to some internal and external factor. A deposit is indeed the major organ of commercial banks. Higher the deposit higher will be the capacity of investment and higher will be the chance of mobilization of fund and make the satisfactory profit for the long term sustainability of an organization. In her study she has mention that if the commercial bank does not adopt the sound investment policy, it will be greater trouble in future in the collection of loan. Bank should invest its fund in various portfolios after proper study of the project. It keeps the bank far from the problem of default of payment that certainly keep the bank safe from the bankruptcy. Diversification of investment is very much important for banks because bank uses the money of people for the benefits of the depositors and the benefits of its own.

Mashamba (2016) analyzed the relationship between banks' deposit interest rates and deposit mobilization in Zimbabwe for the period from 2000 to 2006. The study is developed based on an Ordinary Least Squares (OLS) model to show the relationship between the response and explanatory variables. The study found a positive relationship between deposit rates and banks' deposits for the period under study and all the other explanatory variables were statistically significant. The study also revealed that banks to tap into the unbanked markets through massive branch expansion, offering low cost accounts and increasing interest offered on deposits to attract more deposits.

Bhatta (2004) in his article, “Monetary Policy and Deposit Mobilization in Nepal” that the mobilization of domestic saving is one of the prime objectives of monetary

policy in Nepal. For this purpose, commercial banks stood as the active and vital financial intermediary for generating resources in form of deposit of the investors in different aspects of the economy.

Pradhan (2000) in his article "Deposit Mobilization, its problem and prospectus" has presented that deposit is the life-blood of every financial institution like commercial bank, finance company, co-operative or non-government organization. He further adds in consideration of most of banks and finance companies, the latest figure does produce a strong feeling that serious review must be made of problems and prospectus of deposit sector. The main problem is most of the Nepalese do not go for saving in institutional manner, due to the lack of good knowledge however, they are very much used of saving be it in the form of cash or ornaments, more mobilization and improvement of the employment of deposits and loan sectors. Nepal Rastra Bank could also organize training program to develop skilled manpower. The study summarizes that commercial banks only can play an important role to mobilize the national savings. Now a day other financial institutions like finance companies, cooperative societies have been established actively to mobilize deposits in the proper sectors so that return can be ensured from the investment.

Sharma (2000), in his article entitled, "Banking the future on competition" found that all the commercial banks are establishing and operating in urban area, his achievements are Commercial banks are charging the higher rate of interest on lending, commercial banks are establishing and providing their services in urban areas only. They have not interested to establish in rural areas. Have branches in rural areas and they do not properly analyze the credit system. The researcher further states that private commercial banks have mushroomed only in urban areas where large volume of banking transaction and activities are possible.

2.3.2 Review of theses

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

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

Ghosal (1996) in their book "Economic Growth and Commercial Banking in the Development of Economy" states that insurance of bank deposits, creation of proper atmosphere can increase deposits and the development of capital markets with the help of banks will prove effective in mobilizing the available floating resources in the country.

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

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

Khatri (2009) in thesis entitled "Impact of interest rates on deposit mobilization of commercial banks of Nepal" with the main objective to find present the impacts of interest rate on deposit mobilization of commercial banks, see the impact of interest rates of deposit on the deposit collected by the commercial banks and see deposit-credit margin ration throughout the changed incurred in the interest rate by which one can see that how far the deposits have efficiently utilized. This study concern only a period of five years from the year ended 2007 to 2012. Only secondary data has analyzed. Simple analytical statistical tools such as graph, percentage, Karl Pearson's coefficient of correlation and the method of trend Analysis are adopted in this study. Similarly, some strong according tools such as ratio analysis have also been used for financial analysis.

Pokhrel (2007) on the "Interest rate structure and its relation with deposit, lending and inflation in Nepal" concludes, the interest rate on both deposit and lending of all sample banks are in decreasing trend, the saving deposit amount and saving interest rate have negative relationship and fixed deposit amount and fixed interest rate shows negative relationship. The writer found that the overall performances of commercial banks are satisfactory and Nepal Rastra Bank has to play more active role to enhance the operation. Liquidity position of the commercial banks has satisfactory. The interest rate has played important role in deposit mobilization of the bank .So; the structure of interest rate should be changed according to the need to nation.

Bhandari (2013) on thesis entitled "Interest rate and its impact on deposit mobilization of commercial banks." With the main objective of this study is to know the overall influence of interest rate on deposit of commercial banks as well as to identify whether the interest rate spread is satisfactory or not. Besides this the other specific objectives related to this study are to examine the impact of the interest rate on the mobilization of deposits, to analyze the trend of deposits, investments and loans and advances and analyze the relationship of deposit with interest rate, investment and loan and advances.

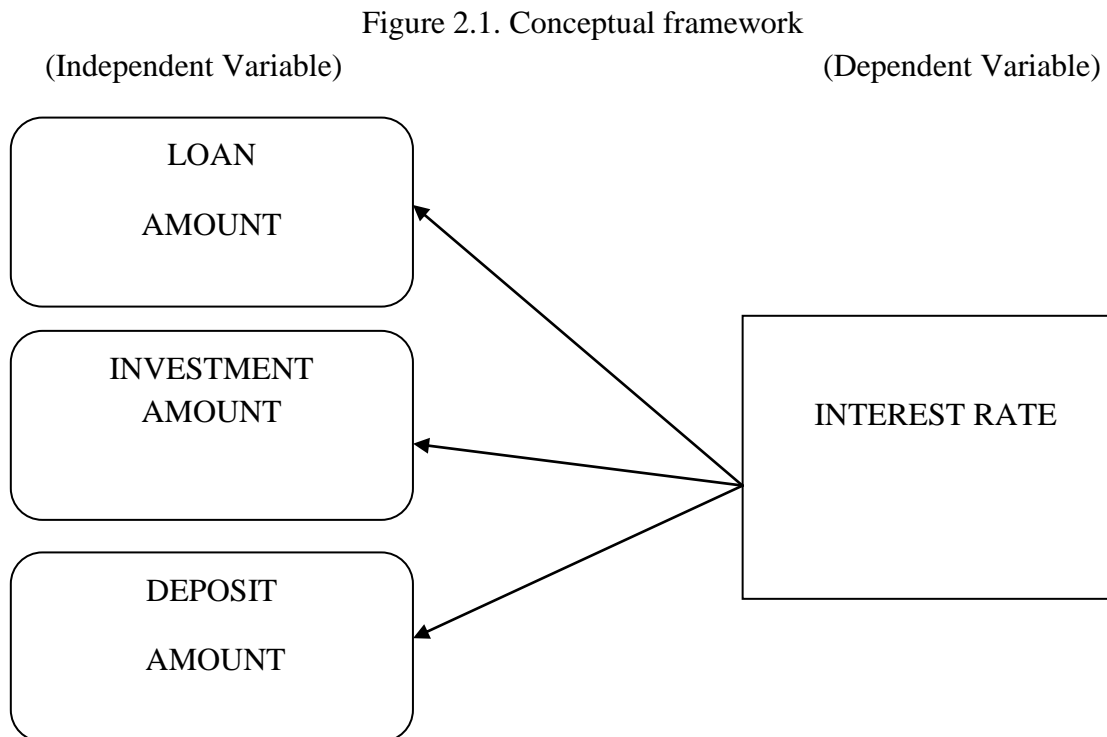
Bhandari (2014) conducted his master's thesis on "The impact of interest rate structure on investment portfolio of Commercial Banks in Nepal". The objective of the study are to cast a glance at the historical background of interest rate structure of commercial banks, policies, decision and strategies regarding it and their impact, to

present and analysis interest rate structure of commercial banks in different period and to assess the impact of interest rate structure of commercial banks of their investment portfolio by analyzing their deposits, loans, advances, interest spread, investment and bills purchased and discounted. In his analysis two commercial banks and three joint venture banks are taken for the purpose of the study. The most of data and information and data have been collected from discussion and interviews, both the financial and technical tools are used to for the analysis of data. Finally he has concluded rates of commercial banks have been fluctuating. Deposit and lending rate were increased immediately after liberalization of the interest on August 31st 1989, but how ever started to decline which have helped in increasing the credit flow, Interest rate structure has direct influence on profitability of commercial banks. Decreasing lending rate helps to increase the profitability through increasing the credit and deposit is more interest rate conscious and positively correlated.

Shrestha (2016) in his Study, “A comparative analysis of financial performance of the selected commercial banks”. Concluded that many of banks are of the view that political instability in the country is mainly responsible for the decline of the lending opportunity, few banks ascribed it to the economic crisis that occurred in Asia pacific region. No one helped that higher rate on interest on lending to be major factor. At the same time should target not only the urban sector.

2.4 Conceptual framework

A conceptual framework is use to limit the scope of the relevant by focusing on specific variables and defining specific viewpoint that the research will take in analysing and interpreting the data to be gathered it also facilitates the understanding of concepts and variables accounting to given definition and builds new knowledge by validating a challenging theoretical assumptions. In model the various independent variables named as deposit amount, investment amount and loan amount and their dependent variable named interest rate. The conceptual framework of this study has been shown in figure 2.1



Source: Ene et al (2017)

Interest rate:

For the commercial banks, interest rate refers the amount paid on deposit. The main objective of the interest rate on deposit is to attract the scattered savings. Therefore, the proper interest rate plays vital role for collecting deposits. According to the neo-classical monetary theory interest rate is a factor, which brings demand for investment and willingness to save into equilibrium with each other. Investment represents the demand for resources and saving represents the supply. While interest is the price of resources, at which two are equated. Interest is an important factor to mobilize savings.

Deposit amount:

Deposit is nothing more than the assets of an individual which is given to the bank for safe keeping with an obligation to get something from it. To a bank these deposits are liabilities. Commercial bank Act 2031(1974) defines "Deposits" as the amount deposited in a current, savings or fixed accounts of a bank or financial institution. The deposits are subject to withdraw by means of cheque on a short notice by customers. The rate of interest rate varies depending on the nature of the deposits. The bank attracts deposits from customers by offering different rates of interest and different kinds of facilities.

Loan amount:

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

Investment amount:

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

- i. Share and debenture
- ii. Government securities
- iii. Joint-venture

2.5 Research gap

While a number of studies have investigated the effect of interest rate on deposit mobilization of commercial banks. Most of these studies have been done in developed countries with few being done in developing countries. In Nepal, when banking system has established in early (BS 1994) and established central bank has published act 2058 Dafa79 cleared by policy. The approach used in much of the literature is to classify determinants of commercial banks" interest rate spreads according to whether they are bank-specific, industry (market) specific or macroeconomic in nature.

It is asserted that this may be because spreads are largely determined at the industry level, thus making individual bank characteristics more relevant to other variables, such as bank profitability. A similar argument, made to explain the failure of analysis of interest rate exposure in developing countries to converge to international levels even after financial liberalization, suggests that high interest rate risks in developing countries will persist if financial sector reforms „do not significantly alter the structure within which banks operate. Such factors include the efficiency of the legal system, contract enforcement, and decreased levels of corruption, which are all critical elements of the basic infrastructure needed to support efficient banking.

In Nepal the high inflation and lending interest rates witnessed in the year 2019 was a clear evidence that the country is still struggling with drafting

stable monetary policies which can sustain its economic environment for progressive development. During the past few decades, many banks both in developed, emerging and developing economies face difficult situation and problems in performance. Such bank failure and financial distress have affected many banks and some of which have closed down by the regulatory authorities. Banking problem results the output and employment loss in an economy. The output and employment loss due to banking crisis was about two digit percentage of GDP. This study has attempted to carry out distinctly from other previous studies in terms of sample size, nature of the sample firms and the research methodology used. This study has covered 12 banks with 5 years of data. Thus, it is being believed that this study is different from earlier studies of Nepalese context and attempts to analyze the Interest rate and deposit mobilization in Nepalese commercial bank .

CHAPTER III

METHODOLOGY

Research methodology refers to the various sequential steps to be adopted by a researcher so as to obtain answer to the research question. In this chapter, the focus has been made on research design, nature and sources of data, sampling procedure, tools used for analysis of data.

3.1 Research design

The study analyzed the relationships between interest rate on deposit mobilization of Nepalese commercial banks. This study has employed descriptive and causal comparative research designs to deal with the fundamental issues associated with factors influencing interest rate with deposit mobilization in the context of commercial banks in Nepal. This design has also been employed and banker's employers assess the opinions, perceptions, and characteristics of respondents such as investors, executives and securities business persons with respect to market preferences, market efficiency including factors affecting interest rate in Nepal. This study is also based on correlational research design. This design has been adopted to ascertain and understand the directions, magnitudes and forms of observed relationship between interest rate and deposit mobilization with different variables. The basic purpose of employing and bankers causal comparative research design in this study is to understand and examine whether it is possible to predict interest rate and deposit mobilization on the basis of information about commercial banks firm specific and macroeconomic variables. Other methodological issues associated with this study are credit in the respective sections.

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

3.2 Population and sample

Population of this study includes all the 27 commercial banks listed in NEPSE till September, 2015. In selecting the most reliable and representative samples, non-probability judgmental sampling technique is use. For the study purpose, banks

involving in banking services at least for five years have been considered for sample. since all of them did not provided scope for the study, 12 different Nepalese commercial banks were taken as a sample out of 27 Nepalese commercial banks for the period of 2014/15 to 2018/19.

3.3 Sources of data

For this study, secondary data are collected mainly from published sources like annual reports, prospectus, newspaper, journal, Internet and other sources. Secondary data published in the annual reports of concerned organizations are collected through personal visit in respective organization as well as from their web sites. All the annual report published is verified and approved through AGM of respective banks and also approved by NRB Since these annual reports were approved by concerned body the reports were considered authentic to be present in this research.

3.4 Data collection and processing procedures

This section deals with statistical and econometric models used for the purpose of analysis of secondary data. Descriptive, co-relation and regression methods of analysis are used in the study. The descriptive statistics contains mean, standard deviation, minimum and maximum values of variables which used to explain the characteristics of sample firms. The correlation analysis is used to measure the direction and magnitude of relationship between dependent and independent variables. The regression analysis is used to find out the influence of independent variable over dependent variable solely and combined with other variables. It explains the different statistical tests of significance for validation of model of linear regression analysis. All models are tested for individual effects by running correlation and regression using statistical package for social science (SPSS 25). Details analysis of models and statistical test of significance have been dealt in the following sections.

3.5 Data analysis tools

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

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

- a) Financial Tools
- b) Statistical Tools

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

a) Financial tools

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

1. Loan and advances to total deposit ratio
2. Total investment to total deposit ratio
3. Interest income on loan & advances ratio

b) Statistical tools

1. Arithmetic mean (\bar{X})

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

$$\bar{X} = \frac{\sum X}{N}$$

Where,

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

N = Number of items

2. Standard deviation (σ)

Karl Pearson first introduced the concept of standard deviation in 1983. Standard deviation is the positive square root of the arithmetic average of the squares of all deviation measured from the arithmetic average of the series. The standard deviation measures the absolute dispersion of a distribution. Standard deviation is an important and widely used measure of dispersion. The greater the amount of dispersion is the

greater the standard deviation. The greater the standard deviation greater will be the magnitude of the value from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. Standard deviation is denoted by a Greek Letter ‘ σ ’ (sigma) and is calculated as follows.

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

Where,

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

N = Number of items

3. Coefficient of variation (C.V.)

It is the relative measurement of risk with return. It measures the risk per unit of return. Standard deviation is the absolute measure of dispersion. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the coefficient of variation (C.V.). If \overline{X} be the arithmetic mean and (σ) be the standard deviation of the distribution, then the C.V. is defined by

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

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

4. Correlation coefficient (r)

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

Correlation may be positive or negative which lies between ± 1 . Simple correlation between interest rate on deposit and deposit amount is computed in this thesis. The correlation between interest rate on deposit and deposit amount is positive. For our study following reference is used.

- i. Correlation may be positive or negative and ranges from +1 to -1. When $r = +1$ there is perfect positive correlation, when $r = -1$ there is perfect negative correlation, when $r = 0$ there is no correlation and when $r < 0.5$ then there is low degree of correlation.
- ii. When 'r' lies between 0.7 to 0.999 (or -0.7 to -0.999) there is high degree of positive or negative correlation.
- iii. When 'r' lies between 0.5 to 0.6999 there is a moderate degree of correlation.

The correlation coefficient can be calculated as:

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

Where,

n = no. of observation

X1 = Dependent Variable

X2 = Independent Variable

5. Coefficient of determination (r^2)

The coefficient of determination is the primary way to measure the extent or strength of the association that exists between two variables X_1 and X_2 . It refers to measure at the total variance in a dependant variable that is explained by its linear relationship to and independent variance. The coefficient of determination is denoted by r^2 and the value lies between zero and infinity. The close to infinity means greater the explanatory power. A value or one can occur only is the in explained diagram falls exactly on the regression line. The r^2 is always a positive number. It can't tell whatever the square of the simple correlation coefficient is called coefficient of determination and it is very useful in interpreting the value of simple correlation coefficient. The main significance of the coefficient of determination is to represent the portion of total variations due to independent variable. Coefficient of determination $(r^2_{12}) = (r_{12})^2$

6. Multiple regression equation

In this model, the Interest Rate is regressed against the deposit amount, the investment amount, the loan amount and other explanatory variables. The multiple regression equation of the model is:

$$IN_{i,t} = \alpha + \beta_1 DA_{it} + \beta_2 IA_{it} + \beta_3 LA_{it} + e_{it}$$

Where,

IN= Interest Rate

DA= Deposit Amount

IA= Investment Amount

LA=Loan Amount

e = Error Term

α = Constant Term

i= individual dimension

t = time dimension

CHAPTER IV

RESULTS

In this section, all the collected data are presented in the filtered form and are analysed thoroughly. This is the one of the major chapter of this study because it includes detail analysis and interpretation of data from which concrete result of Nepalese market can be obtained. In this chapter the relevant data and information necessary for the study are presented and analysed keeping the objectives set in mind. This chapter consists of various calculations made for the analysis of interest rate and its effects on deposit of sample bank. This chapter consists of detail analysis and interpretation of data relating to interest rate on deposit, deposit collection amount of each selected organization from Nepalese financial system. This chapter is categorized in three parts presentation, analysis and interpretation. The analysis is based on secondary data. In presentation section data are presented in terms of table, graph chart of figures, according to need. The presented data are then analysed using different statistical tools which are mentioned in chapter three. At last the results of analysis are interpreted. For our simplicity, in this thesis, presentation, analysis and interpretation of data are made according to the nature. After then, the relationship between interest rate and deposit amount is made.

In the previous chapters, we discussed about the interest rates on deposit mobilisation of commercial banks, historical background of interest rate and NRB's policies regarding it. Likewise in second chapter we discussed about the previous studies through literature review and in the subsequent chapter, we presented the methods that have been used to analyse the information. This chapter is the heart of the study. This chapter consist of relevant data and information necessary for the study. In this chapter the analysis part is presented in detail. This chapter is mainly concerned with the presentation of collected data in suitable tables and diagrams as well as the analysis and presentation of these collected data in a suitable manner using various statistical and financial tools. Different types of ratios have been calculated to reach in the conclusion of the study.

4.1 Data Presentation and Analysis

4.1.1 Average, standard deviation and coefficient of variation analysis

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

Table 4.1: Calculation of deposit for the period 2015 to 2019. (Rs in Billion)

Banks	2014/15	2015/16	2016/17	2017/18	2018/19	Mean	SD	CV
NBL	78.00	89.41	93.94	99.83	118.28	95.89	13.29	0.14
NABIL	104.24	110.27	118.90	135.98	164.37	126.75	21.64	0.17
ADBL	77.04	87.39	99.82	104.18	118.88	97.46	14.34	0.15
MEBL	21.13	30.75	38.94	62.97	81.87	47.13	22.22	0.47
KBL	27.58	33.42	37.95	52.04	69.65	44.13	15.10	0.34
SIDBL	44.74	64.93	77.32	101.75	122.53	82.25	27.33	0.33
CBL	18.39	24.95	28.97	42.59	61.32	35.25	15.25	0.43
SBL	34.05	46.42	58.23	79.18	92.28	62.03	21.22	0.34
PCBL	41.01	48.34	65.86	81.30	86.26	64.55	17.72	0.27
NMB	36.72	64.78	73.22	84.51	98.52	71.55	20.77	0.29
MBL	44.21	52.29	58.63	72.47	91.56	63.83	16.67	0.26
NIBL	90.63	10.86	12.59	14.03	15.22	28.67	31.02	1.08
Mean	51.48	55.32	63.70	77.57	93.39			
SD	27.37	28.15	29.86	30.84	35.44			
CV	0.53	0.51	0.47	0.40	0.38			

Sources: Annual report

The mean, standard deviation and coefficient of variation of deposit indicated that average deposit of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL. Highest for NABIL (Rs. 126.75 Billion), followed by ADBL (Rs. 97.46 Billion), NBL (Rs. 95.89 Billion), SIDBL (Rs. 82.25 Billion), NMB (Rs. 71.55 Billion), PCBL (Rs. 64.55 Billion), MBL (Rs. 63.83 Billion), SBL (Rs. 62.03 Billion), MEBL (Rs. 47.13 Billion), KBL (Rs. 44.12 Billion), CBL (Rs. 35.24 Billion), NIBL (Rs. 28.67 Billion). The average deposit computed across the year

fluctuated over a period of time it increased from Rs. 51.47 Billion in 2014 to Rs.104.80 Billion in 2019.

We can find that the bank NABIL has highest mean deposit i.e. 12.67 Billion whereas NIBL has lowest mean deposit i.e.12.35 Billion. The bank SIDBL has highest S.D i.e. 27.32 whereas NBL has lowest S.D i.e. 13.28 Billion. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower than others i.e. 14% whereas bank MEBL has high risk and low consistent than other banks because C.V. of MEBL is higher than others i.e. 47%.

Figure 4.1: Average deposit current position of selected Nepalese commercial banks.

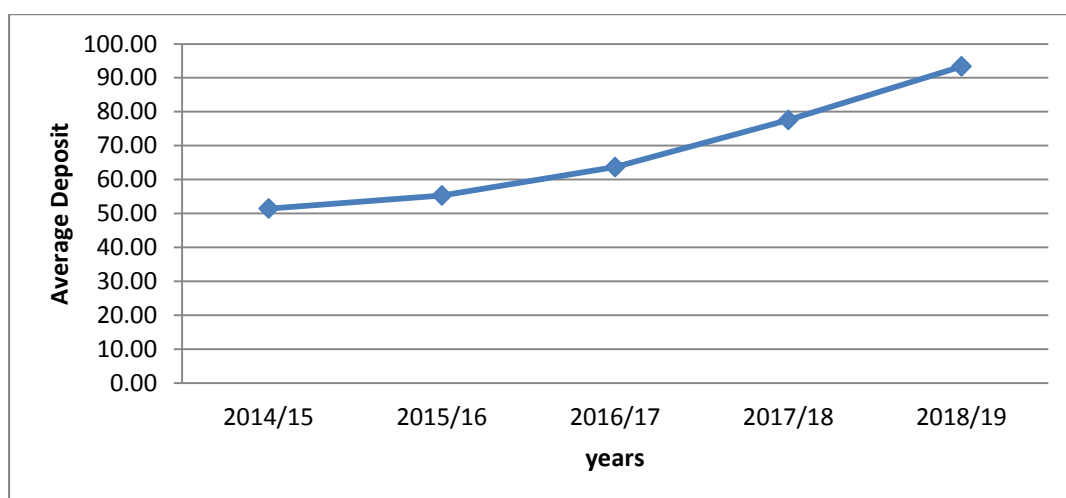


Figure 4.1 shows the comparative pattern of average deposit of commercial banks from 2015 to 2019. The graph shows that average deposit has increased from Rs. 51.47 Billion in 2015 to Rs.104.80 Billion in 2019. The average deposit current position is upward sloping indicating the continuous increment in average deposit.

Table 4.1 shows the structure and pattern of deposits in selected Nepalese commercial banks.

Table 4.2: Calculation of interest rate for the period 2015 to 2019. (in percentage)

Banks	2014/15	2015/16	2016/17	2017/18	2018/19	Mean	SD	CV
NBL	5.18	4.96	4.8	4.99	4.45	4.88	0.27	0.06
NABIL	5.08	3.97	3.74	4.32	4.48	4.32	0.52	0.12
ADBL	7.97	7.15	5.87	5.46	4.68	6.23	1.32	0.21
MEBL	3.62	4.32	3.85	3.91	4.33	4.01	0.31	0.08
KBL	3.71	3.17	3.59	3.26	3.12	3.37	0.26	0.08
SIDBL	3.82	4.39	4.65	3.86	4.15	4.17	0.35	0.08
CBL	4.05	4.2	4.18	4.61	3.97	4.20	0.25	0.06
SBL	3.83	4.63	4.26	4.66	4.35	4.35	0.34	0.08
PCBL	3.42	3.34	3.45	4.23	4.32	3.75	0.48	0.13
NMB	6.36	6.31	4.89	4.97	4.93	5.49	0.77	0.14
MBL	4.65	4.59	4.27	4.75	4.27	4.51	0.22	0.05
NIBL	4.61	4.66	4.34	4.3	4.32	4.45	0.17	0.04
Mean	4.69	4.64	4.32	4.44	4.28			
SD	1.28	1.07	0.64	0.57	0.42			
CV	0.27	0.23	0.15	0.13	0.10			

Sources: Annual report

From the table 4.2 it is clear that the mean, standard deviation and coefficient of variation of Interest Rate e of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL. We can find that the bank ADBL has highest mean interest rate i.e. 6.23% whereas KBL has lowest mean interest rate i.e. 3.37%. Like that the bank has highest S.D. i.e. 1.32 %whereas ADBL and lowest S.D. i.e.0.17% whereas NIBL. The bank NIBL has low risk and more consistent than other banks because C.V. of NIBL is lower than others i.e. 3.9%whereas bank ADBL has high risk and low consistent than other banks because C.V. of ADBL is higher than others i.e.21.25%.

Figure 4.2: Average interest rate current position of selected Nepalese commercial banks

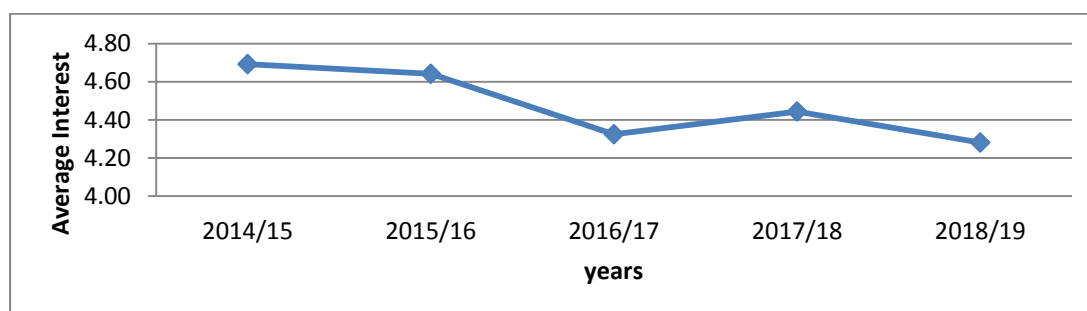


Figure 4.2 shows the comparative pattern of average interest rate of commercial banks from 2015 to 2019. The graph shows that average interest rate has decreased from 4.69% in 2015 to 4.28% in 2019. The average interest rate current position is downward sloping indicating the average interest rate deposit.

Table 4.2 shows the structure and pattern of interest rate in selected Nepalese commercial banks.

Table 4.3: Calculation of investment for the period 2015 to 2019 (Rs in Billion)

Banks	2014/15	2015/16	2016/17	2017/18	2018/19	Mean	SD	CV
NBL	16.94	12.89	12.20	16.25	16.43	14.94	1.98	0.13
NABIL	30.97	36.53	32.59	28.67	42.51	34.25	4.86	0.14
ADBL	13.54	14.02	15.94	1.21	16.95	12.33	5.70	0.46
MEBL	19.94	47.07	44.84	81.96	12.58	41.28	24.41	0.59
KBL	5.30	7.74	8.04	9.02	9.34	7.89	1.42	0.18
SIDBL	66.65	10.77	11.82	12.58	18.66	24.10	21.45	0.89
CBL	1.61	2.41	1.18	1.97	4.13	2.26	1.02	0.45
SBL	7.74	1.07	0.91	1.32	1.70	2.55	2.61	0.23
PCBL	57.43	50.60	61.45	84.28	10.14	52.78	24.13	0.46
NMB	59.84	85.04	10.60	10.02	10.91	35.28	31.37	0.82
MBL	4.48	6.02	6.14	7.73	10.51	6.98	2.04	0.29
NIBL	21.46	29.23	14.71	13.74	17.23	19.27	5.65	0.29
Mean	25.16	24.83	17.91	21.82	13.47			
SD	22.56	24.74	18.12	28.48	10.49			
CV	0.90	0.13	0.60	0.31	0.78			

Sources: Annual Report

The mean, standard deviation and coefficient of variation of investment indicated that average investment of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL. Highest for PCBL (Rs. 52.78 Billion), followed by MEBL (Rs.41.27 Billion),NMB (Rs.35.28 Billion),NABIL (Rs.34.254 Billion) SIDBL (Rs.24.09 Billion), NIBL (Rs.19.27 Billion),MBL (RS.14.93Billion), ADBL (Rs.12.33Billion),KBL(Rs.7.88Billion),MBL(Rs.6.98Billion)

SBL(Rs.2.54Billion),CBL(Rs.2.26Billion),. Investment computed across the year fluctuated over a period of time it decrease from Rs. 25.155 Billion in 2014 to Rs.13.04 Billion in 2019.

We can find that the bank CBL has highest average investment i.e. 2.26 Billion whereas CBL has lowest average investment i.e.2.26 Billion. Like that the bank NMB has highest S.D i.e. 31.37 Billion whereas MBL has lowest S.D i.e.2.04 Billion. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is

lower than others i.e. 13% whereas bank MEBL has high risk and low consistent than other banks because C.V. of SIDBL is higher than others i.e. 89%.

Figure 4.3: Average investment current positions of selected Nepalese commercial banks

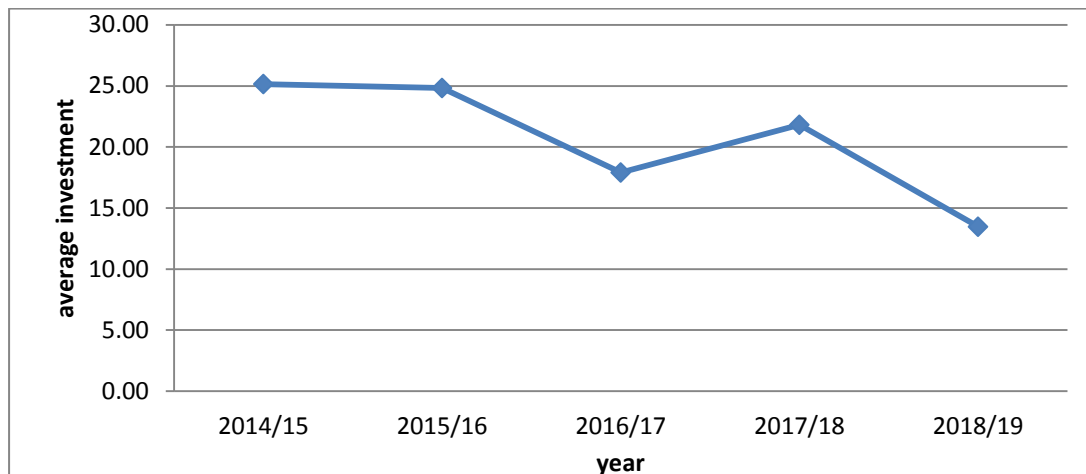


Figure 4.3 shows the comparative pattern of average investment of commercial banks from 2015 to 2019. The graph shows that average investment has decreased from Rs. 25.15 Billion in 2015 to Rs. 13.46 Billion in 2019. The average investment current position is downward sloping indicating the average investment.

Table 4.3 shows the structure and pattern of investment in selected Nepalese commercial banks.

Table 4.4: Calculation of loan and advance for the period 2015 to 2019 (Rs in Billion)

Banks	2014/15	2015/16	2016/17	2017/18	2018/19	Mean	SD	CV
NBL	53.39	63.52	74.37	89.63	97.66	75.72	18.19	0.24
NABIL	65.50	7.77	9.15	11.54	13.58	21.51	24.69	1.15
ADBL	25.19	19.41	15.88	98.59	110.09	53.83	46.41	0.86
MEBL	19.94	47.07	44.84	81.96	12.58	41.28	27.30	0.66
KBL	27.07	30.11	45.20	62.74	76.58	48.34	21.21	0.44
SIDBL	66.65	10.77	11.82	12.58	18.66	24.10	23.98	1.00
CBL	15.05	20.35	25.08	39.51	54.99	31.00	16.21	0.52
SBL	28.26	40.46	51.64	69.24	83.44	54.61	22.07	0.40
PCBL	33.47	41.09	58.69	69.97	75.56	55.76	18.13	0.33
NMB	27.29	54.46	62.61	75.65	91.89	62.38	24.19	0.39
MBL	34.82	44.23	51.87	6.42	7.75	29.02	20.92	0.72
NIBL	6.77	8.70	10.67	12.08	12.71	10.19	2.45	0.24
Mean	33.62	32.33	38.48	52.49	54.62			
SD	18.11	18.04	21.89	32.65	37.38			
CV	0.54	0.56	0.57	0.62	0.68			

Source: Annual report

The mean, standard deviation and coefficient of variation of deposit indicated that average deposit of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL. Highest for NBL (Rs.75.07 Billion), followed by NMB (Rs. 62.37Billion),PCBL(Rs.55.75Billion),SBL(RS.54.60Billion),ADBL(Rs.53.83Billion), KBL(Rs.48.34Billion),MEBL(Rs.41.278Billion),CBL(Rs.30.99Billion),MBL(Rs.29.01Billion),SIDBL(Rs.24.09Billion),NABIL(Rs.21.50Billion),NIBL (Rs. 10.18Billion). The average loan and advance computed across the year fluctuated over a period of time it increased from Rs. 33.61 Billion in 2014 to Rs.54.62Billion in 2019.

We can find that the bank NBL has highest mean loan and advance i.e. 75.71Billion whereas NIBL has lowest mean deposit i.e.10.18 Billion. Like that the bank ADBL has highest S.D i.e.46.40 Billion whereas CBL has lowest S.D i.e. 16.20 Billion. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower than others i.e. 24% .Whereas bank NABIL has high risk and low consistent than other banks because C.V. of NABIL is higher than others i.e.92%.

Figure 4.4: Average loan and advance current position of selected Nepalese commercial banks

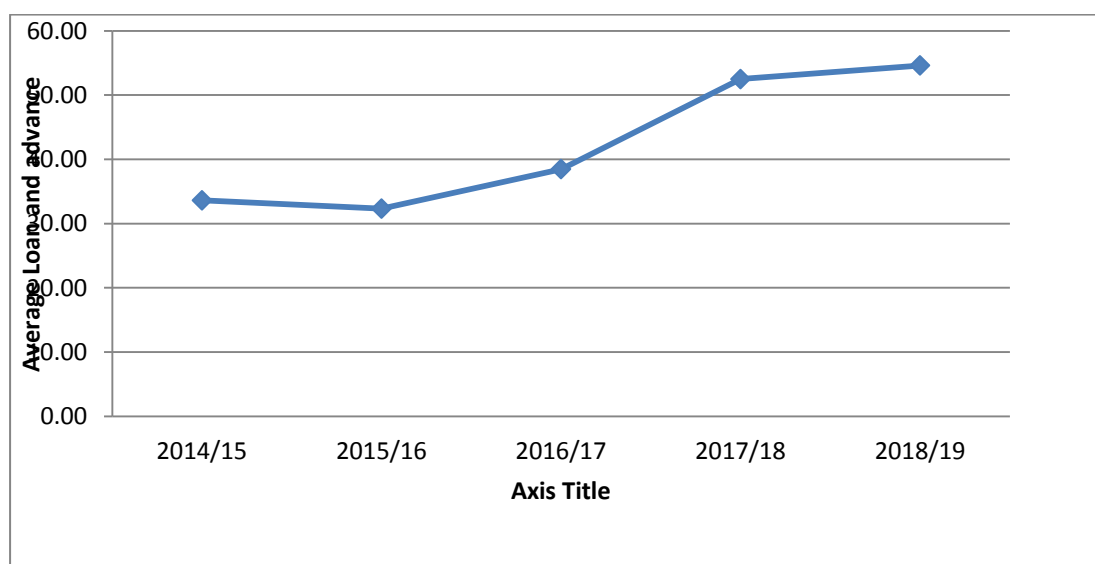


Figure 4.4 shows the comparative pattern of average loan and advance of commercial banks from 2015 to 2019. The graph shows that average loan and advance has increased from Rs. 33.61 Billion in 2015 to Rs. 54.62 Billion in 2019. The average loan and advance current position is upward sloping indicating the continuous increment in loan and advance.

Table 4.4 shows the structure and pattern of loan and advance in selected Nepalese commercial banks.

4.2 Analysis of Different Ratios

4.2.1 Loan and advances to total deposit ratio

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

Table 4.5: Loan and advances to total deposit ratio for the period 2015 to 2019 (in percentage)

Bank /Year	2014/15	2015/16	2016/17	2017/18	2018/19	Average
NBL	65.35	70.18	77.90	78.43	80.93	74.56
NABIL	62.84	67.85	69.17	8.03	8.13	43.20
ADBL	32.70	22.21	15.91	94.64	92.60	51.61
MEBL	85.17	90.49	90.38	90.95	88.85	89.17
KBL	98.16	90.09	119.09	120.57	109.95	107.57
SIDBL	82.93	87.02	87.00	86.08	89.65	86.54
CBL	81.80	81.58	86.59	92.76	89.67	86.48
SBL	83.01	87.15	88.69	87.45	90.42	87.34
PCBL	81.63	85.00	89.12	86.06	87.60	85.88
NMB	74.31	84.07	85.50	89.51	93.27	85.33
MBL	78.77	84.59	88.47	8.86	7.87	53.71
NIBL	7.47	8.01	8.47	8.61	8.35	8.18

Source: Annual reports of respective banks

From the table 4.5 it is depicted that loan and advances to total deposit ratio of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL are 74.56%, 43.20%, 51.61%, 89.17%, 107.57%, 86.54%, 86.48%, 87.34%, 85.88%, 85.33%, 53.71%, 8.18%, respectively in average. The average ratio of KBL is higher than other banks whereas the average ratio of NIBL is lower than the other banks. The loan and advance to the total deposit ratio of all banks are in an increasing trend. This

indicates that all the sample banks under the study are able to mobilise its funds to the maximum extent.

4.4.2 Total investment to total deposit ratio

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

Table 4.6: Total investment to total deposit ratio for the period 2015 to 2019 (in percentage)

Bank /Year	2014/15	2015/16	2016/17	2017/18	2018/19	Average
NBL	21.67	14.36	13.41	16.28	13.89	15.92
NABIL	3.00	3.29	2.51	2.11	2.59	2.70
ADBL	17.57	16.04	15.97	1.17	14.25	13.00
MEBL	94.35	153.06	115.16	130.17	15.37	101.62
KBL	19.22	23.17	21.18	17.34	13.41	18.86
SIDBL	148.97	16.59	15.28	12.37	15.23	41.69
CBL	3.29	9.66	4.09	4.63	6.74	5.68
SBL	22.74	2.29	1.56	1.66	1.84	6.02
PCBL	140.06	104.67	93.32	103.66	11.76	90.69
NMB	162.95	131.27	14.47	11.86	11.07	66.32
MBL	10.13	11.51	10.48	10.67	11.47	10.85
NIBL	23.68	26.91	11.68	9.79	11.32	16.68

Source: Annual Reports of Respective Banks

From the table 4.6 it is clear that total investment to total deposit ratio of are NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL 15.92%, 2.70%, 13.00%, 101.62%, 18.86%, 41.69%, 5.68%, 6.02%, 90.69%,66.32%, 10.85 and 16.68 in an average in the period under study. The average ratio of Mega Bank is higher than other banks. The average ratio of NABIL is lower than other banks. MEBL has properly mobilizes its deposit funds. MEBL has mobilises its fund more in investment than loan & advances.

4.4.4 Interest income to loan & advances ratio

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

Table 4.7: Interest income to loan & advances ratio for the period 2015 to 2019 (in percentage)

Bank /Year	2014/15	2015/16	2016/17	2017/18	2018/19	Average
NBL	9.59	9.86	9.73	12.22	11.23	10.53
NABIL	10.16	8.50	8.08	9.44	11.36	9.51
ADBL	42.28	42.47	39.53	28.88	24.72	35.58
MEBL	9.55	9.69	11.27	13.17	13.32	11.40
KBL	10.19	8.81	8.56	8.36	10.91	9.37
SIDBL	8.49	6.89	9.12	10.86	11.14	9.30
CBL	9.36	9.15	8.02	7.9	11.23	9.13
SBL	8.92	7.98	9.76	11.71	12.89	10.25
PCBL	9.61	8.46	8.63	11.51	12.16	10.07
NMB	13.09	12.07	13.51	13.12	14.17	13.19
MBL	8.93	7.9	9.87	12.09	12.96	10.35
NIBL	9.00	8.40	9.00	11.00	10.90	9.66

Source: Annual Reports of Respective Banks

From the table 4.7 it is clear that the average interest income to loan & advances ratio of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL are 10.53%, 9.51%, 35.58%, 11.40%, 9.37%, 9.30%, 9.13%, 10.25%, 10.07%, 13.19%, 10.35% and 9.66% respectively. The ADBL has the highest ratio and CBL has the lowest ratio it means ADBL shows good financial position than other banks.

4.4.5 Interest rate spread

The interest rate spread measures the effectiveness of the bank in the intermediation function, where the bank borrows the fund at one lower level of interest rate and lend at another higher level of interest rate. The spread also use to identify the intensity of competition among banks in the market. Higher positive interest spread shows the successfulness of the bank in collecting the funds at cheaper rate and granting them at higher rate. The higher interest rate spread is not possible for most banks in the time of strong competition. In this case, bank management seeks to look for other new revenue generating services to its clients to make up the decreased spread. The interest rate spread is the difference in the interest rate between the lending rate and the deposit rate.

The interest rate can be calculated as follow:

Interest rate spread = Interest rate on lending – Interest Rate on deposit.

The following table below clearly states the spread of interest rates in all the commercial banks in Nepal. The spread has been shown above from the fiscal year 2014/15 to 2018/19.

Table 4.8: Interest rate spread for the period 2015 to 2019 (in percentage)

Bank /Year	2014/15	2015/16	2016/17	2017/18	2018/19	Average
NBL	5.18	4.96	4.80	4.99	4.45	4.88
NABIL	5.08	3.97	3.74	4.32	4.48	4.32
ADBL	5.18	4.96	4.8	4.99	4.45	4.88
MEBL	3.62	4.32	3.85	3.91	4.33	4.01
KBL	3.71	3.17	3.59	3.26	3.12	3.37
SIDBL	3.82	4.39	4.65	3.86	4.15	4.17
CBL	4.05	4.2	4.18	4.61	3.97	4.20
SBL	3.83	4.63	4.26	4.66	4.35	4.35
PCBL	3.42	3.34	3.45	4.23	4.32	3.75
NMB	6.36	6.31	4.89	4.97	4.93	5.49
MBL	4.65	4.59	4.27	4.75	4.27	4.51
NIBL	4.61	4.66	4.34	4.30	4.32	4.45

Source: Annual Reports of Respective Banks

From the table 4.8 it is clear that the interest spread rate of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL are 4.88%, 3.32%,

4.88%, 4.01%, 3.37%, 4.17%, 4.20%, 4.35%, 3.75%, 5.49%, 4.5% and 4.45% respectively in average. The interest spread rate as per NMB directives requirement i.e. 5.49% so NMB is not successful to maintain spread rate to 5.49%. Therefore it is big problem to commercial banks because the main income of commercial bank is difference between interest paid and received. Bank has to manage all expenses through it and the spread rate seems very low of all sample banks except.

4.3 Correlation analysis

Correlation is a statistical measure that indicates the extent to which two or more variables fluctuate together. It is used for checking directional relationship between variables. Having indicated the descriptive statistics, Pearson correlation coefficients are computed and the results are presented.

Table 4.9: More specifically, it shows the correlation coefficients of dependent and independent variables.

Variables	IN	DA	IA	LA
IN	1.000			
DA	0.236*	1.000		
IA	0.058	0.573**	1.000	
LA	0.055	0.645**	0.64**	1.000

Sources: SPSS output

** Correlation is significant at 0.01level (2-tailed)

*Correlation is significant at the 0.05level (2-tailed)

4.9 Shows the Pearson correlation coefficients for selected commercial banks interest rate, deposit amount, investment amount and loan amount. The result reveals that interest rate is positively correlated to deposit amount, which indicates that higher the interest rate, higher would be the deposit amount. Similarly, interest rate is positively correlated to investment amount. This indicates that higher the interest rate, higher would be the investment amount. Similarly, the interest rate is positively correlated to loan amount. It states that increase in interest rate leads to increase in investment amount.

4.4 Regression analysis

In order to test the statistical significance and strength of the results, this study also relies on secondary data analysis. It basically deals with regression results from various specifications of the model to examine the estimated impact of interest rate with commercial bank specific variables for 12 samples of commercial banks for the period 2014/15 through 2018/19. In this section, an attempt also has been made to test the validity of the model through statistical test of significance such as F-test, adjusted coefficient of determination (Adj. R²), Standard error (SEE). The regression results have been reported in Table 4.10. The table presents the regression results for overall banks. If one takes a look at the relationships between the different variables in model.

Table 4.10: Estimated impact from regression of interest rate on deposit amount, investment amount, and loan amount for 12 Sample commercial banks during the Period 2014/15 through 2018/19

Model	Intercept	Regression coefficients of			R ²	SEE	F	P-value
		DA	IA	LA				
1	10.629	0.053	-	-	0.04	0.5614	11.406	0.04
2	12.696	-	0.118	-	0.052	0.5315	6.651	0.05
3	10.130	-	-	0.023	0.007	0.7710	10.245	0.04
4	13.811	0.034	0.112	-	0.048	0.7495	3.622	0.24
5	19.898	0.078	-	0.038	0.034	0.585	10.848	0.05
6	16.823	-	0.117	0.014	0.043	0.7514	3.342	0.03
7	14.024	6.607	0.416	0.327	0.375	0.6425	3.791	0.04

Sources: SPSS output

From the result obtained, deposit amount (DA), investment amount (IA) and loan amount (LA) are posit and significant at 5% level. The main reason for the high fit in R-squared is because there is a strong correlation between the dependent variable (IN) and the independent variables (DA, LA, IA). The implication is that all the independent variables are positively related to interest rate.

The regression results of interest rate, deposit amount, loan amount and investment amount personated in table 4.10.This table presents the beta coefficient and p-value

for the least square solution of the total sample commercial banks. The first row of the table 4.10 regression has been employed. The first specification model of table 4.10 shows the regression analysis of interest rate on deposit amount, loan amount and investment amount of the banks. The simple regression result of interest rate on deposit amount in specification 1 show a positive relationship of interest rate with deposit amount. The slope coefficient of bank deposit is positively significant at 5 percent level which implies that banks interest rate increases with banks deposit amount. The reported F-statistic (11.406) is also significant at 5 percent level meaning that the model explains. It shows that deposit rate have certain impact in Nepalese commercial banks.

Similarly, the regression result of commercial banks interest rate, Investment amount in specification 2 shows a positive relationship between interest rate and Investment amount and the regression coefficient of firm size is statistically significant at 5 percent level. Although, reported F-statistic (6.651) is also significant at 5 percent level, the adjusted coefficient of determination is only 0.052 which is very low. It implies that only 5.2 percent of the total variations in banks interest rate are captured by investment amount. In another simple regression result of specification 3 shows a positive relationship between interest rate and loan amount and the coefficient is significant at 5 percent level. The result shows, however, that only 0.7 percent variability associated with banks interest rate are explained by loan amount. The explanatory power of the models has also been improved in specifications 4 and 5 with the inclusion of these variables. These results confirm to those obtained in bivariate analysis of commercial banks interest rate on deposit amount and investment and loan amount. However, use of banks deposit, loan and investment amount together as repressors in the results statistical significance at 5 percent level, while banks loan amount and investment amount its statistical significant although the observed direction of relationship is positive. These results suggest that investment amount, deposit amount and loan amount consistently predict. In specification 6 seems to improve the performance of deposit amount, investment amount and loan amount because coefficients of these variables are significant. Specification 7 represents full form of the model, where all commercial banks specific variables are included as predictors. The regression results of specification 7 again establishes the

economic and statistical significance of deposit amount, loan and advance amount and investment amount.

4.5 Major Findings

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

- i. The structure and pattern analysis of deposit shows that NABIL has highest average deposit (Rs. 12.67Billion) and lowest for NIBL (Rs. 12.35Billion). It has been found that deposit has increased in the majority of the selected commercial banks during the study period. The bank SIDBL has highest S.D i.e. 27.32Billion whereas NBL has lowest S.D i.e. 13.28 Billion. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower than others i.e. 14% whereas bank MEBL has high risk and low consistent than other banks because C.V. of MEBL is higher than others i.e. 47%.
- ii. The mean, standard deviation and coefficient of variation of interest rate ADBL has highest average interest rate i.e. 6.23% whereas KBL has lowest mean interest rate i.e. 3.37%. Like that the bank has highest S.D. i.e. 1.32 %whereas ADBL and lowest S.D. i.e.0.17% whereas NIBL. The bank NIBL has low risk and more consistent than other banks because C.V. of NIBL is lower than others i.e. 3.9%whereas bank ADBL has high risk and low consistent than other banks because C.V. of ADBL is higher than others i.e.21.25%.
- iii. The structure and pattern analysis of investment shows that PCBL has highest average investment i.e. 52.781Billion whereas CBL has lowest average investment i.e.2.26m Billion. Like that the bank NMB has highest S.D i.e. 3.13Billion whereas MBL has lowest S.D i.e.2.04 Billion. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower than others i.e. 13% whereas bank MEBL has high risk and low consistent than other banks because C.V. of SIDBL is higher than others i.e. 89%.

- iv. We can find that the bank NBL has highest average loan and advance i.e. 75.71 Billion whereas NIBL has lowest average loan and advance i.e.10.18Billion. Like that the bank ADBL has highest S.D i.e.4.40Billion whereas CBL has lowest S.D i.e. 16.20Billion. The bank NBL has low risk and more consistent than other banks because C.V. of NBL is lower than others i.e. 24% .Whereas bank NABIL has high risk and low consistent than other banks because C.V. of NABIL is higher than others i.e.92%.
- v. Ratio analysis is found that depicted that Loan and Advances to Total Deposit Ratio of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL are 74.56%, 43.20%, 51.61%, 89.17%, 107.57%, 86.54%, 86.48%, 87.34%, 85.88%, 85.33%, 53.71%, 8.18%, respectively in average. The average ratio of KBL is higher than other banks whereas the average ratio of NIBL is lower than the other banks. The loan and advance to the total deposit ratio of all banks are in an increasing trend. This indicates that all the sample banks under the study are able to mobilize its funds to the maximum extent.
- vi. The total investment to total deposit ratio are NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL 15.92%, 2.70%, 13.00%, 101.62%, 18.86%, 41.69%, 5.68%, 6.02%, 90.69%,66.32%, 10.85 and 16.68 in an average in the period under study. The average ratio of Mega Bank is higher than other banks. The average ratio of NABIL is lower than other banks. MEBL has properly mobilizes its deposit funds.
- vii. The interest income to loan & advances ratio of NBL, NABIL, ADBL, MEBL, KBL, SIDBL, CBL, SBL, PCBL, NMB, MBL and NIBL are 10.53%, 9.51%, 35.58%, 11.40%, 9.37%, 9.30%, 9.13%, 10.25%,10.07%, 13.19%, 10.35% and 19.66%respectively. The ADBL has the highest ratio and CBL has the lowest ratio it means ADBL shows good financial position than other banks.
- viii. The Positive correlation between the dependent variable and the independent variable confirms the fact that interest rate has major influence on the deposit mobilization in Nepalese commercial banks

- ix. The correlation coefficients for selected commercial banks interest rate, deposit amount, investment amount and loan amount. The result reveals that interest rate is positively correlated to deposit amount, which indicates that higher the interest rate, higher would be the deposit amount. Similarly, interest rate is positively correlated to investment amount.
- x. The interest rate, higher would be the investment amount. Similarly, the interest rate is positively correlated to loan amount. It states that increase in interest rate leads to increase in investment amount.
- xi. The regression results of interest rate, deposit amount, loan amount and investment amount personated in presents the beta coefficient and p-value for the least square solution of the total sample commercial banks.
- xii. Simple regression result of interest rate on deposit amount in positive relationship of interest rate with deposit, investment and loan amount. The slope coefficient of bank deposit is positively significant at 5 percent level which implies that banks interest rate increases with banks deposit amount.
- xiii. The regression result of commercial banks interest rate, Investment amount in specification shows a positive relationship between interest rate and Investment amount and the regression coefficient of firm size is statistically significant.
- xiv. The regression results of specification again establish the economic and statistical significance of deposit amount, loan and advance amount and investment amount.

CHAPTER V

CONCLUSION

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

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

5.1 Discussion

Natural resources of the country Nepal remains unused and unutilized due to the lack of financing and technical know-how. In order to mobilize the limited capital, the government of Nepal adopted the liberalization policy. As result up to now 27 Commercial banks, 25 Development banks, 22 Finance companies and 91 Micro-credit. Financial system is hoped to develop the economy and help to raise the living standard of the people. Financial intermediaries mobilize the fund by collecting the scattered resources from the savers and provide the collected funds to the users or investors the intermediaries of financial systems sustain by lending the fund on higher interest rate and paying the deposit holder a little interest. It means that such organization survive by making profit through a large interest spread on deposit and lending. The decision made to charge and provide interest on lending and deposit affects the profit position of the organization. Depositors are generally attracted by offering the higher interest rates. Bank acts as an intermediary for transformation of fund from surplus unit to deficit unit in an effective and efficient manner. Banks collect deposits from general public providing certain rate of interest in order to provide loans to different needy persons or business houses at higher interest rate. In

this way financial institutions makes profit and profit is essential for the survival of growth (Ojwiya, 2009).

Similarly high credit rates de-motivate the investors as a result investment in the country shrinks down. Though there are various factors in the economy that affects the deposit amount and lending amount; interest rate is one of the major factor that affect deposit and lending amount. With the major objective of showing relationship between deposit rate and deposit amount i.e. substitution effect, lending rate and lending amount, inflation and interest rate, this study is undertaken. After that financial intermediaries charge and offer, but time to time, NRB uses to issue directives regarding overall performance of the financial institutions. Therefore, in past few years back, banks and other financial institutions get freedom to quote the interest rate on lending and deposit. This creates the competition in the Nepalese economy. In this sense, this study is conducted to identify whether some of the theories of finance and economics are applicable or not in the Nepalese financial markets. These major theories are like substitution effect, fisher effect and inverse relationship between interest rate, sample organizations, statement of problem, and significance of the study research hypothesis and so on are made in the first chapter of this dissertation.

In second chapter, theoretical reviews as well as review of previous research has been made. Different views about interest function of interest theories of interest factors affecting interest rate and so on are reviewed on that chapter. On the theories of interest mainly five theories – the Classical Theory, Liquidity Preference Theory, Loanable Fund Theory, Rational Expectation Theory and Modern Theory- are reviewed. Similarly the factor affecting interest rate like default risk, Marketability risk, Exchange rate risk and so on are explained. Similarly, the in order to identify the relationship of interest rate and inflation, Fisher effect, Harrod- Keynes effect are also studied on the second chapter.

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

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

5.2 Conclusion

From the analysis of relevant data of sample banks under the study: using various statistical tools and financial tools mentioned in chapter three and from their findings conclusion has drawn. This study concludes that fluctuations in the interest rate of the commercial banks slightly affect the deposit mobilization. When there is a slight increase or decrease in interest rates of deposits and lending then changes its deposit and lending amount. The interest rate spread (deposit and lending) of all sample banks are found to be fluctuating trend. But contrary to this, deposit amount and lending amount is increasing every year. Clarify the above calculation of correlation coefficient between deposit amount and interest rate on deposit of all the sample banks was found to be positive. It reveals that the movement of total deposit and interest rate is found in different direction whereas it shows positive relationship; it reveals that the movement of total deposit and interest rate is found in similar direction.

According to Fisher effect, there should be positive correlation between these two variables but the interest rate in Nepalese financial market is affected by inflation rate to same extent only during the study period, it is found that, there exist the high spread between deposit interest rate and lending interest rate. That may be due to competitive financial environment and less availability of investment opportunity. It is also found that, lending interest rate of productive sector loan such as commercial loan, industrial loan, trade credit, working capital loan were decreased lesser in magnitude in comparison to the non productive sector loan.

5.3 Implications

5.3.1 General Implication

To fulfill the objectives of this study, related data and ideas are collected from different sources. These data are presented; analyzed and interpreted then conclusions are made. Based on the analysis, interpretation and conclusions, certain implication

can be made here. So that the concerned authorities, future researchers, academicians, bankers can get same insights on the present conditions and above topics. It is considered that this research will be fruitful for them to improve the present condition as well as for further research. The major implications are:

- i. The study suggests that to increase the interest rate on deposit as far as possible so that the depositors are attracted which helps to generate more capital for the development of the economy. Though this situation reduces their profit opportunities, but it will enhance the economic condition of the country in the long run.
- ii. Analysis of correlation coefficient between total deposit and investment is of a high degree of positive relationship. It reveals that the movement of deposit and investment is found in similar direction. The value of 'r' explains that a percentage change in deposit likely generates the same percentage of change in the value of investment.
- iii. Analysis of correlation coefficient between total deposit and loan & advances is of a high degree of positive relationship between two variables. It reveals that the movement of deposit and loan and advances is found in similar direction. If deposit increases, then loan and advances also increase and vice versa.
- iv. Analysis of regression interest rate on deposit amount in positive relationship of interest rate with deposit, investment and loan amount. The slope coefficient of bank deposit is positively significant at 5 percent level which implies that banks' interest rate increases with banks' deposit amount.
- v. From the current position interest rate of NBL and NABIL is in a decreasing position it shows that interest rate of NBL and NABIL is not deposit motivated. It means future deposit will definitely decrease. And performance of the banks also will decrease. So this study suggests that the NBL and NABIL need to increase interest rate according to the competitive market.
- vi. Current position of investment of NBL is in a decreasing position. It shows that the deposit is not effectively utilized in opportunities in the market and bank shares. It means in the long run income of the bank is in danger. So I suggest that the

bank should need to increase investment amount to stable its profit in competitive market.

- vii. Except some well-established bank many commercial banks have interest income as main source of income. The higher dependence in interest income should be gradually decreased as it bears higher risk on bank's part. Banks should explore more avenues to increase commission-based income by increasing facilities and networks.
- viii. Banks are not able to mobilize to its deposits in terms of investment due to lack of sufficient safe investment opportunities. So this study suggests that the government has to improve the political situation of the country.
- ix. The central banks of Nepal, NRB should pay special attention towards decreasing position of interest rate on deposit of govt. banks. It may cause different bad effect in the commercial banks and country such as disintermediation, lack of savings and further saving may go outside of the country.
- x. The interest spread rate The interest spread rate as per NMB directives requirement i.e. 5.49% so NMB is not successful to maintain spread rate to 5.49%. Therefore it is big problem to commercial banks because the main income of commercial bank is difference between interest paid and received. Bank has to manage all expenses through it and the spread rate seems very low of all sample banks except.

5.3.2 Implications for future studies

- i. This result is basically from the commercial bank of Nepal. Thus, the future study may include other financial sector such as development bank, finance companies, and micro finance, companies.
- ii. The sample size and time period taken for the study is limited so future study can be conducted by taking large sample size for longer time period. The model used in this study is limited on simple linear regression models. Thus, other models can be taken to examine the Credit risk management and banks performance.

- iii. This study is based only on secondary data and does not include the preference of different investors. Therefore, future studies can be conducted using primary data.

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APPENDIX

Appendix I: Total Deposits of Nepalese Commercial Banks for the Period of 2015 to 2019 (Rs. in Billions)

Banks	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	78.00	89.41	93.94	99.83	118.28
NABIL	104.24	110.27	118.90	135.98	164.37
ADBL	77.04	87.39	99.82	104.18	118.88
MEBL	21.13	30.75	38.94	62.97	81.87
KBL	27.58	33.42	37.95	52.04	69.65
SIDBL	44.74	64.93	77.32	101.75	122.53
CBL	18.39	24.95	28.97	42.59	61.32
SBL	34.05	46.42	58.23	79.18	92.28
PCBL	41.01	48.34	65.86	81.30	86.26
NMB	36.72	64.78	73.22	84.51	98.52
MBL	44.21	52.29	58.63	72.47	91.56
NIBL	90.63	108.63	125.91	140.33	152.18

Appendix II: Interest Rate of Nepalese Commercial Banks for the Period of 2015 to 2019 (In percentage)

Banks	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	5.18	4.96	4.8	4.99	4.45
NABIL	5.08	3.97	3.74	4.32	4.48
ADBL	7.97	7.15	5.87	5.46	4.68
MEBL	3.62	4.32	3.85	3.91	4.33
KBL	3.71	3.17	3.59	3.26	3.12
SIDBL	3.82	4.39	4.65	3.86	4.15
CBL	4.05	4.2	4.18	4.61	3.97
SBL	3.83	4.63	4.26	4.66	4.35
PCBL	3.42	3.34	3.45	4.23	4.32
NMB	6.36	6.31	4.89	4.97	4.93
MBL	4.65	4.59	4.27	4.75	4.27
NIBL	4.61	4.66	4.34	4.3	4.32

**Appendix III: Investment Amount of Nepalese Commercial Banks for the Period
of 2015 to 2019 (Rs in Billions)**

Banks	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	16.94	12.89	12.20	16.25	16.43
NABIL	30.97	36.53	32.59	28.67	42.51
ADBL	13.54	14.02	15.94	1.21	16.95
MEBL	19.94	47.07	44.84	81.96	12.58
KBL	5.30	7.74	8.04	9.02	9.34
SIDBL	66.65	10.77	11.82	12.58	18.66
CBL	0.61	2.41	1.18	1.97	4.13
SBL	7.74	1.07	0.91	1.32	1.70
PCBL	57.43	50.60	61.45	84.28	10.14
NMB	59.84	85.04	10.60	10.02	10.91
MBL	0.45	0.60	0.61	0.77	1.05
NIBL	21.46	29.23	14.71	13.74	17.23

**Appendix IV: Loan and Advances of Nepalese Commercial Banks for the Period
of 2015 to 2019 (Rs in Billions)**

Banks	2014/15	2015/16	2016/17	2017/18	2018/19
NBL	53.39	63.52	74.37	89.63	97.66
NABIL	65.50	7.77	9.15	11.54	13.58
ADBL	25.19	19.41	15.88	98.59	110.09
MEBL	19.94	47.07	44.84	81.96	12.58
KBL	27.07	30.11	45.20	62.74	76.58
SIDBL	66.65	10.77	11.82	12.58	18.66
CBL	15.05	20.35	25.08	39.51	54.99
SBL	28.26	40.46	51.64	69.24	83.44
PCBL	33.47	41.09	58.69	69.97	75.56
NMB	27.29	54.46	62.61	75.65	91.89
MBL	34.82	44.23	51.87	6.42	7.75
NIBL	6.77	8.70	10.67	12.08	12.71

**INTEREST RATE AND DEPOSIT MOBILIZATION IN
NEPALEASE COMMERCIAL BANK**

A Thesis Proposal

By

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CHAPTER I INTRODUCTION

1. Background of the study

Commercial banks, as financial intermediaries are expected to transfer resources from surplus units to deficit units. They mobilize funds from savers and allocate funds to deficit units based on their ability to pay principal and interest given associated risk. Funds are allocated to deficit units taking into account depositor's demands and to create a return for the intermediary. Capital in a free economy is allocated through the price system. The interest rate is the price paid to the borrowed capital. When in the case of equity capital, investors' return comes in the form of dividends and capital gains. This cost is affected by various factors. The most fundamental things that affect cost of money are production opportunity and time preference for consumption (Marthethe and Shawky, 2003). The returns available within an economy from investment in productive assets determine 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.

Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets (Crosse, 1663). Interest can be thought of as "rent of money". Interest rates are fundamental to a 'capitalist society' and are normally expressed as a percentage rate over the period of one year. Interest rate as a price of money reflects market information regarding expected change in the purchasing power of money or future inflation (Ngtich and Wanjan, 2011).

Interest rate is sometimes referred to as the financial oil of the economy. Therefore, a vision on its development is of vital importance to every financial organization and to its clients. Predicting the interest rate, however, is hardly possible. Nevertheless, identifying the driving forces behind the interest could help to create an image of its future course. Combining these forces in a number of relevant, plausible and surprising scenarios, a clear image of the risks and uncertainties with regard to interest rate development in the future arises. The interest rate development has important consequences for the bank, for

instance for the interest rate margin (David,2012). Possible policy measures are being considered. But this is also important for the clients. For companies the interest rate to be paid is a major expense and often an indicator for the general economic situation and expectation. For consumers, the interest rate influences the burden of mortgage and in a roundabout way also the value of houses.

The collection of deposit and its mobilization are the two sides of the same coin, in the absence of one, another cannot work i.e. without the collection of deposit, mobilisation of deposits would be quite impossible and vice versa. They both get along with another under favourable condition. Interest is the main factor in fund activities of commercial banks. Interest rate affects on the collection of deposits mobilization of saving position.

The Commercial Banks (CBs) have been left with one main problem: how to determine its optimal interest rate exposure in order to retain its lenders (customers), sustain its operational cost, maintain NRB policy rates and ensure business growth in line with set targets at the beginning of the year. This has sent commercial banks asset and liability Committees (ALCO) to an intense analysis of its lending rate determinants with the current prevailing economic challenges coming from both customers and the regulator (Gaire,2007). Therefore, this study seeks to establish and analyze determinants of interest rate exposure of commercial banks in Nepal in order to provide affordable financial service and the same time ensures business growth is in line with the organization set objectives.

Financial institutions got freedom in fixing their interest rates in their deposits and loans. In addition, there was also limitation on the interest rate amounts on the different loans provided for productive and priority and full deprived sector. However, there were limitations on certain sectors of lending such as the rate of maximum of 15 percent on the priority sector loan. And for other kinds of loans, financial institutions were given freedom to maintain the interest rate structure. In this way the government has provided freedom as well as limitations on the determination of interest rate (Shrestha, 2000).

2. Statement of the problem

Banks traditionally perform a maturity transformation function using short-term deposits to finance long-term loans. The resulting mismatch between the maturity of the assets and liabilities exposes banks to reprising risk, which is often seen as the major source of the interest rate sensitivity of the banking system. Apart from reprising risk, banking firms are also subject to other types of sources of interest rate. As the economy has taken a reverse turn making the financial sector hitting the record low return it has not left the banking sector either (Agrawal, 2007).

Interest is the price that one pays for utilizing a certain amount of money for a specific period of time. Interest can thus be considered a cost for one entity and income for another. Interest rates 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 greater burden to carry if it is to shoulder responsibility to drag country towards prosperity. An appropriate interest rate is always sought to keep both parties i.e. depositors and borrowers at profitable minimum. Due to stiff competition between the banks to increase the volume of deposit and loans and investments it has been working under 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 of interest rate within and outside the bank has changed the banking habit of individual depositors (Keynes, 2006). This study basically deals with such impacts of interest rate on the deposit mobilization. The main attempt of this study has been answered the following questions.

- i. What is the current position of deposit, investment, loan and advance?
- ii. What is the relationship among interest with deposit, investment, loan and advances?
- iii. What is the impact of interest rate on deposit, investment, loan and advance?

3. Purpose of the study

The main objective of this study is to know the overall influence of interest rate on deposit of commercial banks as well as to identify whether the interest rate spread is

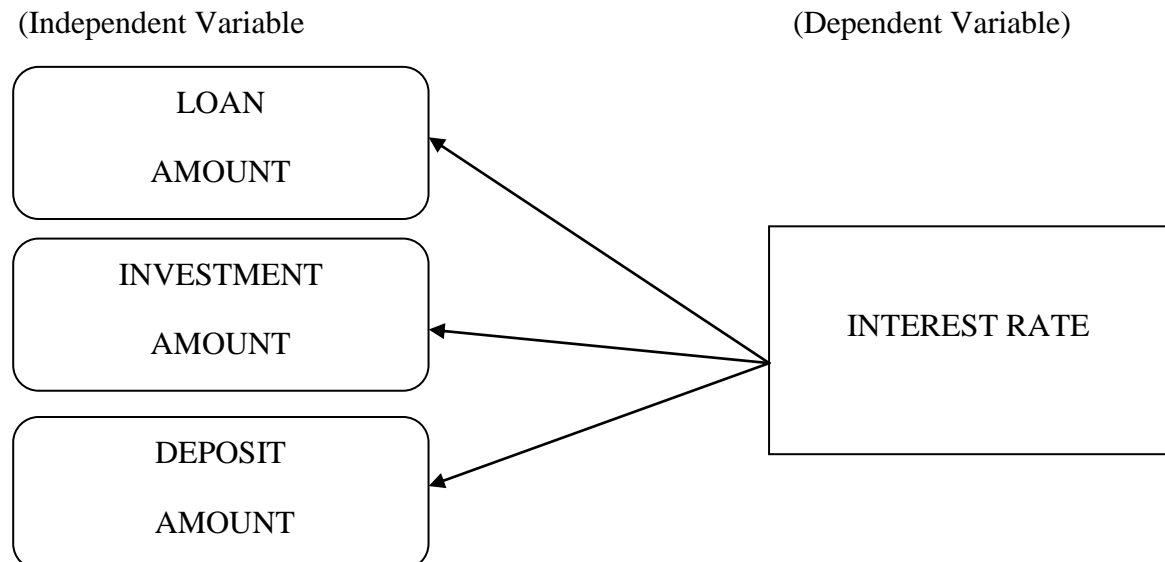
satisfactory or not. Besides this the other specific objectives related to this study are as given below.

- i. To analyse the current position of deposit, investment, loan and advance.
- ii. To assess the relationship among interest with deposit, investment, loan and advances.
- iii. To examine the impact of interest rate on deposit, investment and loan and advance.

4. Conceptual framework

A conceptual framework is use to limit the scope of the relevant by focusing on specific variables and defining specific viewpoint that the research will take in analysing and interpreting the data to be gathered it also facilitates the understanding of concepts and variables accounting to given definition and builds new knowledge by validating a challenging theoretical assumptions. In model the various independent variables named as deposit amount, investment amount and loan amount and their dependent variable named interest rate. The conceptual framework of this study has been shown in figure 2.1

Figure 2.1. Conceptual framework



Source: Ene et al (2017)

5. Significance of the Study

Commercial Banks will be able to understand the impact of interest rate of deposits mobilization of the banks firm. The prevailing margin between deposit-lending rates, the interest rate in an economy has important implications for the growth and development of bank firm, as numerous authors suggest, a critical link between the efficiency of bank intermediation and economic growth (Quaden, 2004).

- i. By the help of this study, general public can know the interest rates offered by banks for deposits of the Nepalese commercial banks.
- ii. The study of interest rate and its impact on deposits would provide information to the management of concern banks that would be helpful to take corrective actions in the banking activities.
- iii. This study provides valuable information that is necessary for the management of the banks, shareholders, general public and related parties

6. Limitation of study

- i. Out of 27 listed commercial banks only 12 commercial banks are considered for the purpose of study. Some banks got merged during the study period and some banks data were not available hence, such banks are excluded from the purpose of study.
- ii. It has only considered secondary data are for the study purpose. Data collection conducting primary survey is not taken into consideration. It is limited to the data available in the annual reports of the sample banks.
- iii. Lack of pertinent literature on commercial bank deposit in the Nepalese context.
- iv. This study has analyzed only last 5 years data beginning from 2014/15 to 2018/19

7. Literature review

Mashamba (2016) analyzed the relationship between banks' deposit interest rates and deposit mobilization in Zimbabwe for the period from 2000 to 2006. The study is developed based on an Ordinary Least Squares (OLS) model to show the relationship between the response and explanatory variables. The study found a positive relationship between deposit rates and banks' deposits for the period under study and all the other explanatory variables were statistically significant. The study also revealed that banks to

tap into the unbanked markets through massive branch expansion, offering low cost accounts and increasing interest offered on deposits to attract more deposits.

Schuz (1979) analyzed the institutional listed savings grew during the financial system deregulation era in line with the view that liberalisation of financial sector results in increase in supply of savings to the banking sector as expressed by Mckinnon and Shaw. The increase in aggregate savings is not unconnected to the higher interest rate offered for deposit with the bank. However, the resultant high borrowing cost discouraged the borrowers, especially private sector producers, as their capital became inefficiently costly.

Bhatta (2004) in his article, "Monetary Policy and Deposit Mobilization in Nepal" that the mobilization of domestic saving is one of the prime objectives of monetary policy in Nepal. For this purpose, commercial banks stood as the active and vital financial intermediary for generating resources in form of deposit of the investors in different aspects of the economy.

Schmidt-Hebbel (1999) reviewed the economic literature on saving provides a loan list of factor affecting the saving rates. Studies have found an ambiguous effect of increasing in real interest rate on saving because of a positive substitution effect toward future consumption and a negative income effect due to the increase real returns on saved wealth. (Fry, 1995) has found a small but positive interest rate elasticity of saving to be insignificant related to real interest rates. The empirical evidence on the effect of real interest rates on saving has proven to be inconclusive. The real interest rate affects the saving rate positively in Bangladesh and Nepal but negative in India, Pakistan and Srilanka (Agrawal et al, 2007).

Ngetich and Wanjau (2017) explain the monetarists economists argued long time ago that central bank interest rate rules exacerbate microeconomic fluctuations, essentially by not allowing interest rate to respond promptly to shifts in supply and demand for loans. To support this critique, they pointed to the pro-cyclicality of the money stock. Yet, when there are real shocks and a real business cycle, modern macroeconomic models imply that some pro-cyclicality is desirable, to stabilize the price

level. A simple interest rate rule illustrate that the monetarist critique can be valid within this model, since the rule exacerbates the real activity to real shocks. Other interest rates rules instead limit the macro economy's response to real shocks. But, while these interest rates rules have diverse effects on real activity, there is an important common implication: By smoothening the nominal interest rate in the short run, the rules all lead to increases in the long run variability in inflation and nominal interest rates .

8. Methodology

Research methodology refers to the various sequential steps to be adopted by a researcher so as to obtain answer to the research question. In this chapter, the focus has been made on research design, nature and sources of data, sampling procedure, tools used for analysis of data.

8.1 Research design

The study analyzed the relationships between interest rate on deposit mobilization of Nepalese commercial banks. This study has employed descriptive and causal comparative research designs to deal with the fundamental issues associated with factors influencing interest rate with deposit mobilization in the context of commercial banks in Nepal.

8.2 Population and sample

Population of this study includes all the 27 commercial banks listed in NEPSE till September, 2015. In selecting the most reliable and representative samples, non probability judgmental sampling technique is use. For the study purpose, banks involving in banking services at least for five years have been considered for sample.since all of them did not provided scope for the study, 12 different Nepalese commercial banks were taken as a sample out of 27 Nepalese commercial banks for the period of 2014/15 to 2018/19.

8.3 Sources of data

For this study, secondary data are collected mainly from published sources like annual reports, prospectus, newspaper, journal, Internet and other sources. Secondary data published in the annual reports of concerned organizations are collected through personal visit in respective organization as well as from their web sites. All the annual report

published is verified and approved through AGM of respective banks and also approved by NRB. Since these annual reports were approved by concerned body the reports were considered authentic to be present in this research.

8.4 Data analysis tools and techniques

This section deals with statistical and econometric models used for the purpose of analysis of secondary data. Descriptive, co-relation and regression methods of analysis are used in the study. The descriptive statistics contains mean, standard deviation, minimum and maximum values of variables which used to explain the characteristics of sample firms. The correlation analysis is used to measure the direction and magnitude of relationship between dependent and independent variables. The regression analysis is used to find out the influence of independent variable over dependent variable solely and combined with other variables. It explains the different statistical tests of significance for validation of model of linear regression analysis. All models are tested for individual effects by running correlation and regression using statistical package for social science (SPSS 25).

9. Chapter Plan

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

Chapter I: Introduction

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

Chapter II: Literature Review

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

Chapter III: Research Methodology

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

Chapter IV: Results

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

Chapter V: Conclusion

This chapter presents the brief background of the study, objectives, literature review and methodologies. Chapter focuses on the major findings and compares them with theory and other empirical evidence to extend possible.

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