

## CHAPTER I INTRODUCTION

### **1.1 Background of the study**

The size of the local economy and prevailing legal restrictions as well as consumer's propensity to save connected with other financial variables has an important influence on the growth of deposits with banks. With competition intensified through the process of financial liberalization, banks are being compelled to compete for deposits in various forms (Haron and Azmi, 2006). In most cases, customers of conventional system behave in conformity with savings behavior theories. The process of liberalization has intensified competition between financial institutions forcing commercial banks to compete for deposits in various forms. The studies on saving determinants have attracted the maximum attention (Haron et al., 2006).

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). Banks are financial intermediaries that issue deposits and use the proceeds to purchase securities. Deposits are the heart of financial institutions.

If a bank is to survive, it must attract depositors, which means providing portfolios against which depositors are willing to hold claims. Moreover, competitive banks simply turn over the returns on their portfolios to their depositors, less a competitively determined management fee. Banks are concerned with the fees they earn rather than with the types of portfolios they provide, so in a competitive equilibrium they provide in aggregate portfolios to the point where each different type produces management fees at the same rate (Tobin, 1963).

Bank deposit plays an important role in economic development of country (King and Levine, 1993). The study evaluated prospective entrepreneurs, mobilize savings to finance the most promising productivity-enhancing activities, diversify the risks associated with these innovative activities. The study also revealed that the expected profits from engaging in innovation rather than the production of existing goods using existing method.

Bank deposit represent the most significant component of the money supply used in by the public and change in money growth are highly correlated to change in the price of good and service in the economy. Deposits are very important for banks as well as for the economy of a country. Banks need money from the people to give loans or financing to promote productivity and economic growth and at the same time to gain profit for themselves through interest or margin applied (Ostadi and Sarlak, 2014).

Deposit may be important for both developed and developing countries such that it helps depositors to earn on their funds which they have no immediate use for. It also creates a platform for banks to channel such funds to businesses and individuals who have urgent use of such funds (Cohen and Kaufman, 1965). Public savings are important in explaining changes in private savings, both in the short-run and long-run and that the terms of trade negatively influence private savings in Lesotho in the long-run (Kalebe, 2015).

Deposits are the most secured and liquid financial assets available, which can accelerate bank lending to various sectors. In this nexus, it is imperative to state that deposit mobilization behavior in any economy is closely tied with lending behaviors and as a consequence an analysis of the determinants of bank deposits is imperative (Kraft, 2000). Erna and Syamsulhakim (2004) concluded that there is a long run relationship between the volume of deposits and profit sharing rate and number of branch offices of Islamic commercial banks in Indonesia. Aside from religious considerations, in the long run, Indonesia depositors are indeed influenced by welfare maximization premise, and accessibility of the Islamic commercial banks.

Ozcan et al. (2003) found that with the exception of government savings, income level, financial depth and inflation all have positive impact on savings. Athukorala and Sen (2003) found that income growth, aging of the population, changes in social security contributions and the availability of credit are significant determinants of saving performance. The study also showed that interest rate has a significant positive impact and inflation seems to move in an opposite direction.

The commercial banks deposit is one of the several form of financial assets in which public can invest their wealth to maximize their utility. Regarding investment of wealth in addition to deposits, there are numerous other financial and physical assets which the public can put their wealth. These alternative financial and non-financial

assets are substituted for commercial bank deposits and will lead to an inverse relationship between the demand for deposits and the earnings or yields on these alternatives (Mohammed & Nighat, 1989).

Deposit rate is not the only factor that stimulates depositors to save, although it has received noticeable attention. Rather, high volatility regarding income, banking facilities and inflation influence savers to increase interest-bearing deposit (Bristy, 2014). Qin (2003) examined the saving behavior of Mainland Chinese and found that the expected saving potential is a chief determinant of bank deposits.

Deposit is the sum of money collected by the financial institution deposit which is an important factor for the bank to operate its banking activities and manage bank profitability. Deposit serves as the main source of funds for bank intermediation activities which can simply classified as fixed deposit, saving deposit and current deposit. The profitability of banks is depends on how banks are able to obtain low cost funds for their depositors for creation of their loan assets. Commercial banks depend on depositor's money as a source of funds; it means that there are some relationships between the ability of the banks to mobilize deposits and the amount of credit granted to the customers (Obamuyi, 2004).

Kanj and Khoury (2013) revealed that non-residents deposits are shaped differently between domestic and foreign currency. For instance, bank assets, interest rates and some adverse political situations affect non-resident deposits in all its measures. Similarly, total non-resident deposits and foreign non-residents deposits are roughly affected by the same factors, local resident deposits seem to be affected by other factors.

Bank deposit is an amount of money in cash or checks form or sent via a wire transfer that is placed into a bank account. The target bank account for the bank deposit can be any kind of account that accepts deposits. Deposits play a pivotal role in bank's funding, as a predominant portion of commercial banks assets are usually financed through customer deposits therefore implies that a bank that is able to generate more deposits cheaply will be able to supply more loans competitively and hence make more profits if all other factors are held constant (Okun, 2012).

Doshi (1994) concluded that savings performance is a statistically significant factor for less developed countries. Moreover, age structure exerts a depressing effect on savings. Income has small effect in high income countries whereas it plays strong and vital role in less developed countries. Hence, the study suggested that policymakers must take into account the regional diversity before formulating policy. Economic activity affects the supply and demand of loans and deposits and taxes and other variables can affect interest rates as well as the volume of loans and deposits. Exchange rate influences deposits when confidence in domestic currency is low (Mirzaei and Mirzaei, 2011).

The other most important consideration regarding demand for particular deposit is the expected rate of interest on deposits. This implies that demand for a particular deposit is positively related to expected rate of interest on deposits. Theoretically, it is argued that for depositors, the expected rate of interest on deposits is more meaningful rather than current interest rate (Sandhu&Goswami, 1986). The higher the rate of interest, the more money will be saved, since at higher interest rates people will be more willing to forgo present consumption. With increase in interest rate, people are encouraged to save more income and consume less in order to earn more return on bank deposits in the long run.

Mangkuto (2004) analyzed the effects of conventional deposit interest rate and deposit yield to the deposit growth and the study found that the correlation between the deposit yield and the conventional interest rate with the deposit were positive and negative respectively. The study also revealed that depositors' decision to put their money in Islamic banks is determined by the yield of the deposit. Modern banking is something different from lending and borrowing. They accept risk in order to earn profits. In doing so, they recognize that there are different types of risk such as credit risk, operational risk, interest rate risk, liquidity risk, price risk, foreign exchange risk etc. There exists a positive relationship between deposit portfolio and profitability variables but the magnitude of these relationships varied from one firm to another perhaps due to variations in their size, investment policies etc. (Koranteng, 2012).

In Nepalese context, Pradhan and Paneru (2016) concluded that lagged log fixed deposit, numbers of branches, trend and lagged log saving deposit are considered as important variables for deposit in Nepalese banking sector. This implies that these

explanatory variables have positive impact on the bank deposit of commercial bank and change in it will yield the highest change in banks deposit.

Dhungana (2011) found that higher the level of GDP, higher the deposit of the financial institutions, and economic growth of the nation. Similarly, high level of the deposit of commercial banks contributes for the enhancement of nominal GDP and economic growth of the nation. Shrestha (2008) analyzed the private savings behavior in Nepal: long-term determinants and short-run dynamics and the study found that real interest rate have positive influence on the private savings in Nepal and also significant.

According to Gaire (2010), average real interest rate for that period was as low as 1.32% and that there is a long-run relationship between real interest rate and saving behavior in Nepal. Likewise, the real interest rate affects the growth of bank deposit positively but negligibly. Therefore, trying to influence the bank deposit by manipulating interest rates is not likely to be a practical policy option in Nepal.

Dahal (2014) examined the impact of remittances on economic growth in Nepal: An analysis of a significant basis of development. The study found that remittance is positively correlated to bank deposit, saving, investment and credit. This study also revealed that remittance has positive association with financial development and human capital accumulation, but a negative association with manufacturing growth (productivity) and international trade.

The above discussion shows that the studies dealing with the relationship between bank deposits and its determinants are of greater significance. Though there are various findings as discussed above in the context of different countries, no such findings using more recent data exist in the context of Nepal. Hence, this study attempts to analyze the determinants of banks deposit of selected Nepalese commercial banks.

## 1.2 Statement of the problem

Bank deposits come from the depositors who are investing their money in commercial banks. Deposit is the most liquid money that is found in the treasury of commercial banks and which is ready to be borrowed by a body in need of the fund. A deposit of the commercial bank may be affected by different factors. Since, a deposit is most useful asset of the bank that is important to find out the factors affecting it and determining the relationship between them (Adem, 2015).

Commercial banks earn a return on their deposits and capital by investing deposit funds and capital funds in assets (Richard, 1971). In commercial banks, to attain profit deposits are one of the most important sources of capital. Moreover, capital structure in commercial banks is made up of shareholders' funds, borrowing and deposits. Therefore, deposits are one of the sources of capital for commercial banks. According to Bhatt (1970), key purposes to use deposit in bank are safety of their money, easy access and possible real return.

Financial resources of banking system are naturally provided from people's deposit. Thus the amount of deposit a commercial bank should have at hand enough to make the bank involve in the market and to satisfy the financial needs of its customers. Given this general facts, the bank is expected deposit. Managing deposits is not possible without knowing and controlling the factors affecting it (Mohammad and Mahdi, 2010). Ozcan et al. (2003) analyzed the determinants of private saving behavior in Turkey and the study focused the impact of policy and non-policy variable on private savings. The study revealed that government savings cannot compete with private savings but income level and inflation have positive impact on savings.

It is often argued that branching stabilizes banking system by facilitating diversification of bank portfolios. Branch banking leads to more stable banking systems by enabling banks to better diversify their assets and widen their deposit base (Carlson and Mitchener, 2006). Masson et al. (1998) analyzed the international evidence on the determinants of private saving and the study found that demographic and growth rate are important determinants of savings but interest rate and terms of trade have a positive but less robust effect on deposit. Moreover, at low income level, with the increase in per capita gross domestic product, savings level increases but it decreases at high income level. Eriemo (2014) found that bank investment, bank

branches, interest rate and the general price level are important determinants of bank deposit.

Hilman (2016) investigated the factors affecting mudharaba deposits of Sharia banking in Indonesia. The result of this study showed that profit-sharing rate of saving, interest rate of saving, growth rate of Jakarta Islamic Index and GDP have significant influences to the amount of mudharaba saving in sharia banks. Profit-sharing rate of saving, growth rate of Jakarta Islamic Index and GDP have positive influences to the amount of saving. Meanwhile, interest rate of saving in conventional bank has a negative influence to the amount of a saving.

The composition of bank's deposit is of considerable importance to its growth and earnings. The greater the proportion of demand deposits relative to time and savings deposits at an individual bank, the larger that bank's liquidity needs tend to be and the more concern it is about cash withdrawals and unexpected demand for loans. The banking industry and its monetary reforms all over the world recognize the imperativeness of bank deposits in its resource mobilization drive. A precursor to reaching any economy's dream in this regard is the understanding of how banks generate their funds, which essentially has its roots in bank deposit creation. To an investor, deposits are the most secured and liquid financial assets available, which can accelerate bank lending to various sectors (Ochung, 1999).

Money supply (M3) is one of the tools used by the government in the conduct of its monetary policy. Hence, any changes in money supply can have a major impact on economic conditions. An increase in money supply makes loanable funds cheaper, thus reducing cost of borrowing for corporate and individual customers. In this case, it is expected that people will increase consumption and reduce savings. Therefore, money supply will have an inverse relationship with deposits (Haron and Azmi, 2006).

Loayza and Shankar (2000) found that, changes in corporate saving are offset by changes in household saving, indicating that the unit of analysis should be aggregate private savings. The study concluded that the behavior of the private saving rate is positively correlated to the real interest rate, per capital income, the dependency ratio, financial depth, the government saving rate, and the share of agriculture in gross domestic product.

Erna and Syamsulhakim (2004) analyzed the factors affecting Mudaraba deposit and the study found that rate of interest does not have influence on the volume of the deposits. The lack of widespread branching bank networks hindered the development of large-scale industrial firms (Daniel, 2005). It is stated that unit banks become increasingly incapable of receiving deposits from a widespread geographic area. The single office bank is also able to monitor geographically diffuse debtors as easily as could be done with multiple offices.

According to Bhatt (1970), these are some of the new deposit schemes which, if introduced, could raise the rate of saving as well as the rate of growth of bank deposits. To the extent to which the deposit growth rate is raised, the community would have more effective control over the allocation of financial resources for plan purposes. The study examined the factor affecting savings behaviour in LDCs. There is significant inverse relationship between population growth rate and saving rate in LDCs. The study concluded that rapidly growing population was characterized by a high ratio of dependents to the working age population, who contributed to consumption but not to the production, imposed a severe constraint on the society's potential savings (Leff, 1969).

According to Rasiah (2010), inflation will make borrowing more costly than before and thereby the demand for funds will be reduced. Similarly, with a reduction in their credit creating capacity, the banks will be more cautious in their lending policies. Since the banks demand for fund decreases obviously the deposits will decrease.

In the context of Nepal, there are a few studies in relation to determinants of banks deposit. For example, Bhatta (2004) found that there is positive and significance relationship between deposit rate and deposit amount.

The financial variables are accepted to be especially relevant determinants of saving for developing countries like Nepal which has undergone and still is in liberalization process. Real interest rate is the most important financial variable to determine the saving behavior (Shrestha, 2010).

Bhandari (2011) concluded that there is positive relationship between deposit and economic growth in Nepal. There is significant relationship between total interest received and the total interest paid. This study also showed the interest rate structure



and its influence on deposit and lending of several banks of Nepal and revealed that interest rate have negative relation with bank lending and positive relation with bank deposit.

At the theoretical level, the influence of real interest rates on savings depends on the relative strengths of the offsetting substitution and income effect. A rise in the rate of return may increase savings by making future consumption cheaper relative to current consumption (substitution effect). At the same time, higher real interest rates may reduce the saving necessary to purchase a given amount of future consumption (income effect). Given the theoretical ambiguities, whether or not saving behaviour is interest elastic is a matter for country specific empirical analysis (Bhattraai and Kafle, 2011).

According to Khaniya (2014), real interest rate, population growth rate, GDP growth rate and inflation have significant impact on bank deposit. Bank specific variables such as lagged deposit and bank size are positively related with deposit whereas lagged bank size is negatively related to bank deposit. Among the macroeconomic variables lagged gross domestic product growth rate, inflation rate and lagged inflation rate have significant impact on deposit of Nepalese commercial banks.

Though there are above mentioned empirical evidences in the context of Nepal and in other countries, no such evidences using more recent data exist in the context of Nepal. This study therefore deals with the following issues in the context of Nepalese banks:

1. What is the structure and pattern of saving deposits, current deposits and fixed deposits, saving deposits rate, fixed deposit rate, number of branches and return on assets of nepalese commercial banks?
2. What is the position of saving deposits, current deposits and their rates on assets of Nepalese Commercial Banks?
3. What is the relationship between number of branches, ROA, saving deposit rate and interest rate with deposits of Nepalese commercial banks?
4. To what extent money supply, ROA, consumer price index and population growth rate affect the bank deposits of Nepalese commercial banks?

### **1.3 Purpose of the study**

The main objectives of the study is to analyze the determinants of bank deposit in context of Nepalese commercial banks. The specific objectives are as follows:

1. To analyze the pattern and structure of saving deposits, current deposits, fixed deposits, saving deposit rate, fixed deposit rate, number of branches and return on assets of Nepalese commercial banks.
2. To assess the position of saving deposits ,current deposits and their rates on assets of Nepalese Commercial Banks.
3. To investigate the relationship of number of branches, ROA, saving deposit rate and interest rate with the deposits of Nepalese commercial banks.
4. To examine the effect of gross domestic product, money supply, consumer price index and population growth rate on bank deposits of Nepalese commercial banks.

### **1.4 Significance of study**

The study conducted on the title of determinants of bank deposits, examines the impact of firm specific and macroeconomic factors on deposits of Nepalese commercial banks. This study will help commercial banks to manage their deposit by letting them know what affects it and which variable is the most important that should be given due emphasis. Therefore, this study is significant to the bankers, government officials, academicians, student, customers and any other stakeholders who are related to banking behavior of the commercial banks.

In addition, the studies that are carried on the determinants of bank deposits are rare, study will be an important reference material on the field of finance. The study will analyze the impact of different firm specific and macroeconomic factors on deposit of the commercial banks by considering the above all issues. So, the study is significant to investors, student, academicians, policy makers, government officials, bankers and managers in order to make rational decisions, effective policies and to make further studies related to deposit.

### **1.5 Limitation of the study**

Despite of the continuous efforts made for arriving at meaningful conclusions from the study, the following major limitations have been outlined.

- i. The study has excluded the firms like non- financial companies, and even in the financial sector this study has not covered development banks, finance companies and insurance companies. The conclusions drawn from the study needs precaution for generalizing the findings.
- ii. This study is based on the assumption of linear relationship between dependent and independent variables. Thus, the study has not considered the non-linearity biases those are normally characterized in markets of emerging countries.
- iii. Out of 28 commercial banks only 20 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.
- iv. 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.
- v. This study assumes that every bank operates in the same market. Therefore, the analysis is not based on bank's market segmentation or group of banks (whether it is government, foreign or private banks).
- vi. This study has taken SAVDEP, FXDEP and CURDEP only as the measure of deposit. However there are several other variable such as call deposit, share deposit, life saving deposit, business deposit etc. which measure the overall deposit performance of Nepalese commercial banks.

## **1.6 Chapter plan**

Considering the objectives, the study has been organized into following five chapters they are Introduction, Literature Review, Research Methodology, Results and Conclusions.

### **Chapter 1: Introduction**

This chapter includes background of study, statement of problem, purpose of study, significance of study and limitation of study has also been laid down in this first chapter.

**Chapter 2: Literature Review**

This chapter includes the relevant previous finding and studies to find the existing gap; review of textbook, dissertation thesis has been included in this chapter.

**Chapter 3: Research Methodology**

This chapter contains research design, population and sample size, data collection procedure, data processing procedure and tools and techniques for analysis.

**Chapter 4: Result**

This chapter consists of systematic presentation and analysis of financial statement employing financial and statistical tools. It also includes major finding of the study.

**Chapter 5: Conclusion**

This chapter includes the summary, conclusion and recommendations of the study.

Bibliography and appendices provides the references information, tabulation and diagrams to support the study, Bibliography includes information related to annual report, previous thesis reports, official website, book and journals.

## **CHAPTER II LITERATURE REVIEW**

### **2.1 Conceptual review**

This section discusses some empirical and theoretical literature on the impact of capital on the financial performance and presents the conceptual framework of the study. It is divided into three sections. First section consists of theoretical framework which gives an in-depth review of related studies in the context of both developed and emerging countries. This section also provides various literatures conducted among variables along with their relationships with each other it also deals with a brief review of empirical works in the context of Nepal. Second section presents a conceptual framework of the study. The conceptual framework clarifies how the study is organized and what various variables have been selected. And, finally the third section presents concluding remarks which makes remarks on the missing elements in the existing literature.

### **2.2 Review of literature**

This section includes review of related literature. The literatures found in terms of popular write-ups, reports, studies/articles were reviewed. Studies which in fact demonstrate the relationship between selected variables and firm's performance has been selected for review. In this section, a brief review of existing studies, pertinent to present study has been presented. The review of literature has been organized as under:

2.2.1 Review of major literature

2.2.2 Review of recent literature

2.2.3 Review of Nepalese literature

#### **2.2.1 Review of major literature**

The major literature that has been reviewed in this study is presented in Table 2.1.

## 2.1: Summary of major literature

Study	Major findings
Koskela and Viren (1985)	The study reported that savings increase as the inflation rate increase.
Nishat and Bilgrami (1989)	The study found that public holds the demand deposits for transaction purposes and there is an opportunity for investment in demand deposit.
Meyer et al. (1990)	The study revealed that deposit variability is greatest for small, rural branches. It declines with increases in branch size, the share of long-term fixed deposits, and number of types of deposits in a branch.
Maende (1992)	The study found that the number of branch network, national income levels and stability are the main determinants of deposits in the banking industry.
CelasunandTansel (1993)	The study found the positive effect on private saving. Evidence points to the workings of a flexible accelerator mechanism for private capital formation under the strong influence of real import availability and unexpected inflation.
Escobar and Cardenas (1998)	The study found that higher government expenditure led to the decreasing national savings and saving led to the investment was perfectly correlated and savings caused growth.
Chu and Lim (1998)	The study revealed that banks with large branch networks are able to attract more deposits, which is a cheaper source of funds.
Khaled et al. (1999)	The study found that total saving also depends on government saving, and a surprisingly strong negative relation is found between the ratio of tax revenue to GDP and the domestic savings ratio.
Loayza and Shankar (2000)	The study found that real interest rate, per capita income and the share of agriculture in GDP had a positive relationship with savings, whereas inverse relationship were found for variables such as financial development, inflation and dependency ratio.
Agrawal (2001)	The study found that the high savings rates in Asia are found to be due to the high rate of growth of income per capita, declining shares of dependent population, and some special institutional features, such as the high central provident fund rates in Singapore. Interest rates are found to have little impact on savings
Obadan and Odusola (2001)	The study showed that a unidirectional relationship exists between real income and real investment, with saving granger causing investment, investment to income; and finally, a unidirectional relationship exists between savings and growth,

	with saving rate granger causing per capita income.
Athukorala and Tsai (2003)	The study observed that interest rate had a significant positive impact, inflation seems to move in an opposite direction on deposits.
Dadzie et al. (2003)	The study found that level of income, customer satisfaction, service quality and demographic factors such as number of dependents and location were positively correlated with the level of savings. Nonetheless, age and formal education variables were found to be insignificant in explaining the level of personal savings.
Ozcan et al. (2003)	The study found that the precautionary motive for saving is supported by the findings that inflation captures the degree of macro-economic volatility and has a positive impact on private saving in Turkey.
Hondroyiannis (2004)	The study revealed the existence of a stable long-run savings function in Greece both in the long- and short-run periods and the policy implications of such a relationship are presented.
Haron et al. (2006)	The results found that determinants such as rates of profit of Islamic bank, rates of interest on deposits, base lending rate, Kuala Lumpur composite index, consumer price index, money supply and gross domestic product have significant impact on deposits.
Kasri and Kassim (2009)	The study found that higher Islamic deposit is significantly correlated with higher rate of return and lower interest rate.
Zainal et al. (2009)	The study showed that the unemployment rate, GDP, per capita income and the consumer price index has a significant influence on the total amount of investment and savings mudharaba.
Yousaf et al. (2009)	The study revealed that Bahrain's Islamic bank deposits are more responsive to macroeconomic shocks and interest rate fluctuations.

Koskela and Viren (1985) examined the anticipated versus 'surprise' inflation in household consumption behavior and used a large data sample from 23 countries and during the period of 1960 to 1979. Evidence is overwhelmed against the hypothesis that only the 'surprise' part of inflation matters for household consumption and saving behavior, but is a bit mixed on the question of whether the anticipated and 'surprise' parts of inflation affect with equal force which would 'justify' the observed inflation as the appropriate inflation variable in household consumption and saving functions. The study concluded that savings increase as the inflation rate increase.

Gupta (1987) examined the effects of real interest rates on personal savings of rural and urban households in a survey of a group of Asian and Latin American countries, using per capita aggregate savings as the dependent variables. The study concluded that though per capita income levels were low, incentives such as positive real interest rates could lead to higher savings especially from the urban sector. The study further observed that real interest rates have an effect on the structure of savings. In his findings, financial savings as a percentage of total savings increases with increases in deposit rates.

Nishat and Bilgrami (1989) analyzed the determinants of growth of bank deposits in Pakistan during the period 1960 to 1986. The study found that public holds the demand deposits for transaction purposes and there is an opportunity for investment in demand deposit. In addition, the demands for time deposits are influenced by non-agricultural income, bank credit, interest on time deposits and investment in real estate. Similarly, the study also revealed that an increase in the yield on time deposits will increase more time deposits with commercial banks. Similarly, the study also revealed that after nationalization period the growth in demand deposit is higher than post nationalization. For time deposit it indicated that through the time deposit have gone up during post nationalization period but the growths of time deposits have declined.

Meyer et al. (1990) investigated the deposit variability in the branch banking system of Bangladesh. It used bank branch reports submitted to the Bangladesh central bank for eight reporting quarters for the years 1985 and 1986. As expected, deposit variability is greatest for small, rural branches. It declines with increases in branch size, the share of long-term fixed deposits, and number of types of deposits in a branch. The study also showed that a better understanding of deposit variability is needed if branches are to successfully cope with the variability inherent in these deposits.

Maende (1992) examined the determinants of demand for commercial bank deposits in Kenya obtaining time series data from 1968 to 1991 and used the Ordinary Least Squares, Two-Stage Least and the Granger test of causality. The study found that the number of branch network and national income levels and stability are the main determinants of deposits in the banking industry. The study also revealed that there is



a uni-directional relationship between volumes of bank deposits and branch network expansion.

Celasun and Tansel (1993) investigated the econometric estimates for Turkish saving – investment behavior during the period from 1972 to 1988. The estimation results captured the significant impact of functional income distribution on private as well as on total domestic saving. Financial liberalization has produced a positive effect on private saving. This study also provides estimated models for private saving surplus and current account deficit. Real external deficit is found to be sensitive to shifts in domestic factor shares.

Escobar and Cardenas (1998) carried out investigation on the determinant of savings in Colombia during the period of 1982 to 1995. National saving partially responds to temporary changes in output, according to the permanent income hypothesis. Higher government expenditures (in relation to their permanent level) are associated with lower national saving. In particular, the result also indicated that increases in urbanization and age dependency have negative effect on private savings in Colombia. Finally, the study found that much of the recent reduction in private savings can be accounted for by the increase in current government consumption, as well as by the effects of higher taxation.

A study by Chu and Lim (1998) evaluated the relative cost and profit efficiencies of panel of six Singapore-listed banks during the period of 1992 to 1996. This study opens up a new window or understanding share price fluctuations and is to be expected as shareholders desire dividends which are paid out of profits and net income. The study also revealed that banks with large branch networks are able to attract more deposits, which is a cheaper source of funds.

Khaled et al. (1999) analyzed the major determinants of differences in the domestic savings ratio between countries using panel data for 62 countries during the period of 1967 to 1995. The study found that capacity to save depends primarily on the level of per capita income (but non-linearly) and the growth of income (the life cycle hypothesis), and the empirics strongly support these hypotheses. The willingness to save is assumed to depend on financial variables such as the rate of interest, the level of financial deepening and inflation. The study also revealed that total saving is

depends on government saving, and a surprisingly strong negative relation is found between the ratio of tax revenue to GDP and the domestic savings ratio.

Loayza and Shankar (2000) investigated the evolution of the private saving rate in India during the period from 1960 to 1995. The empirical analysis is done by estimating error-correction models on aggregate annual data, although most of the discussion center on long-run effects. The evidence showed that, changes in corporate saving are offset by changes in household saving, indicating that the unit of analysis should be aggregate private savings. The study concluded that the behavior of the private saving rate is positively correlated to the real interest rate, per capital income, the dependency ratio, financial depth, the government saving rate, and the share of agriculture in gross domestic product.

Agrawal (2001) examined the relation between savings and growth: cointegration and causality evidence from Asia. The direction of causality between savings and growth remains unclear even though it is of critical importance for development policy. In this study, Granger causality analysis is undertaken for seven Asian countries using the VECM (Engle and Granger) and VAR procedures. The result revealed that the direction of causality runs primarily from growth (or income) to savings, although in some countries, there is also evidence of a feedback effect from savings to income and growth. The study also revealed that interest rates are found to have little impact on savings.

Obadan and Odusola (2001) carried out a study on savings, investment and economic growth connection in Nigeria using granger causality test based on OLS techniques, and data from 1970 to 1996. The result showed that a unidirectional relationship exists between real income and real investment, with saving granger causing investment, investment to income. The result also showed that a unidirectional relationship exists between savings and growth, with saving rate granger causing per capita income

A study by Athukorala and Tsai (2003) examined the determinants of household saving in the process of economic development, in the light of the Taiwanese experience during the period of 1952 to 1999. It is found that the household saving rate rises with both the level and the rate of growth of household disposable income.

Increased availability of social security provisions and enhanced credit availability also seem to reduce saving.

Dadzie et al. (2003) examined the effects of normative social beliefs, customer satisfaction with service quality and demographic variables on the long-term savings behavior of rural households of 15 years after the 1981 large-scale promotion of the rural bank program in Ghana. The results showed that considerations of these influences beyond income alone provide stronger predictive power, over and above that of income. In addition, the study revealed that the negative effects of social beliefs on savings behavior were ameliorated significantly as a result of the promotional program. Similarly, customer satisfaction with the level of service quality was also positively correlated with the level of savings.

Ozcan et al. (2003) investigated the effects of private saving rate of a number of policy and non-policy variables and during the period of 1968 to 1994. The evidence indicated that government saving does not tend to crowd out private. The study revealed that the precautionary motive for saving is supported by the findings that inflation captures the degree of macro-economic volatility and has a positive impact on private saving in Turkey.

Hondroyannis (2004) analyzed the long-run and short-run determinants of aggregate private savings in Greece using the data over the period from 1961 to 2000. The long-run savings function is estimated based on an extended life-cycle hypothesis taking into account the economic and demographic developments during this period. The study showed that a long-run saving function is sensitive to fertility changes, old dependency ratio, real interest rate, liquidity and public finances is found to exist.

The number of deposit accounts is more important because it ensures that the probability of account holders withdrawing cash at a time decreases as the number of deposit account increase, thereby creating advantage for banks in terms of increasing the size of the loan-able fund (Varman, 2005). The study stated that the higher number of deposit accounts the greater is the advantage to banks. The study concluded that the number of deposit accounts depends on the number of deposit account holders.

Haron et al. (2006) investigated the structural determinants of deposits level of commercial banks in Malaysia using the data over the period of 1990 to 2003. The results revealed that determinants such as rates of profit of Islamic banks, rates of interest on deposits, base lending rate, Kuala Lumpur composite index, consumer price index, money supply and gross domestic product have significant impact on deposits. The study also found that customers of conventional system behave in conformity with the savings behavior theories. The process of financial liberalization has intensified competition between financial institutions, thus forcing commercial banks to compete for deposits in various forms.

Kasri and Kassim (2009) investigated the factors affecting saving in the Islamic banks in Indonesia over the period of 1990 to 2005. The study also analyzed the importance of real rate of return on Islamic deposit, interest rate on conventional deposit, real income and number of Islamic bank branches in determining the level of savings in the Islamic banks. The study highlighted the influential role of conventional interest rate in determining the level of saving in the Islamic banks. The study found that higher Islamic deposit is significantly correlated to higher rate of return and lower interest rate.

Zainal et al. (2009) carried out the study on the influence of economic factors on performance of investment in Malaysia and used the data period from 1996 to 2007. The purpose of the study was to determine the relationship between investment and savings in Maybank with economic factors like GDP, unemployment rate, per capita income and the consumer price index. The results showed that the unemployment rate, GDP, per capita income and the consumer price index has a significant influence on the total amount of investment and savings deposit.

Yousaf et al. (2009) examined the relationship between Islamic banks deposit and monetary policy variables in Bahrain and Malaysia. The empirical evidence proposed that Islamic banks deposit and monetary policy variables are co-integrated. Further, the study revealed that in Bahrain, monetary policy variables affect Islamic banks deposit negatively. While comparing the effect of monetary policy variables on Malaysian and Bahrain Islamic banks, it is found that Bahrain's Islamic banks deposit are more responsive to macroeconomic shocks and interest rate fluctuations. In the

short-run there isn't any relationship between Islamic banks deposit and monetary policy variables for both Malaysia and Bahrain.

### 2.2.2 Review of recent literature

The recent studies reviewed in this study are presented in Table 2.2.

**Table 2.2: Review of recent literature**

Study	Major findings
Andriyanti and Wasilah (2010)	The result showed that the interest rate one month time deposits in conventional banks has a significant negative effect on savings deposits in Islamic banks, while financing to deposit ratio did not have a significant effect.
Sukmana and Kassim (2010)	The study found that any shock in interest rate negatively impact on the Islamic bank's deposit.
Adelakun (2011)	The study showed that the saving rate rises with both the growth rate of disposable income and the real interest rate on bank deposits.
Platos (2011)	The study found positive relationship between bank deposits and bank credit to the domestic private sector. The study also revealed that bank deposit has positive relation with economic growth of the country.
Ngula (2012)	The study showed that exchange rate, inflation rate and money supply (M2) significantly affect the mobilization of financial savings (deposit) in Ghana.
Eriemo (2014)	The study observed that both the banks and the monetary authorities should take these factors into serious consideration when attempting to improve the deposits of banks and this will go a long way in increasing aggregate investment.
Mashamba et al. (2014)	The study 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.
Ojeaga and Odejimi (2014)	The study found that interest rates were probably increasing bank deposits while income was also found to affect bank deposits in general.
Valahzaghari and Kashfi (2014)	The study found a positive and meaningful relationship between growth domestic product, financial deepening, inflation rate and the number of branches on one side and bank deposit on the other side.

Hibret (2015)	The results revealed that interest rate has positive but insignificant impact on deposit growth both in the long run and short run. The result also indicated that there is bi-directional causality between branch expansion and deposit and economic growth in Ethiopia.
Larbi-Siaw and Lawer (2015)	The study indicated a significantly negative short-term impact of both inflation and growth of money supply of bank deposit in Ghana.
Kalebe (2015)	The study indicated the public savings are important in explaining changes in private savings, both in the short-run and long-run and that the terms of trade negatively influence private savings in Lesotho in the long-run.
Boadi, Li, and Lartey (2015)	The study revealed that the Bank of Ghana remains resilience on interest rate liberalization so that surplus funds can be made available for investors and also to reduce the level of inflation in Ghana.
Shemsu (2015)	The study showed that all the explanatory variables are positively correlated with the explained variable. Among these variables, branch opening is an important strategy for deposit mobilization, it is highly significant than others.
Awole (2016)	The study found that bank branches and percapita-income growth influence is positively and statistically significant on bank deposit growth; whereas, lagged bank deposit and loan-to-deposit ratio influence is negatively and statistically significant on bank deposit growth.
Hilman (2016)	The study showed that profit-sharing rate of saving, interest rate of saving, growth rate of Jakarta Islamic Index and GDP have significant influences to the amount of saving in sharia banks. Meanwhile, interest rate of saving in conventional bank has a negative influence to the amount of saving.
Meutia (2016)	The study found that there is negative influence interest rate on Mudharabah deposit but it is not significant. The finding indicated that profit motive among the Islamic bank depositors as reflected by the significant impact of the Islamic banks' rate of return on Islamic banks' total deposits.
Ojiegbe et al. (2016)	The study revealed that there is a relationship between saving, investment and economic growth in Nigeria.

Andriyanti and Wasilah (2010) carried out the study on factors affecting total deposits third party Bank Muamalat Indonesia over the period from 2003 to 2009. The results of this study indicated that the interest rate futures deposit one month at a

conventional bank, the deposit rate for one month futures, inflation, and the size of Islamic banks affect the growth rate of savings deposits in Islamic banks. The study also revealed that the interest rate one month time deposits in conventional banks has a significant negative effect on savings deposits in Islamic banks, while financing to deposit ratio does not have a significant effect.

Sukmana and Kassim (2010) analyzed the importance of the Islamic banks in the monetary transmission process in the Malaysian economy using the period from January 1994 to May 2007. In particular, the study analyzed the relevance of Islamic banks' financing and deposit in channeling the monetary policy effects to the real economy. The results showed that both Islamic banks' financing and deposit play important roles in the monetary transmission process in the Malaysian economy. Moreover, the major conclusion of the study is that any shocks in interest rate have negative impact on the Islamic bank's deposit.

Adelakun (2011) investigated the trend in Nigerian saving behaviour and reviews policy options to increase domestic saving. It also examined the determinants of private saving in Nigeria during the period from 1970 to 2007. The framework for analysis involves the estimation of a saving rate function derived from the Life Cycle. The results of the analysis showed that the saving rate rises with both the growth rate of disposable income and the real interest rate on bank deposits. The study also revealed that the degree of financial depth has a negative but insignificant impact on saving behaviour in Nigeria.

Platos (2011) analyzed the major determinant of commercial bank deposits in Greece during the period of 2001 to 2010. The study used co-integration techniques and a vector error correction model for studying the determinants of private-sector deposits to commercial banks. The study found a positive relationship between bank deposits and bank credit to the domestic private sector. The study also revealed that bank deposit has positive relation with economic growth of the country.

Ngula (2012) examined the determinants of savings mobilization and its role in promoting economic growth in Ghana using the data period from 1980 to 2010. Time series characteristics of the data are investigated by applying unit root tests to examine the stationarity of each variable. The study showed that exchange rate,

inflation rate and money supply (M2) significantly affect the mobilization of financial savings (deposit) in Ghana.

Valahzaghard and Kashfi (2014) investigated on the effects of seven variables including growth domestic product, financial deepening, inflation rate, dependency burden, the number of bank's branches, inflation rates given/charged on bank deposit using the period from 2006 to 2011. The implementation of individual regression analysis has detected a positive and meaningful relationship between growth domestic product, financial deepening, inflation rate and the number of branches on one side and bank deposit on the other side. In addition, the study confirmed a negative and meaningful relationship between two variables of dependency burden as well as interest charged on bank's clients and bank deposit. However, the study also revealed that there is no significant relationship between interest rate paid to customers and bank deposit.

Eriemo (2014) investigated the macroeconomic determinants of bank deposit in Nigeria using data covering the period from 1980 to 2010. This study analyzed the effects of various macroeconomic indicators on the performance of banks within the context of deposit mobilization of banks and its determinants. The result showed that bank investment, bank branches, interest rate and the general price level are important determinant of bank deposit in Nigeria. The study also revealed that both the banks and the monetary authorities should take these factors into serious consideration when attempting to improve the deposits of banks and this will go a long way in increasing aggregate investment.

Mashamba et al. (2014) 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.



Ojeaga and Odejimi (2014) investigated the effect of interest rates on customer savings behavior in the Nigerian banking sector using the period of 1989 to 2012. The study has identified a host of factors that are likely to influence customer confidence in commercial banks such as average income, commercial lending, legal rights strength, central bank monetary policy and total annual commercial bank losses. The study found that interest rates were probably increasing bank deposits, while income was also found to affect bank deposits in general.

Hibret (2015) investigated the short and long run impacts of determinant factors on deposit growth of commercial bank of Ethiopia for the period from 1975 to 2014 using Vector Error Correction Model (VECM). The study also checked the causal relationships that exist between deposit growth and its determinant factors employing test of Granger causality. The results revealed that interest rate has positive but insignificant impact on deposit growth both in the long run and short run. Similarly, population and economic growth also has a positive relationship with deposit growth and it is significant in the long run but insignificant in the short run. The result also indicated that there is bi-directional causality between branch expansion and deposit and economic growth in Ethiopia.

Kalebe (2015) analyzed the determinant of private savings using annual time series data for the period from 1980 to 2010. The study estimated the saving rate function and Error-Correction modeling is used to avoid spurious results. The results indicated the public savings are important in explaining changes in private savings, both in the short-run and long-run and that the terms of trade negatively influence private savings in Lesotho in the long-run.

Larbi-Siaw and Lawer (2015) investigated the influence of selected macroeconomic and financial level variables on bank deposits in Ghana. It specifically examined the dynamic effect of deposit interest rate, inflation, monetary policy rate, growth of money supply and stock prices on the level of bank deposits. The dataset for the study used of quarterly data spanning the years of 2000 to 2013 gathered from the Bank of Ghana monetary time series database. The findings from the study indicated a significantly negative short-term impact of both inflation and growth of money supply of bank deposits in Ghana.

Boadi et al. (2015) investigated the effect of interest rate liberalization on bank deposits in a developing country Ghana. Ordinary Least Square method used to estimate the specified model which covered personally adjusted quarterly data drawn from Bank of Ghana and Ghana Statistical Service. The study revealed that the interest rate liberalization and gross domestic product jointly accounted for about 78% of the variation in the level of bank deposits in Ghana.

Shemsu (2015) analyzed the determinants of commercial bank deposits: A case of study of commercial banks of Ethiopia using the time series data from 1998 to 2014. The results from economic analysis showed that all the explanatory variables are positively correlated to the explained variable. Among these variables, branch opening is an important strategy for deposit mobilization, it is highly significant than others.

Awole (2016) investigated the determinants of commercial banks' deposit growth using the panel dataset for the study period from 2000 to 2014 gathered from the National Bank of Ethiopia time series database. The study found that bank branches and percapita-income growth is positive and statistically significant on bank deposit growth. Similarly, lagged bank deposit and loan-to-deposit ratio is negatively and statistically significant on bank deposit growth. In addition, money supply growth has insignificant negative influence on bank deposit growth. The study implies that stimulation of economic growth, banks presence and financial intermediation are most important factors that affect bank deposit growth.

Hilman (2016) investigated the factors affecting mudharaba deposits of Sharia banking in Indonesia. The method of this study is Ordinary Least Square (OLS) with quarterly panel data from 2006 to 2015. The result of this study showed that profit-sharing rate of mudharaba saving, interest rate of saving, growth rate of Jakarta Islamic Index and GDP have significant influences to the amount of mudharaba saving in sharia banks. Profit-sharing rate of mudharaba saving, growth rate of Jakarta Islamic Index and GDP have positive influences to the amount of mudharabah saving. Meanwhile, interest rate of saving in conventional bank has a negative influence to the amount of mudharaba saving.

Meutia (2016) examined the study on rate of return, interest rate and mudharaba deposit in Islamic banks in Indonesia using monthly the data from 2012 to 2015.

Using regression analysis the result showed that the rate of return in Islamic banks influence mudharaba deposit negatively. In addition, there is negative influence interest rate on mudharaba deposit but it is not significant. The finding concluded that profit motive among the Islamic banks depositor as reflected by the significant impact of the Islamic banks' rate of return on Islamic banks' total deposits.

Ojiegbe et al. (2016) investigated the effect of savings and investment on the economic growth of Nigeria. Data were obtained from the central bank of Nigerian statistical bulletin providing record of Nigerian saving, investment and Gross Domestic Product (GDP) over the period from 1980 to 2014. The result of the statistical analysis revealed that there is a inter-relationship between saving, investment and economics growth in Nigeria.

### 2.2.3 Review of Nepalese literature

The review of Nepalese literature is summarized and presented in Table 2.3.

**Table 2.3: Review Nepalese literature**

<b>Study</b>	<b>Major findings</b>
Gaire (2010)	The study found there is a long-run relationship between real interest rate and saving behavior in Nepal.
Shrestha (2010)	The study found that changes in income, government saivngs and interest rates are significant inexplaining short run dynamics of private savings (deposit).
Bhattraï and Kafle (2011)	The study found that influence of real interest on saivng depends on the relative strength of the offsetting substitution and income effect.
Dhungana (2011)	The study revealed that higher the deposit of the financial institutions, higher the level of GDP and economic growth of the nation. Similarly, higher the level of the deposit of commercial banks has been contributing for the enhancement of nominal GDP and economic growth of the nation.
Shrestha (2008)	The study observed that real interest rates have a positive influence on the private savings and can be taken as an important policy varibale in Nepal.
Dahal (2014)	The study found that remittance is positively correlated to bank deposit, saving, investment and credit. Also this study revealed that remittance has positive association with financial development and human capital accumulation, but a negatiive association with manufacturing growth (productivity) and international trade.

Khaniya (2014)	The result showed that there is significant impact of bank specific variabls and macroeconomic variabls on bank deposit.
Pradhan andPaneru (2016)	The study found that fixed deposit, saving deposit, number of branches and trend have the heights impact and influence on the bank deposit of commercial bank and change in it will yield the highest change in banks deposit
Timsina (2016)	The result showed that increase in domestic deposit leads to an increase in real private sector credit, however the coefficient is not significant.

Shrestha (2008) examined the long-run and cyclical behaviour of private savings in Nepal during the period from 1974 to 2005. The study used an error-correction framework. The estimation results revealed that real income, real government savings, real foreign savings, real interest rates and labour market constraints play important roles in determining private savings in the short and long-run. The study also found that the real interest rates have a positive influence on the private savings and can be taken as an important policy varibale in Nepal.

Gaire (2010) investigated the level of real interest rate in Nepalduring the period of 1975 to 2010 using annual data published by Nepla Rastra Bank (NRB). The findings of the study showed that average real interest rate for that period was as low as 1.32% and that there is a long-run relationship between real interest rate and saving behavior in Nepal. Likewise, the real interest rate affects the growth of bank deposit positivley but negligibly. Therefore, trying to influence the bank deposit by manipulating interest rates in not likely to be a practical policy option in Nepal.

Shrestha (2010) analyzed private savings behavior in Nepal: Long-term determinants and short-run dynamics using data period from 1974 to 2005. The study indicated that changes in income, government savings and interest rates are significant in explaining short run dynamics of private savings. These variables have also significant influence on private savings in the long run. The findings also provided the valuable inputs for policy makers towards greater mobilization of private savings.

At the theoretical level, the influence of real interest rates on savings depends on the relative strengths of the offsetting substitution and income effect. A rise in the rate of return may increase savings by making future consumption cheaper relatvte to current

consumption (substitution effect). At the same time, higher real interest rates may reduce the savings necessary to purchase a given amount of future consumption (income effect). Given the theoretical ambiguities, whether or not saving behaviour is interest elastic is a matter for country specific empirical analysis (Bhattraai and Kafle, 2011).

Dhungana (2011) carried out a study to test the impact of bank's deposit in economic growth of Nepal in Nepalese commercial banking industry for a period of 20 years from 1990 to 2010 and used the trend analysis to reach the conclusion. From the trend analysis in this article, the study found that higher the deposit of the financial institutions, higher the level of GDP and economic growth of the nation. Similarly, higher the level of the deposit of commercial banks has been contributing for the enhancement of nominal GDP and economic growth of the nation.

Dahal (2014) investigated the impact of remittances on economic growth in Nepal: an analysis of a significant basis of development. The study explored the impact of remittances on economic growth in Nepal by analyzing how remittances have affected the country's financial development, productivity, international trade, and human capital accumulation. The study used statistical tool and graph to explain the relationship between the variables. The study found that remittance is positively correlated to bank deposit, saving, investment and credit.

Khaniya (2014) investigated the determinants of bank deposit of Nepalese commercial banks. The study includes primary data including 32 commercial banks on the period of 2002 to 2012. The result showed that there is significant impact of bank specific variables and macroeconomic variables on bank deposit of Nepalese commercial banks but bank specific variables are more significant than macroeconomic variables. Similarly, bank specific variables such as: lagged deposit, bank size and lagged banks size have significant impact on dependent variables. Among the macroeconomic variables, the impact of lagged gross domestic product growth rate, inflation rate and lagged inflation rate on deposit of Nepalese commercial banks are significant and all have negative impact.

Pradhan and Paneru (2016) investigated the macroeconomic determinant of bank deposit of Nepalese commercial banks. The study considered both bank specific and macro-economic factors. It is based on pooled cross-sectional analysis of secondary

data of 18 commercial banks listed in NEPSE with 108 observations for the period of 2008 to 2013. This study concluded that lagged log fixed deposit, numbers of branches, trend and lagged log saving deposit are considered as important variables for deposit in Nepalese banking sector. This implies that these explanatory variables have the heights impact and influence on the bank deposit of commercial banks and change in it will yield the highest change in banks deposit.

Timsina (2016) investigated the determinants of bank lending in Nepal. The main objective of the study is to test and confirm the effectiveness of the determinants of commercial banks lending behavior in Nepal by using time series data for the period of 1975 to 2014. From the regression analysis, it is found that Gross Domestic Product and liquidity ratio of banks have the greatest impacts on their lending behavior. Granger Causality Test shows the evidence of unidirectional casual relationship from GDP to private sector credit. The result showed that increase in domestic deposit leads to an increase in real private sector credit.

### **2.3 Conceptual framework**

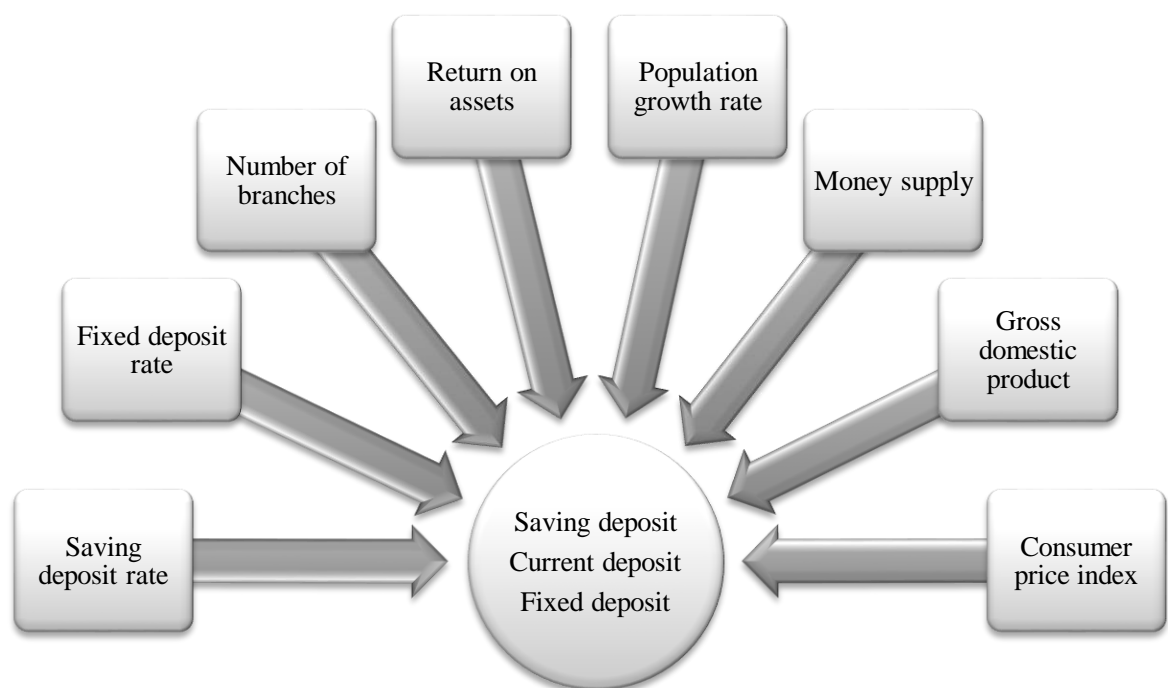
A conceptual framework is an analytical tool with several variations and contexts. Conceptual framework of the study explains the systematic explanation of the relationship among the dependent and independent variables for the purpose of explaining the impact of capital on financial performance of Nepalese commercial banks. It helps to determine and define the focus and goal of the research problem. Based on the objective of the study and based on the literature review following conceptual framework is framed to summarize the main focus and scope in terms of variables included.

This section provides the conceptual framework of study and describes about variables that have been used in study and what study has assumed the relationship between the variables. In this study, dependent variable is deposits of the commercial banks of Nepal. The deposit is measured by using three indicators named as, (i) current deposit (ii) saving deposit and (iii) fixed deposit. The independent variable are: (i) saving deposit rate, (ii) fixed deposit rate, (iii) number of branches, (iv) return on assets (v) gross domestic product, (vi) money supply, (vii) population growth rate and (viii) consumer price index has been used to show how much influence of these variables on deposits of banks. Thus, the following conceptual model is framed to

summarize the main focus and scope of this study in terms of variables included. The conceptual frameworks that describe the dependent and independent variables used in the study are shown in the Figure 2.1.

**Figure 2.1: Schematic diagram on determinants of bank deposit**

This figure shows the theoretical framework of the study. Saving Deposit (SAVDEP), Fixed Deposit (FXDEP) and Current Deposit (CURDEP) are taken as dependent variables and the independent variables are saving deposit rate (SDR), fixed deposit rate (FDR), number of branches (NOB), return on assets (ROA), gross domestic product (GDP), population growth rate (PGR), money supply (MS) and consumer price index (CPI). All these independent variable are expected to influence the dependent variables.



## 2.4 Research Gap

Banks are financial intermediaries that issue deposits and use the proceeds to purchase securities. Deposits are the heart of financial institutions (Fama, 1980) If a bank is to survive, it must attract depositors, which means providing portfolios against which depositors are willing to hold claims. Moreover, competitive banks simply turn over the returns on their portfolios to their depositors, less a competitively determined management fee. Banks are concerned with the fees they earn rather than with the

types of portfolios they provide, so in a competitive equilibrium they provide in aggregate portfolios to the point where each different type produces management fees at the same rate (Tobin, 1963).

While reviewing literature, the results of determinants of banks deposits were found to be conflicting. Some studies have reported that savings increase as the inflation rate increase (Koskela and Viren, 1985), others reported negative relationship (Athukorala and Tsai, 2003). Yet still, some suggested that banks with large branch networks are able to attract more deposits, which is a cheaper source of funds (Chu & Lim, 1998).

Mangkuto (2004) found that the correlation between the conventional interest rate with the deposit is negative. However, Mujari and Younus (2009) said that low deposit rate is discouraging saving mobilization. Similarly, there is long run relationship between commercial banks deposits and the ROA of the banks (Erna and Syamsulhakim, 2004). Agrawal (2001) found that high savings in Asia because of increasing shares of independent population, and some special institutional features, such as the high central provident fund rates in Singapore. Haron and Azmi (2006) found that there is positive relationship between money supply and bank deposits. As income rise, a larger proportion of household assets are expected to held in financial form comprising of bank deposits to facilitate larger volumes of transaction undertaken by the household (Balnco and Meyer, 1988).

In the context of Nepal, Pradhan and Paneru (2016) stated that fixed deposit, saving deposit, number of branches and trend have the heights impact and influence on the bank deposit of commercial bank and change in it will yield the highest change in banks deposit. Khaniya (2014) found that there is significant impact of bank specific variabls and macroeconomic variabls on bank deposit.

Though there are number of studies on determinants of banks deposits, the literature shows no uniformity in the findings. Thus, the empirical results found in the other countries cannot be generalized in the context of another country. However, in the context of Nepal only few efforts have been made to examine the issues related to the determinants of banks deposit. Specifically, the study is primarily designed to fill the gap of similar studies in Nepalese context. 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 20 banks with 7



years of data. Thus, it is being believed that this study is different from earlier studies of Nepalese context and attempts to analyze the determinants of deposit of Nepalese commercial banks.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

Research methodology is a systematic way to solve a problem. It is a science of studying how research is to be carried out. Essentially, the procedures by which researchers go through their work of describing, explaining and predicting phenomena are called research methodology. This chapter therefore explains the methodology that is employed in this study which includes various sections describing research plan and design, description of the sample, instrumentation, data collection procedure and time frame, validity and reliability of the study and analysis plan. In the absence of methodology, it is likely that the conclusions drawn may be misunderstood.

Research methodology describes the method and process applied in the entire aspects of study and helps to resolve the systematic problems. Research methodology is used to collect information and data and sets out overall plan associated with a study. The methodology may include publications research, interviews, survey and other research techniques and could include both present and historical information. It provides a basic framework on which the study is based. Before presenting the analysis and interpretation of data, it is necessary that research methodology be described first.

#### **3.1 Research design**

The study is based on descriptive designs. The descriptive research design has been adopted for fact-finding and searching for adequate information about the fundamental issues associated with variables affecting deposits of Nepalese commercial banks. It describes the real and actual condition, situation and facts. Hence, the research design adopted in this study is of descriptive type.

The study also used causal comparative research design to establish the cause and effect relationship between bank deposits and its determinants of Nepalese commercial banks. More specifically, the study analyzes the impact of saving deposit rate, fixed deposit rate, number of branches, ROA on deposit of Nepalese commercial banks and gross domestic product, population growth rate, consumer price index and money supply of Nepalese economy of the during the time period of 2008/09 to 2014/15.

### **3.2 Population and Sample**

For the study purpose, banks involving in banking services at least for three years have been considered for sample. Since all of them did not provided scope for the study, 20 different Nepalese commercial banks were taken as a sample out of 28 Nepalese commercial banks for the period of 2008/09 to 2014/15, leading to a total of 140 observations.

### **3.3 Source of Data**

This section elaborates on how data were collected to carry out this study. The study is based on secondary data. The variables used in the study are deposit variables (saving deposit, fixed deposit and current deposit), macro-economic variables (gross domestic product, population growth rate, money supply and consumer price index) and firm specific variable (saving deposit rate, fixed deposit rate, number of branches and return on assets). The necessary secondary data and information has been collected from the annual reports of selected commercial banks, Central Bureau of Statistics of Nepal and Banking and Financial Statistics published by Nepal Rastra Bank.

### **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 like t-test, F-test, detection of and linear regression analysis. All models are tested for individual effects by running F-test using statistical package for social science (SPSS 16). Details analysis of models and statistical test of significance have been dealt in the following sections

### 3.5 Data Analysis Tools and Technique

The models employed in this study intend to analyze the relationship between factors affecting deposit and deposit variables. The following regression model is used in this study in an attempt to examine the empirical relationship between the determinants of deposit of Nepalese commercial bank. Therefore, the following model equation is designed to test the hypothesis. From the conceptual framework the function of dependent variables (i.e. deposits) takes the following form:

*Deposit = f (deposit rate, number of branches, return on assets, gross domestic product, population growth rate, money supply and consumer price index)*

More specifically, the given model has been segmented into following models:

#### Model 1:

$$SAVDEP_{it} = \beta_0 + \beta_1SDR_{it} + \beta_2NOB_{it} + \beta_3ROA_{it} + \beta_4GDP_{it} + \beta_5PGR_{it} + \beta_6MS_{it} + \beta_7CPI_{it} + e_{it}$$

In the above model, the dependent variable is the saving deposit indicated by the total saving amount deposited by deposit holders in selected commercial banks. The impact of saving deposit rate, number of branches, return on assets, gross domestic product, population growth rate, money supply and consumer price index on saving deposit is tested.

#### Model 2:

$$FXDEP_{it} = \beta_0 + \beta_1FDR_{it} + \beta_2NOB_{it} + \beta_3ROA_{it} + \beta_4GDP_{it} + \beta_5PGR_{it} + \beta_6MS_{it} + \beta_7CPI_{it} + e_{it}$$

In the above model, the dependent variable is the fixed deposit indicated by the total fixed amount deposited by deposit holders in selected commercial banks. The impact of fixed deposit rate, number of branches, return on assets, gross domestic product, population growth rate, money supply and consumer price index on saving deposit is tested.

#### Model 3:

$$CURDEP_{it} = \beta_0 + \beta_1NOB_{it} + \beta_2ROA_{it} + \beta_3GDP_{it} + \beta_4PGR_{it} + \beta_5MS_{it} + \beta_6CPI_{it} + e_{it}$$

In the above model, the dependent variable is the current deposit indicated by the total current amount deposited by deposit holders in selected commercial banks. The impact of number of branches, return on assets, gross domestic product, population growth rate, money supply and consumer price index on saving deposit is tested.

Where,

$\beta_0$  = Constant term

SDR = Saving deposit rate defined as ratio of total saving interest expenses to total saving deposit.

FDR = Fixed deposit rate defined as ratio of total fixed interest expenses to total fixed deposit.

NOB = Number of branches defined as retail location where bank services are offered to its customers.

ROA = Return on assets defined as ratio of net income to total assets.

PGR = Population growth rate defined as increase in the number of people reside in a country for the time period t.

CPI = Consumer price index defined as changes in the price level of market basket of consumer goods and services purchased by households.

GDP = Gross domestic product defined as the total value of goods produced and services provided in a country during one year

MS = Money supply defined as total amount of [monetary assets](#) available in an [economy](#) at a specific time.

## CHAPTER IV

### RESULTS

This chapter presents the systematic and orderly results of the study in the form of presentation, interpretations and analysis of the secondary data. The basic steps in the analytical process consist of identifying issues, determining the availability of suitable data, deciding the method appropriate for answering the questions of interest, applying the methods and evaluating, summarizing and communicating the result. Chapter four provides systematic presentation, interpretation and analysis of secondary data in order to deal with various issues associated with determinants of deposit of Nepalese commercial banks.

The purpose of this chapter is to analyze and interpret the data collected during the study. Various statistical tools described in chapter three have been used for this purpose. This chapter is divided into five sections. The first section deals with structure and pattern analysis of data, second section deals with descriptive statistics, third section deals with the correlation analysis, fourth section deals with step wise regression analysis and the final section wraps up this chapter with concluding remarks about the result derived for the secondary data.

#### **4.1 Structure and pattern of deposits, firm specific and macro-economic variables**

This section attempt of analyze the structure and pattern of banks deposit, firm specific variables and macro-economic variables for the period of 2008/09 to 2014/15. It also analyzes the mean and standard deviation of each individual bank separately as shown in the following Table. The methods used for this purpose are (N x n).

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

The structure and pattern of saving deposits for Nepalese commercial banks indicated that average saving deposit is highest for NBL (Rs. 33.55 Billion), followed by HBL (Rs. 24.62 Billion), ADBL (Rs. 23.75 Billion), NABL (Rs. 22.76 Billion), NIBL (Rs. 19.84 Billion), EBL (Rs. 19.80 Billion), SCBL (Rs. 15.10 Billion), GIMEBL (Rs. 11.92 Billion), SBIBL (Rs. 11.80 Billion), SIDBL (Rs. 10.15 Billion), MBL (Rs. 10.11 Billion), BOKL (Rs. 8.79 Billion), SUNBL (Rs. 7.66 Billion), NBBL (Rs. 7.31

Billion), KBL (Rs. 6.25 Billion), NCCBL (Rs. 6.00 Billion), LXBL (Rs. 4.89 Billion), CITBL (Rs. 4.82 Billion), PCBL (Rs. 3.51 Billion) and LUBL (Rs. 3.01 Billion). The average saving deposit computed across the year fluctuated over a period of time. At first it decreased from Rs. 9.98 Billion in 2009 to Rs. 8.66 Billion in 2011 then, it increased from Rs. 10.55 Billion in 2012 to Rs. 20.15 Billion in 2015.

**Table 4.1 Structure and pattern of saving deposits of Nepalese commercial banks for the period of 2009 to 2015 (Rs in Billion)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	14.62	13.78	14.29	17.99	23.34	32.60	42.72	<b>22.76</b>	<b>11.08</b>
<b>NIBL</b>	17.07	14.32	13.55	17.28	19.93	25.02	31.73	<b>19.84</b>	<b>6.49</b>
<b>SCBL</b>	19.19	12.43	11.62	15.55	17.89	19.53	23.48	<b>15.10</b>	<b>7.27</b>
<b>HBL</b>	20.06	16.29	15.99	21.92	26.48	32.84	38.73	<b>24.62</b>	<b>8.58</b>
<b>SBIBL</b>	5.82	7.35	8.08	10.34	12.90	16.61	21.49	<b>11.80</b>	<b>5.62</b>
<b>NBBL</b>	7.10	5.89	5.65	6.69	7.33	8.93	9.58	<b>7.31</b>	<b>1.47</b>
<b>EBL</b>	14.78	13.36	13.04	17.27	21.07	26.49	32.60	<b>19.80</b>	<b>7.41</b>
<b>BOKL</b>	7.26	6.72	6.61	8.12	9.15	10.96	12.69	<b>8.79</b>	<b>2.30</b>
<b>NCCBL</b>	5.46	4.93	4.92	5.42	5.75	7.18	8.32	<b>6.00</b>	<b>1.27</b>
<b>LUBL</b>	3.21	2.11	2.04	2.41	2.84	3.94	4.57	<b>3.02</b>	<b>0.96</b>
<b>MBL</b>	6.84	6.60	5.62	8.84	10.70	14.29	17.86	<b>10.11</b>	<b>4.52</b>
<b>KBL</b>	4.15	5.11	6.55	5.89	6.82	7.23	8.01	<b>6.25</b>	<b>1.31</b>
<b>LXBL</b>	3.46	3.68	3.22	4.40	5.00	6.31	8.12	<b>4.89</b>	<b>1.78</b>
<b>SIDBL</b>	3.47	2.96	3.17	5.67	33.81	9.52	12.42	<b>10.15</b>	<b>11.03</b>
<b>GIMEBL</b>	3.40	4.35	3.86	11.33	14.98	20.40	25.11	<b>11.92</b>	<b>8.66</b>
<b>CITBL</b>	3.61	3.81	3.24	4.72	4.69	6.05	7.60	<b>4.82</b>	<b>1.54</b>
<b>PCBL</b>	2.02	1.91	2.12	3.15	4.25	5.12	6.02	<b>3.51</b>	<b>1.65</b>
<b>SUNBL</b>	5.55	6.26	5.49	7.18	8.24	9.86	11.04	<b>7.66</b>	<b>2.16</b>
<b>ADBBL</b>	21.38	18.54	16.87	20.78	24.20	30.05	34.42	<b>23.75</b>	<b>6.36</b>
<b>NBL</b>	31.08	27.24	27.26	29.98	33.81	38.98	46.52	<b>33.55</b>	<b>7.02</b>
<b>Mean</b>	<b>9.98</b>	<b>8.88</b>	<b>8.66</b>	<b>10.55</b>	<b>14.66</b>	<b>16.60</b>	<b>20.15</b>		
<b>SD</b>	<b>8.12</b>	<b>6.62</b>	<b>6.49</b>	<b>7.74</b>	<b>9.85</b>	<b>10.93</b>	<b>13.43</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

The structure and pattern of saving deposit for Nepalese commercial banks indicated that average saving deposit is highest for NBL (Rs. 33.55 Billion), followed by HBL

(Rs. 24.62 Billion), ADBL (Rs. 23.75 Billion), NABL (Rs. 22.76 Billion), NIBL (Rs. 19.84 Billion), EBL (Rs. 19.80 Billion), SCBL (Rs. 15.10 Billion), GIMEBL (Rs. 11.92 Billion), SBIBL (Rs. 11.80 Billion), SIDBL (Rs. 10.15 Billion), MBL (Rs. 10.11 Billion), BOKL (Rs. 8.79 Billion), SUNBL (Rs. 7.66 Billion), NBBL (Rs. 7.31 Billion), KBL (Rs. 6.25 Billion), NCCBL (Rs. 6.00 Billion), LXBL (Rs. 4.89 Billion), CITBL (Rs. 4.82 Billion), PCBL (Rs. 3.51 Billion) and LUBL (Rs. 3.01 Billion). The average saving deposit computed across the year fluctuated over a period of time. At first it decreased from Rs. 9.98 Billion in 2009 to Rs. 8.66 Billion in 2011 then, it increased from Rs. 10.55 Billion in 2012 to Rs. 20.15 Billion in 2015.

According to the table, saving deposit has increased within the individual banks also. It increased from Rs. 14.62 to Rs. 41.72 Billion for NABL, from Rs. 17.07 to Rs. 31.73 Billion for NIBL, from Rs. 19.19 to Rs. 23.48 Billion for SCBL, from Rs. 20.06 to Rs. 38.73 Billion for HBL, from Rs. 5.82 to Rs. 21.49 Billion for SBIBL, from Rs. 7.10 to Rs. 9.58 Billion for NBBL, from Rs. 14.78 to Rs. 32.60 Billion for EBL, from Rs. 7.26 to Rs. 12.69 Billion for BOKL, from Rs. 5.46 to 8.32 Billion for NCCBL, from Rs. 3.21 to 4.57 Billion for LUBL, from Rs. 6.84 to Rs. 17.86 Billion for MBL, from Rs. 4.15 to 8.01 Billion for KBL, from 3.46 to Rs. 8.12 Billion for LXBL, from Rs. 3.47 to Rs. 12.42 Billion for SIDBL, from Rs. 3.40 to Rs. 25.11 Billion for GIMEBL, from Rs. 3.61 to Rs. 7.60 Billion for CITBL, from Rs. 2.02 to Rs. 6.02 Billion for PCBL, from Rs. 5.55 to Rs. 11.04 Billion for SUNBL, from Rs. 21.38 to Rs. 34.42 Billion for ADBL and from Rs. 31.08 to Rs. 46.52 Billion for NBL in 2015 over 2009. Thus, the variation in saving deposit indicated by standard deviation (S. D.) is lowest for LUBL followed by NCCBL, KBL, NBBL, CITBL, PCBL, LXBL, SUNBL, BOKBL, MBL, SBIBL, ADBL, NIBL, NBL, SCBL, EBL, HBL, GIMEBL, and NABL.

The saving deposit is highest for NBL in 2009 to 2015. Similarly, the saving deposit is lowest for PCBL in 2009 and 2011. Likewise, the saving deposit is lowest for LUBL in year 2009 to 2015.

When the saving deposit is compared over a period of time for individual banks, it is noticed that saving deposit has increased in all of the selected commercial banks in recent years.



Figure 4.1 shows the trend of average saving deposit of selected Nepalese commercial banks.

**Figure 4.1: Average saving deposit trend of selected Nepalese commercial banks**

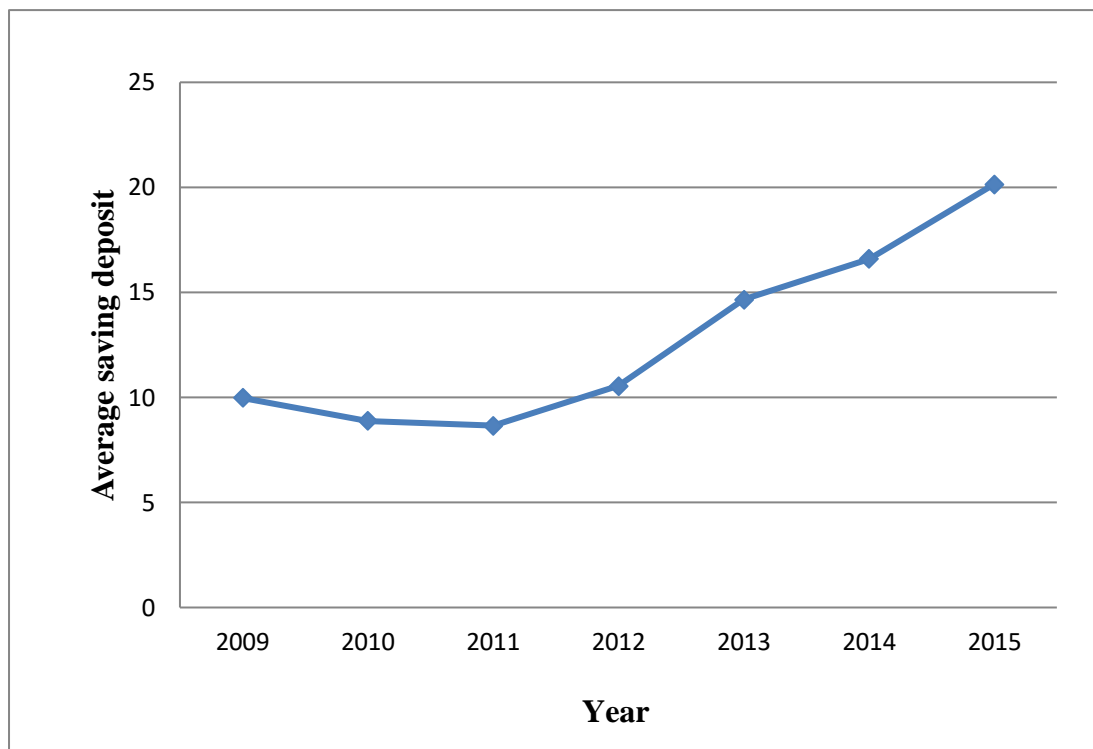


Figure 4.1 shows the comparative pattern of average saving deposit of commercial banks from 2009 to 2015. The graph shows that average saving deposit has increased from Rs. 9.98 billion in 2009 to Rs. 20.15 billion in 2015. The average saving deposit trend is upward sloping indicating the continuous increment in average saving deposit.

Table 4.2 shows the structure and pattern of fixed deposit in selected Nepalese commercial banks.

The structure and pattern of fixed deposit for Nepalese commercial banks revealed that average fixed deposit is highest for SBIBL (Rs. 27.10 Billion), followed by ADBL (Rs. 19.10 Billion), NIBL (Rs. 17.45 Billion), EBL (Rs. 13.43 Billion), NABL (Rs. 11.92 Billion), HBL (Rs. 11.56 Billion), LXBL (Rs. 11.54 Billion), GIMEBL (Rs. 11.20 Billion), SIDBL (Rs. 11.19 Billion), PCBL (Rs. 9.60 Billion), CITBL (Rs. 9.50 Billion), KBL (Rs. 9.36 Billion), NBL (Rs. 9.02 Billion), BOKBL (Rs. 8.53 Billion), SUNBL (Rs. 8.39 Billion), MBL (Rs. 8.35 Billion), SCBL (Rs. 5.85 Billion),

NCCBL (Rs. 5.29 Billion), NBBL (Rs. 5.13 Billion) and LUBL (Rs. 4.76 Billion) The average fixed deposit computed across the year increased over a period of time. It increased from Rs. 6.01 Billion in 2009 to Rs. 15.55 Billion in 2015.

**Table 4.2 Structure and pattern of fixed deposits of Nepalese commercial banks for the period of 2009 to 2015 (Rs in Billion)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	8.31	14.71	16.84	14.04	1.79	11.85	15.87	<b>11.92</b>	<b>5.29</b>
<b>NIBL</b>	11.63	16.83	18.38	20.06	15.99	18.02	21.23	<b>17.45</b>	<b>3.13</b>
<b>SCBL</b>	7.10	9.18	10.14	4.62	3.71	3.08	3.12	<b>5.85</b>	<b>2.95</b>
<b>HBL</b>	6.38	11.33	13.51	11.87	13.96	13.59	10.31	<b>11.56</b>	<b>2.65</b>
<b>SBIBL</b>	17.44	22.15	28.01	36.21	38.18	28.57	19.13	<b>27.10</b>	<b>8.06</b>
<b>NBBL</b>	0.81	1.36	2.60	2.80	4.33	8.50	15.54	<b>5.13</b>	<b>5.25</b>
<b>EBL</b>	7.09	10.44	15.06	13.01	14.10	14.53	19.78	<b>13.43</b>	<b>3.96</b>
<b>BOKL</b>	4.47	6.38	7.85	7.65	9.99	9.13	14.26	<b>8.53</b>	<b>3.10</b>
<b>NCCBL</b>	1.15	1.90	3.14	4.87	9.16	7.79	9.01	<b>5.29</b>	<b>3.38</b>
<b>LUBL</b>	1.11	2.11	3.67	3.57	5.03	7.97	9.83	<b>4.76</b>	<b>3.14</b>
<b>MBL</b>	3.68	6.75	6.50	7.07	10.07	12.61	11.74	<b>8.35</b>	<b>3.21</b>
<b>KBL</b>	4.53	7.21	6.65	9.16	11.35	12.14	14.47	<b>9.36</b>	<b>3.49</b>
<b>LXBL</b>	7.19	7.82	9.45	10.73	13.58	14.71	17.29	<b>11.54</b>	<b>3.76</b>
<b>SIDBL</b>	7.16	10.20	11.46	10.97	12.65	11.88	14.03	<b>11.19</b>	<b>2.16</b>
<b>GIMEBL</b>	4.57	6.21	6.40	10.14	12.12	19.54	19.42	<b>11.20</b>	<b>6.21</b>
<b>CITBL</b>	3.68	6.53	6.02	7.41	11.11	12.60	19.12	<b>9.50</b>	<b>5.23</b>
<b>PCBL</b>	5.38	6.76	7.44	9.73	9.47	11.58	16.85	<b>9.60</b>	<b>3.81</b>
<b>SUNBL</b>	4.21	4.87	4.87	7.01	10.86	10.49	16.41	<b>8.39</b>	<b>4.45</b>
<b>ADBL</b>	10.67	11.12	14.57	18.03	22.37	24.75	32.19	<b>19.10</b>	<b>7.86</b>
<b>NBL</b>	3.58	4.24	7.48	11.66	12.65	12.12	11.37	<b>9.02</b>	<b>3.88</b>
<b>Mean</b>	<b>6.01</b>	<b>8.40</b>	<b>10.00</b>	<b>11.03</b>	<b>12.12</b>	<b>13.27</b>	<b>15.55</b>		
<b>SD</b>	<b>3.95</b>	<b>5.15</b>	<b>6.24</b>	<b>7.41</b>	<b>7.70</b>	<b>5.86</b>	<b>5.93</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

Table 4.2 also shows fixed deposit has increased within the individual banks also. It increased from Rs. 8.31 to Rs. 15.87 Billion for NABL, from Rs. 11.63 to Rs. 21.23 Billion for NIBL, from Rs. 6.38 to Rs. 10.31 Billion for HBL, from Rs. 17.44 to Rs. 19.13 Billion for SBIBL, from Rs. 0.81 to Rs. 15.54 Billion for NBBL, from Rs. 7.09

to Rs. 19.68 Billion for EBL, from Rs. 4.47 to Rs. 14.26 Billion for BOKL, from Rs. 1.15 to 9.01 Billion for NCCBL, from Rs. 1.11 to 9.83 Billion for LUBL, from Rs. 3.68 to Rs. 11.74 Billion for MBL, from Rs. 4.53 to 14.47 Billion for KBL, from 7.19 to Rs. 17.29 Billion for LXBL, from Rs. 7.16 to Rs. 14.03 Billion for SIDBL, from Rs. 4.57 to Rs. 19.42 Billion for GIMEBL, from Rs. 3.68 to Rs. 19.12 Billion for CITBL, from Rs. 5.38 to Rs. 16.85 Billion for PCBL, from Rs. 4.21 to Rs. 16.41 Billion for SUNBL, from Rs. 10.67 to Rs. 32.19 Billion for ADBL and from Rs. 3.58 to Rs. 11.37 Billion for NBL. Similarly, fixed deposit has decreased from Rs. 7.10 to Rs. 3.12 Billion for SCBL in 2015 over 2009. Thus, the variation in fixed deposit indicated by standard deviation (S. D.) is lowest for SIDBL followed by HBL, SCBL, BOKL, NIBL, LUBL, MBL, NCCBL, KBL, LXBL, PCBL, NBL, EBL, SUNBL, CITBL, NBBL, NABL, GIMEBL, ADBL, and SBIBL.

When the fixed deposit is compared over a period of time for individual banks, it is noticed that fixed deposit has increased in all of the selected commercial banks in recent years.

Figure 4.2 shows the trend of average fixed deposit of selected Nepalese commercial banks.

**Figure 4.2: Average fixed deposits trend of Nepalese commercial banks**

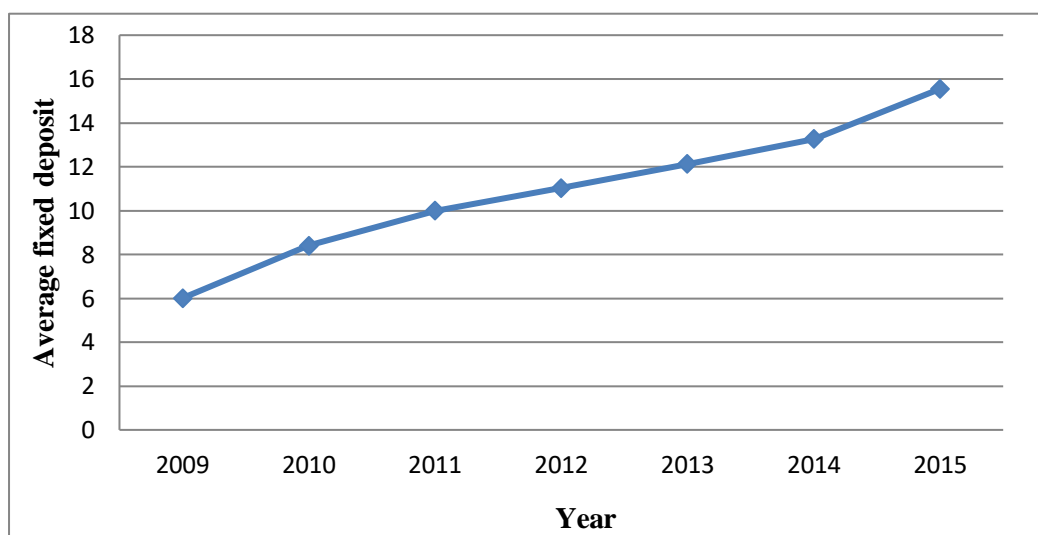


Figure 4.2 shows the comparative pattern of average fixed deposit of commercial banks from 2009 to 2015. The graph shows that average fixed deposit has increased

from Rs. 6.01 billion in 2009 to Rs. 15.65 billion in 2015. Thus the figure indicates that average fixed deposit for all types of banks is increasing over the study period.

Table 4.3 shows the structure and pattern of current deposit of Nepalese commercial banks.

**Table 4.3 Structure and pattern of current deposits of Nepalese commercial banks for the period of 2009 to 2015 (Rs. in Billion)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	5.52	7.92	5.82	6.73	7.50	9.71	12.93	<b>8.02</b>	<b>2.58</b>
<b>NIBL</b>	3.76	4.03	4.04	6.61	5.58	10.32	11.74	<b>6.58</b>	<b>3.23</b>
<b>SCBL</b>	6.20	9.76	11.55	11.32	13.89	13.77	17.14	<b>11.95</b>	<b>3.47</b>
<b>HBL</b>	7.57	9.04	3.69	4.58	5.84	6.42	8.48	<b>6.52</b>	<b>1.98</b>
<b>SBIBL</b>	2.86	2.86	4.26	3.78	5.02	4.12	4.82	<b>3.96</b>	<b>0.86</b>
<b>NBBL</b>	1.08	1.27	1.19	1.62	1.36	1.74	2.11	<b>1.48</b>	<b>0.36</b>
<b>EBL</b>	4.86	4.17	4.79	6.10	8.10	6.49	7.08	<b>5.94</b>	<b>1.41</b>
<b>BOKL</b>	2.29	2.75	2.43	2.79	2.33	3.25	3.79	<b>2.80</b>	<b>0.55</b>
<b>NCCBL</b>	0.59	0.57	0.62	0.65	0.73	0.83	0.97	<b>0.71</b>	<b>0.15</b>
<b>LUBL</b>	0.53	0.35	0.30	0.37	0.34	0.47	0.57	<b>0.42</b>	<b>0.10</b>
<b>MBL</b>	0.55	0.63	0.49	0.63	0.90	1.26	1.60	<b>0.87</b>	<b>0.42</b>
<b>KBL</b>	0.78	0.63	0.79	0.96	1.03	1.24	1.46	<b>0.98</b>	<b>0.29</b>
<b>LXBL</b>	1.04	0.82	0.75	0.88	0.99	1.12	2.98	<b>1.23</b>	<b>0.78</b>
<b>SIDBL</b>	0.39	0.37	0.50	0.75	13.79	2.17	2.59	<b>2.94</b>	<b>4.87</b>
<b>GIMEBL</b>	0.33	0.51	0.70	0.86	1.32	2.43	3.29	<b>1.35</b>	<b>1.11</b>
<b>CITBL</b>	0.40	0.38	0.32	0.51	0.71	0.78	1.09	<b>0.60</b>	<b>0.28</b>
<b>PCBL</b>	0.23	0.48	0.55	0.60	0.75	0.99	1.28	<b>0.70</b>	<b>0.35</b>
<b>SUNBL</b>	0.47	0.46	0.36	0.51	0.65	0.80	1.26	<b>0.64</b>	<b>0.31</b>
<b>ADBL</b>	3.10	2.46	2.84	4.35	7.81	8.75	8.09	<b>5.34</b>	<b>2.76</b>
<b>NBL</b>	9.57	10.54	10.92	12.33	13.79	15.53	17.70	<b>12.91</b>	<b>2.93</b>
<b>Mean</b>	<b>2.61</b>	<b>3.00</b>	<b>2.85</b>	<b>3.35</b>	<b>4.62</b>	<b>4.61</b>	<b>5.55</b>		
<b>SD</b>	<b>2.78</b>	<b>3.49</b>	<b>3.36</b>	<b>3.64</b>	<b>4.78</b>	<b>4.68</b>	<b>5.44</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

The structure and pattern of current deposit for Nepalese commercial banks indicated that average current deposit is highest for NBL (Rs. 12.91 Billion), followed by SCBL (Rs. 11.93 Billion), NABL (Rs. 8.02 Billion), NIBL (Rs. 6.58 Billion), HBL (Rs. 6.52 Billion), EBL (Rs. 5.94 Billion), ADBL (Rs. 5.34 Billion), SBIBL (Rs. 3.96 Billion), SIBL (Rs. 2.94 Billion), BOKL (Rs. 2.80 Billion), NBBL (Rs. 1.48 Billion), GIMEBL (Rs. 1.35 Billion), LXBL (Rs. 1.23 Billion), KBL (Rs. 0.98 Billion),

MBL(Rs. 0.87 Billion), NCCBL (Rs. 0.71 Billion), PCBL (Rs. 0.70 Billion), SUNBL (Rs. 0.64 Billion), CITBL (Rs. 0.60 Billion) and LUBL (Rs. 0.42 Billion), The average current deposit computed across the year is increased over a period of time. It increased from Rs. 2.61 Billion in 2009 to Rs. 5.55 Billion in 2015

According to the table, current deposit has increased within the individual banks also. It is increased from Rs. 5.52 to Rs. 12.93 Billion for NABL, from Rs. 3.76 to Rs. 11.74 Billion for NIBL, from Rs. 6.20 Billion for SCBL, from Rs. 7.57 to Rs. 8.48 Billion for HBL, from Rs. 2.86 to Rs. 4.82 Billion for SBIBL, from Rs. 1.08 to Rs. 2.11 Billion for NBBL, from Rs. 4.86 to Rs. 7.08 Billion for EBL, from Rs. 2.29 to Rs. 3.79 Billion for BOKL, from Rs. 0.59 to 0.97 Billion for NCCBL, from Rs. 0.53 to 0.57 Billion for LUBL, from Rs. 0.55 to Rs. 1.60 Billion for MBL, from Rs. 0.78 to 1.46 Billion for KBL, from 1.04 to Rs. 2.98 Billion for LXBL, from Rs. 0.39 to Rs. 2.59 Billion for SIDBL, from Rs. 0.33 to Rs. 3.29 Billion for GIMEBL, from Rs. 0.40 to Rs. 1.09 Billion for CITBL, from Rs. 0.23 to Rs. 1.28 Billion for PCBL, from Rs. 0.47 to Rs. 1.26 Billion for SUNBL, from Rs. 3.10 to Rs. 8.09 Billion for ADBL and from Rs. 9.57 to Rs. 17.70 Billion for NBL in 2015 over 2009. Thus, the variation in current deposit indicated by standard deviation (S. D.) is lowest for LUBL followed by NCCBL, CITBL, KBL, SUNBL, PCBL, NBBL, MBL, BOKL, LXBL, SBIBL, GIMEBL, EBL, HBL, NABL, ADBL, NBL, NIBL, SCBL, and SIDBL.

When the current deposit is compared over a period of time for individual banks, it is noticed that current deposit has increased in all of the selected commercial banks in recent years.

Figure 4.3 shows the trend of average current deposit of Nepalese commercial banks.

Figure 4.3 shows the comparative pattern of average current deposit of commercial banks from 2009 to 2015. The graph shows that average current deposit has increased from Rs. 2.61 billion in 2009 to Rs. 5.55 billion in 2015. Thus, the figure indicates that average current deposit for all types of banks is increasing over the study period.

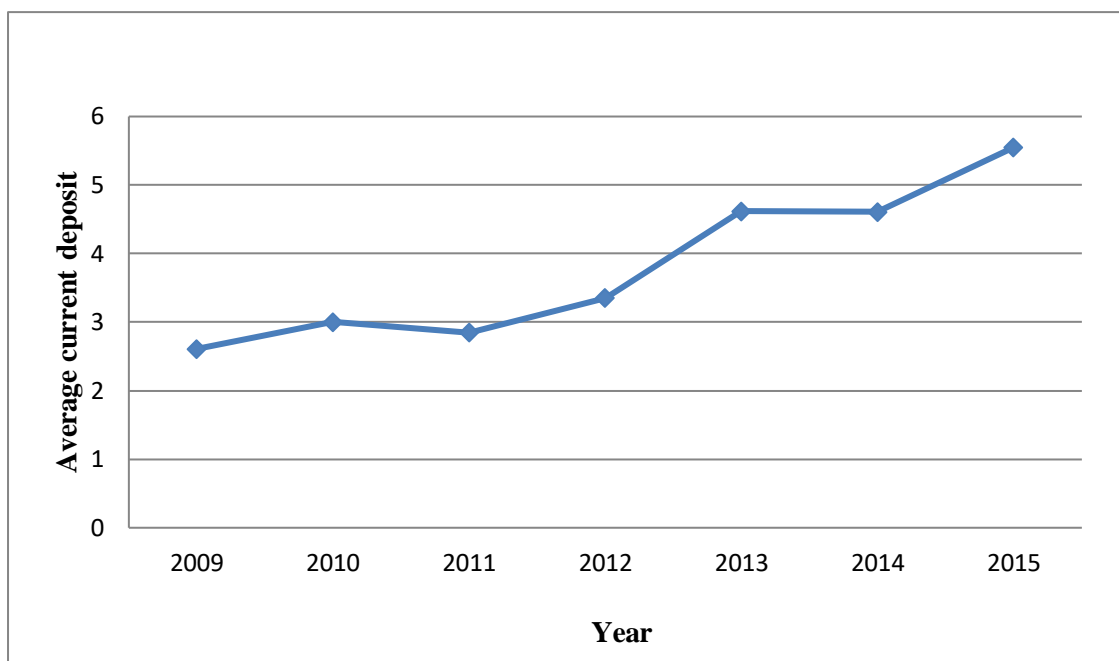
**Figure 4.3: Average current deposits trend of Nepalese commercial banks**

Table 4.4 shows the structure and pattern of saving deposit rate of selected Nepalese commercial banks.

The structure and pattern of saving deposit rate for Nepalese commercial banks indicated that average saving deposit rate is highest for SUNBL (3.34 percent), followed by CITBL (3.14 percent), KBL (3.07 percent), PCBL (3.07 percent), LUBL (3.04 percent), GIMEBL (3.00 percent), NBBL (2.92 percent), SIDBL (2.89 percent), NCCBL (2.86 percent), MBL (2.71 percent), NABL (2.63 percent), LXBL (2.57 percent), EBL (2.23 percent), NIBL (2.21 percent), SBIBL (2.15 percent), HBL (2.11 percent), ADBL (2.07 percent), BOKL (2.00 percent), SCBL (1.29 percent), NBL (1.25 percent). The average saving deposit rate computed across the year is decrease over a period of time. In 2009, average saving deposit rate is 3.53 percent then increased to 3.61 percent in 2010. Similarly, in 2011 average deposit rate is 3.24 percent then decreased to 1.51 percent in 2015.

According to the table, saving deposit rate is widely varies within the individual banks also. It increased from 2.00 to 2.40 percent for NABL and from 2.50 to 2.50 percent for NIBL. Similarly, deposit rate is decreased from 3.00 to 1.00 percent for SBIBL, from 2.25 to 1.50 percent for BOKL, from 4.50 to 1.50 percent for NCCBL, from 5.00 to 1.00 percent for LUBL, from 4.00 to 1.50 percent for MBL, from 4.5 to 1.5

percent for CITBL, from 3.00 to 2.00 percent for ADBL and from 2.00 to 0.50 percent for NBL, from 2.00 to 0.75 percent for SCBL, from 2.25 to 1.00 percent for HBL, from 4.50 to 1.50 percent for NBBL, from 3.00 to 2.00 percent for EBL, from 4.00 to 1.50 percent for KBL, from 3.50 to 1.50 percent for LXBL, from 5.00 to 1.50 percent for SIDBL, from 4.00 to 1.50 percent for GIMEBL, from 4.00 to 1.70 percent for PCBL and from 6.50 to 2.00 percent for SUNBL in 2015 over 2009. Thus, the variation in saving deposit rate indicated by standard deviation (S. D.) is lowest for EBL followed by BOKL, NIBL, NABL, EBL, SCBL, NBL, HBL, ADBL, SBIBL, MBL, LXBL, NBBL, NCCBL, KBL, GIMEBL, SIDBL, LUBL, PCBL, CITBL and SUNBL.

**Table 4.4 Structure and pattern of saving deposit rate of Nepalese commercial banks for the period of 2009 to 2015 (in percentage)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	2	3	3	2.9	2.8	2.3	2.4	<b>2.63</b>	<b>0.39</b>
<b>NIBL</b>	2.5	2.5	2	2	2	2	2.5	<b>2.21</b>	<b>0.27</b>
<b>SCBL</b>	2	2	1.5	1	1	0.75	0.75	<b>1.29</b>	<b>0.55</b>
<b>HBL</b>	2.25	3	2	2.5	2	2	1	<b>2.11</b>	<b>0.61</b>
<b>SBIBL</b>	3	3	3	1.57	2	1.5	1	<b>2.15</b>	<b>0.84</b>
<b>NBBL</b>	4.5-	4.5	4	3	2.5	2	1.5	<b>2.92</b>	<b>1.16</b>
<b>EBL</b>	3	3	2	1.6	2	2	2	<b>2.23</b>	<b>0.55</b>
<b>BOKL</b>	2.25	2.25	2	2	2	2	1.5	<b>2</b>	<b>0.25</b>
<b>NCCBL</b>	4.5	4.5	3	2.5	2	2	1.5	<b>2.86</b>	<b>1.21</b>
<b>LUBL</b>	5	5	4	2.5	2	1.75	1	<b>3.04</b>	<b>1.62</b>
<b>MBL</b>	4	4	3	2.5	2.5	1.5	1.5	<b>2.71</b>	<b>1.04</b>
<b>KBL</b>	4	4	5	2.5	3	1.5	1.5	<b>3.07</b>	<b>1.34</b>
<b>LXBL</b>	3.5	3	4.5	2	2	1.5	1.5	<b>2.57</b>	<b>1.13</b>
<b>SIDBL</b>	5	5	3	3	1	1.75	1.5	<b>2.89</b>	<b>1.62</b>
<b>GIMEBL</b>	4	4	5	3	2	1.5	1.5	<b>3</b>	<b>1.38</b>
<b>CITBL</b>	4.5	4.5	6	2	2	1.5	1.5	<b>3.14</b>	<b>1.82</b>
<b>PCBL</b>	4	4	6	2.5	2	1.5	1.5	<b>3.07</b>	<b>1.67</b>
<b>SUNBL</b>	6.5	6	2.87	2.5	2	1.5	2	<b>3.34</b>	<b>2.04</b>
<b>ADBL</b>	3	3	2	1.5	1.5	1.5	2	<b>2.07</b>	<b>0.67</b>
<b>NBL</b>	2	2	1	1.5	0.75	1	0.5	<b>1.25</b>	<b>0.6</b>
<b>Average</b>	<b>3.53</b>	<b>3.61</b>	<b>3.24</b>	<b>2.23</b>	<b>1.95</b>	<b>1.65</b>	<b>1.51</b>		
<b>SD</b>	<b>1.25</b>	<b>1.1</b>	<b>1.46</b>	<b>0.58</b>	<b>0.56</b>	<b>0.37</b>	<b>0.51</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

When the saving deposit rate is compared over a period of time for individual banks, it is noticed that deposit rate has decreased in all of the selected commercial banks in recent years.

Figure 4.4 shows the pattern of average saving deposit rate of selected Nepalese commercial banks.

**Figure 4.4: Comparative pattern of average saving deposits rate of selected Nepalese commercial banks**

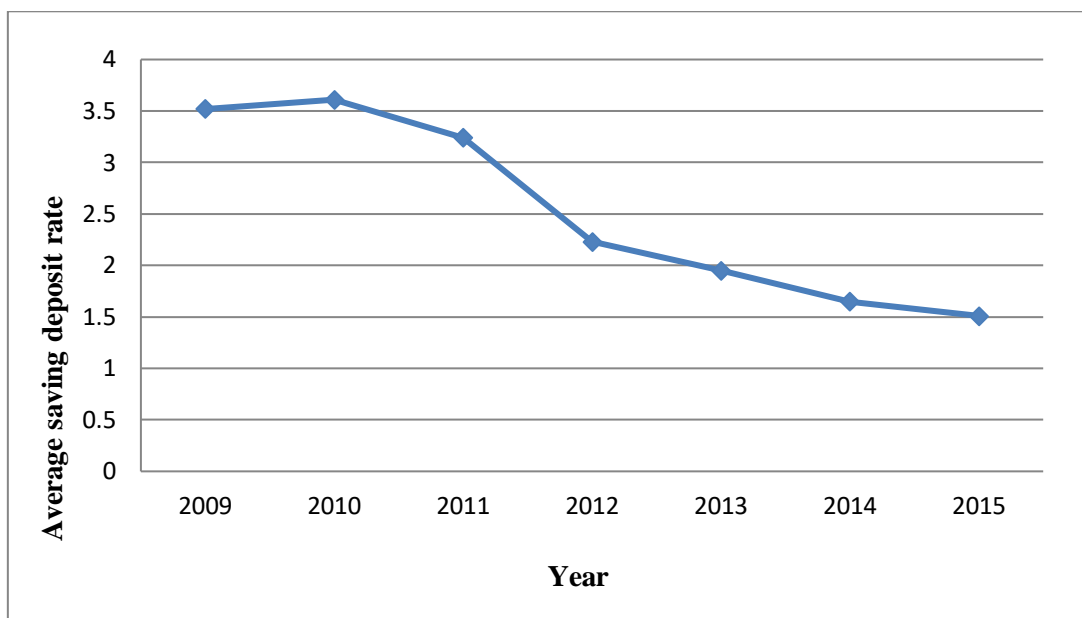


Figure 4.4 shows the comparative pattern of average saving deposit rate of commercial banks from 2009 to 2015. The figure indicates that average deposit rate for all types of banks is decrease over the study period. In 2009, average saving deposit rate is 3.53 percent then increased to 3.61 percent in 2010. Similarly, in 2011 average deposit rate is 3.24 percent then decreased to 1.51 percent in 2015.

Table 4.5 shows the structure and pattern of fixed deposit rate of selected Nepalese commercial banks.

The structure and pattern of fixed deposit rate for Nepalese commercial banks indicated that average fixed deposit rate is highest for NABL (6.00 percent), followed by PCBL (5.86 percent), GIMEBL (5.54 percent), MBL (5.50 percent), HBL (5.09 percent), KBL (5.00 percent), LXBL (4.79 percent), BOKL (4.54 percent), SUNBL (4.35 percent), NBBL (24.29 percent), ADBL (4.25 percent), CITBL (4.14 percent), NCCBL (4.07 percent), SBIBL (3.93 percent), LUBL (3.96 percent), NIBL (3.83 percent), EBL (3.50 percent), BL (2.07 percent), SCBL (3.39 percent) and NBL (2.36 percent). The average fixed deposit rate computed across the year is decrease over a



period of time. In 2009, average fixed deposit rate is 5.54 percent then increased to 7.47 percent in 2010. Similarly, in 2011 average fixed deposit rate is 4.74 percent then decreased to 2.85 percent in 2015.

**Table 4.5 Structure and pattern of fixed deposit rate of Nepalese commercial banks for the period of 2009 to 2015 (in percentage)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	7.00	9.50	6.10	5.80	5.60	4.30	3.80	<b>6.01</b>	<b>1.88</b>
<b>NIBL</b>	5.50	5.50	3.00	3.00	3.83	3.00	3.00	<b>3.83</b>	<b>1.29</b>
<b>SCBL</b>	2.50	10.50	3.00	2.00	2.00	1.75	2.00	<b>3.39</b>	<b>3.16</b>
<b>HBL</b>	6.50	9.50	5.00	4.60	4.00	3.00	3.00	<b>5.09</b>	<b>2.30</b>
<b>SBIBL</b>	6.00	6.00	5.00	3.00	2.50	2.00	3.00	<b>3.93</b>	<b>1.69</b>
<b>NBBL</b>	4.75	4.75	4.00	5.00	4.50	4.00	3.00	<b>4.29</b>	<b>0.68</b>
<b>EBL</b>	4.00	4.00	3.00	4.00	4.00	3.00	2.50	<b>3.50</b>	<b>0.65</b>
<b>BOKL</b>	6.25	8.50	4.00	3.50	3.50	3.00	3.00	<b>4.54</b>	<b>2.07</b>
<b>NCCBL</b>	5.00	5.00	4.00	4.50	3.50	3.50	3.00	<b>4.07</b>	<b>0.79</b>
<b>LUBL</b>	5.00	5.75	3.00	4.00	4.00	3.00	3.00	<b>3.96</b>	<b>1.08</b>
<b>MBL</b>	7.00	11.50	6.00	4.00	4.00	3.00	3.00	<b>5.50</b>	<b>3.04</b>
<b>KBL</b>	6.50	10.00	5.00	4.00	3.50	3.00	3.00	<b>5.00</b>	<b>2.53</b>
<b>LXBL</b>	8.00	9.00	2.00	3.50	4.00	3.00	4.00	<b>4.79</b>	<b>2.64</b>
<b>SIDBL</b>	4.50	4.50	4.00	4.00	3.00	3.00	2.50	<b>3.64</b>	<b>0.80</b>
<b>GIMEBL</b>	5.00	10.00	11.00	4.00	3.50	3.00	2.25	<b>5.54</b>	<b>3.51</b>
<b>CITBL</b>	6.00	6.00	3.00	4.00	4.00	3.00	3.00	<b>4.14</b>	<b>1.35</b>
<b>PCBL</b>	6.50	10.00	11.00	4.00	3.50	3.00	3.00	<b>5.86</b>	<b>3.40</b>
<b>SUNBL</b>	4.75	9.00	4.68	2.00	4.00	3.00	3.00	<b>4.35</b>	<b>2.28</b>
<b>ADBL</b>	7.00	7.25	5.00	4.00	4.00	3.00	2.50	<b>4.25</b>	<b>1.60</b>
<b>NBL</b>	3.00	3.00	3.00	2.50	2.00	1.50	1.50	<b>2.36</b>	<b>0.69</b>
<b>Average</b>	<b>5.54</b>	<b>7.47</b>	<b>4.74</b>	<b>3.77</b>	<b>3.64</b>	<b>2.95</b>	<b>2.85</b>		
<b>SD</b>	<b>1.40</b>	<b>2.63</b>	<b>2.41</b>	<b>0.93</b>	<b>0.84</b>	<b>0.64</b>	<b>0.55</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

According to the table, fixed deposit rate is widely varies within the individual banks also. It decreased from 6.00 to 3.00 percent for SBIBL, from 6.25 to 3.00 percent for BOKL, from 5.00 to 3.00 percent for NCCBL, from 5.00 to 3.00 percent for LUBL, from 7.00 to 3.00 percent for MBL, from 6.00 to 3.00 percent for CITBL, from 7.00 to 2.50 percent for ADBL, from 3.00 to 1.50 percent for NBL, from 7.00 to 3.80 percent for NABL, from 5.50 to 3.00 percent for NIBL, from 2.50 to 2.00 percent for SCBL, from 6.50 to 3.00 percent for HBL, from 4.75 to 3.00 percent for NBBL, from

4.00 to 2.50 percent for EBL, from 6.50 to 3.00 percent for KBL, from 8.00 to 4.00 percent for LXBL, from 4.50 to 2.50 percent for SIDBL, from 5.00 to 2.25 percent for GIMEBL, from 6.50 to 3.00 percent for PCBL and from 4.75 to 3.00 percent for SUNBL in 2015 over 2009. Thus, the variation in fixed deposit rate indicated by standard deviation (S. D.) is lowest for EBL followed by NBBL, NBL, NCCBL, SIDBL, LUBL, NIBL, CITBL, ADBL, SBIBL, NABL, BOKL, SUNBL, HBL, KBL, LXBL, MBL, SCBL, PCBL and GIMEBL.

When the fixed deposit rate is compared over a period of time for individual banks, it is noticed that fixed deposit rate has decreased in all of the selected commercial banks in recent years.

Figure 4.5 shows the pattern of average fixed deposit rate of selected Nepalese commercial banks.

**Figure 4.5: Comparative pattern of fixed saving deposit rate of selected Nepalese commercial banks**

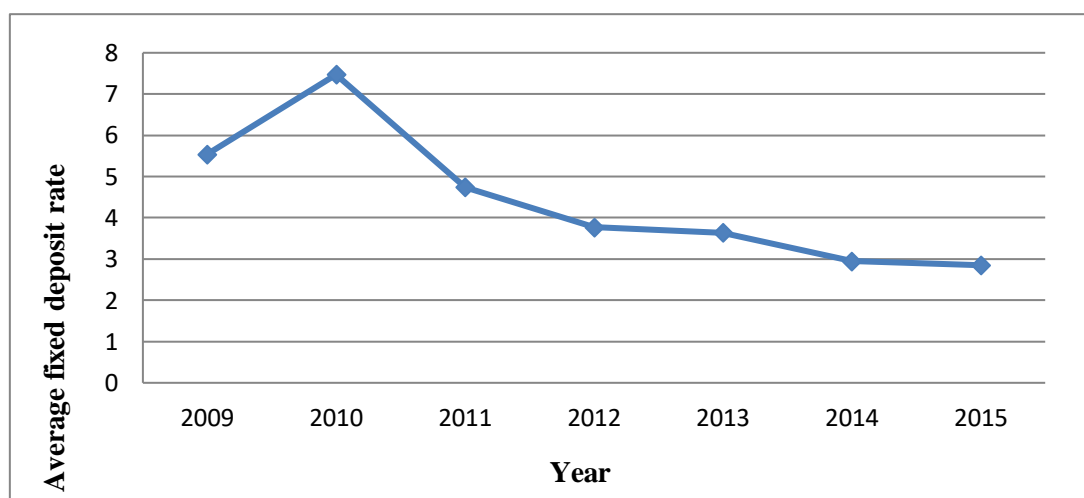


Figure 4.5 shows the comparative pattern of average fixed deposit rate of commercial banks from 2009 to 2015. The figure indicates that average fixed deposit rate for all types of banks is decrease over the study period. In 2009, average fixed deposit rate is 5.54 percent then increased to 7.47 percent in 2010. Similarly, in 2011 average deposit rate is 4.74 percent then decreased to 2.85 percent in 2015.

Table 4.6 shows the structure and pattern of number of branches in selected Nepalese commercial banks.

**Table 4.6 Structure and pattern of number of branches of Nepalese commercial banks for the period of 2009 to 2015 (in numbers)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	38.00	49.00	49.00	52.00	51.00	51.00	55.00	<b>49.29</b>	<b>5.38</b>
<b>NIBL</b>	19.00	31.00	40.00	41.00	44.00	43.00	46.00	<b>37.71</b>	<b>9.55</b>
<b>SCBL</b>	13.00	15.00	15.00	15.00	15.00	15.00	12.00	<b>14.29</b>	<b>1.25</b>
<b>HBL</b>	23.00	30.00	36.00	39.00	41.00	42.00	42.00	<b>36.14</b>	<b>7.20</b>
<b>SBIBL</b>	36.00	42.00	43.00	50.00	56.00	56.00	56.00	<b>48.43</b>	<b>8.16</b>
<b>NBBL</b>	17.00	18.00	19.00	19.00	21.00	26.00	31.00	<b>21.57</b>	<b>5.09</b>
<b>EBL</b>	32.00	37.00	43.00	47.00	50.00	52.00	61.00	<b>46.00</b>	<b>9.70</b>
<b>BOKL</b>	28.00	37.00	41.00	45.00	50.00	50.00	56.00	<b>43.86</b>	<b>9.41</b>
<b>NCCBL</b>	17.00	17.00	17.00	22.00	23.00	23.00	24.00	<b>20.43</b>	<b>3.26</b>
<b>LUBL</b>	9.00	11.00	15.00	20.00	20.00	30.00	58.00	<b>23.29</b>	<b>16.81</b>
<b>MBL</b>	20.00	31.00	40.00	50.00	55.00	56.00	56.00	<b>44.67</b>	<b>15.41</b>
<b>KBL</b>	24.00	28.00	28.00	29.00	30.00	34.00	36.00	<b>29.86</b>	<b>4.02</b>
<b>LXBL</b>	19.00	25.00	30.00	31.00	34.00	37.00	46.00	<b>31.71</b>	<b>8.64</b>
<b>SIDBL</b>	29.00	38.00	41.00	42.00	43.00	46.00	53.00	<b>41.71</b>	<b>7.34</b>
<b>GIMEBL</b>	17.00	28.00	32.00	64.00	72.00	84.00	88.00	<b>55.00</b>	<b>28.87</b>
<b>CITBL</b>	26.00	30.00	32.00	33.00	34.00	42.00	54.00	<b>35.86</b>	<b>9.35</b>
<b>PCBL</b>	14.00	18.00	24.00	28.00	32.00	32.00	32.00	<b>25.71</b>	<b>7.34</b>
<b>SUNBL</b>	21.00	40.00	47.00	49.00	49.00	51.00	53.00	<b>44.29</b>	<b>11.06</b>
<b>ADBL</b>	243.00	243.00	243.00	240.00	241.00	241.00	246.00	<b>242.43</b>	<b>1.99</b>
<b>NBL</b>	92.00	101.00	104.00	116.00	116.00	120.00	126.00	<b>110.71</b>	<b>12.01</b>
<b>Average</b>	<b>36.85</b>	<b>43.45</b>	<b>47.32</b>	<b>51.60</b>	<b>53.85</b>	<b>56.55</b>	<b>61.55</b>		
<b>SD</b>	<b>51.50</b>	<b>50.59</b>	<b>51.26</b>	<b>49.39</b>	<b>49.30</b>	<b>49.01</b>	<b>49.43</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

The structure and pattern of number of branches for Nepalese commercial banks indicated that average number of branches is highest for ADBL (242.43 number), followed by NBL (110.71 number), GIMEBL (55 number), NABL (49.29 number), SBIBL (48.43 number), EBL (46 number), SUNBL (44.29 number), MBL (44 number), BOKL (43.86 number), NIBL (37.71 number), HBL (36.14 number), CITBL (35.86 number), LXBL (31.71 number), KBL (29.86 number), PCBL (25.71 number), LUBL (23.29 number), NBBL (21.57 number), NCCBL (20.43 number) and SCBL (14.29 number). The average number of branches computed across the

year increased over a period of time. In 2008, average number of branches is 36.85 number then increased to 61.55 number in 2015.

According to the table, number of branches is increased within the individual banks also. It increased from 38 to 55 number for NABL, from 19 to 46 number for NIBL, from 13 to 12 number for SCBL, from 23 to 42 number for HBL, from 36 to 56 number for SBIBL, from 17 to 31 number for NBBL, from 32 to 61 number for EBL, from 28 to 56 number for BOKL, from 17 to 24 number for NCCBL, from 9 to 56 number for LUBL, from 20 to 56 number for MBL, from 24 to 36 number for KBL, from 19 to 46 number for LXBL, from 29 to 53 number for SIDBL, from 17 to 58 number for GIMEBL, from 26 to 54 number for CITBL, from 14 to 32 number for PCBL, from 21 to 53 number for SUNBL, from 243 to 246 number for ADBL and from 92 to 126 number for NBL in 2015 over 2009. Thus, the variation in number of branches indicated by standard deviation (S. D.) is lowest for SCBL followed by ADBL, NCCBL, KBL, NBBL, NABL, HBL, SIDBL, PCBL, SBIBL, LXBL, CITBL, BOKL, NIBL, EBL, SUNBL, NBL, MBL, LUBL and GIMEBL

When the number of branches is compared over a period of time for individual banks, it is noticed that number of branches has increased in all of the selected commercial banks in recent years.

Figure 4.6 shows the trend of average number of branches of Nepalese commercial banks.

**Figure 4.6: Average number of branches of Nepalese commercial banks**

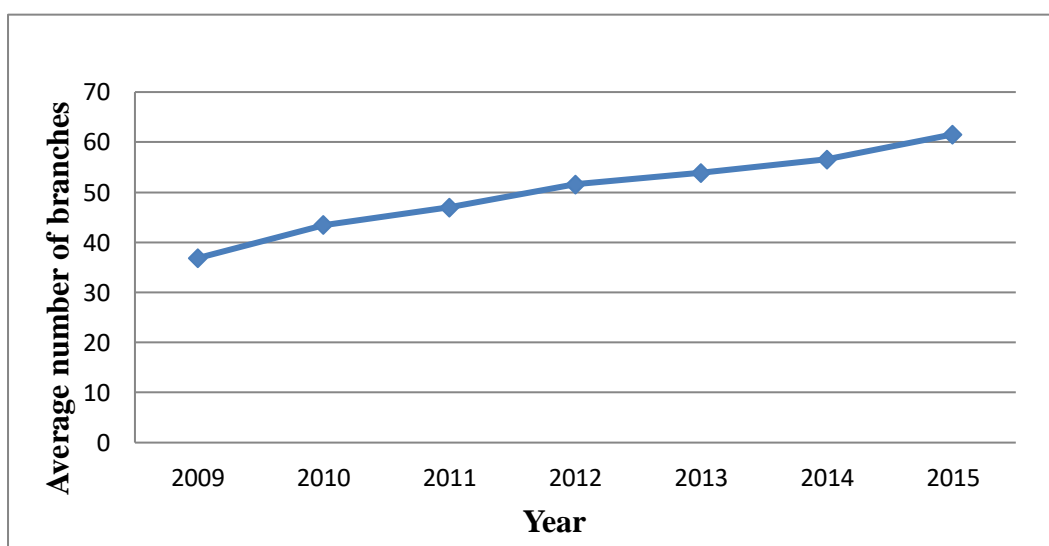


Figure 4.6 shows the comparative pattern of average number of branches of commercial banks from 2009 to 2015. The figure indicates that average number of branches for all selected banks is increased over the study period.

Table 4.7 shows the structure and pattern of ROA in Nepalese commercial banks.

**Table 4.7 Structure and pattern of ROA of Nepalese commercial banks for the period of 2009 to 2015 (in percentage)**

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	2.55	2.38	2.43	2.8	3.25	2.65	2.06	<b>2.59</b>	<b>0.37</b>
<b>NIBL</b>	1.68	2.00	2.06	1.89	2.55	2.1	1.77	<b>2.01</b>	<b>0.28</b>
<b>SCBL</b>	2.56	2.7	2.55	2.8	2.67	2.51	1.9	<b>2.53</b>	<b>0.29</b>
<b>HBL</b>	1.91	1.95	2.86	1.88	1.62	1.22	1.32	<b>1.82</b>	<b>0.54</b>
<b>SBIBL</b>	1.05	1.02	1.01	0.82	1.19	1.5	1.7	<b>1.18</b>	<b>0.31</b>
<b>NBBL</b>	3.9	8.29	3.58	4	3.25	2.28	2.7	<b>4.00</b>	<b>1.99</b>
<b>EBL</b>	1.73	1.98	1.99	1.93	2.21	2.17	1.56	<b>1.94</b>	<b>0.23</b>
<b>BOKL</b>	2.25	2.12	2.39	2.04	1.84	1.29	0.76	<b>1.81</b>	<b>0.58</b>
<b>NCCBL</b>	2	3.16	1.43	0.99	1.4	1.37	1.25	<b>1.66</b>	<b>0.73</b>
<b>LUBL</b>	4.4	3.75	4.38	2.13	1.11	1.16	1.48	<b>2.63</b>	<b>1.50</b>
<b>MBL</b>	0.7	0.63	0.03	0.04	0.5	1.08	1.21	<b>0.60</b>	<b>0.46</b>
<b>KBL</b>	1.41	2.33	1.09	0.97	0.96	0.95	0.88	<b>1.23</b>	<b>0.52</b>
<b>LXBL</b>	1.03	1.51	1.69	1.32	1.42	1.26	0.81	<b>1.29</b>	<b>0.30</b>
<b>SIDBL</b>	1.27	1.1	1.19	0.98	0.64	1.79	1.38	<b>1.19</b>	<b>0.36</b>
<b>GIMEBL</b>	1.3	1.21	1.25	1.06	1.31	1.58	1.41	<b>1.30</b>	<b>0.16</b>
<b>CITBL</b>	0.74	1.16	1.78	1.7	2.3	1.62	1.7	<b>1.57</b>	<b>0.50</b>
<b>PCBL</b>	1.06	1.58	1.65	1.21	1.43	1.64	1.67	<b>1.46</b>	<b>0.24</b>
<b>SUNBL</b>	0.51	1.15	0.65	0.66	1.16	1.25	2.03	<b>1.06</b>	<b>0.52</b>
<b>ADBL</b>	2.04	2.39	2.41	2.35	2.44	1.39	2.06	<b>2.15</b>	<b>0.38</b>
<b>NBL</b>	1.88	0.86	0.69	0.67	1.03	1.25	2.73	<b>1.30</b>	<b>0.75</b>
<b>Average</b>	<b>1.80</b>	<b>2.16</b>	<b>1.86</b>	<b>1.61</b>	<b>1.71</b>	<b>1.60</b>	<b>1.62</b>		
<b>SD</b>	<b>1.00</b>	<b>1.65</b>	<b>1.03</b>	<b>0.93</b>	<b>0.81</b>	<b>0.49</b>	<b>0.54</b>		

*Source: NRB Banking and Financial Statistics of NRB, 2015*

The structure and pattern of ROA for Nepalese commercial banks indicated that average ROA is highest for NBBL (4.00 percent), followed by LUBL (2.63 percent), NABL (2.59 percent), SCBL (2.53 percent), ADBL (2.15 percent), NIBL (2.01 percent), EBL (1.94 percent), HBL (1.82 percent), BOKL (1.81 percent), NCCBL (1.66 percent), CITBL (1.57 percent), PCBL (1.46 percent), GIMEBL (1.30 percent), NBL (1.30 percent), LXBL (1.29 percent), KBL (1.23 percent), SIDBL (1.19 percent), SBIBL (1.18 percent), SUNBL (1.06 percent) and MBL (0.60 percent). The average ROA computed across the year is fluctuated over a period of time. In 2009, average ROA is 1.80 percent then increased to 2.16 percent in 2010. Similarly, in 2011 average ROA is 1.86 percent then decreased to 1.62 percent in 2015.

According to the table, ROA is widely varies within the individual banks also. It increased from 1.68 to 1.77 percent for NIBL, from 1.05 to 1.7 percent for SBIBL, from 4.40 to 1.48 percent for LUBL, from 0.7 to 1.21 percent for MBL, from 1.27 to 1.38 percent for SIDBL, from 1.3 to 1.41 percent for GIMEBL, from 0.74 to 1.7 percent for CITBL, from 1.06 to 1.67 percent for PCBL, from 0.51 to 2.03 percent for SUNBL, from 2.04 to 2.06 percent for ADBL and from 1.88 to 2.73 percent for NBL in 2015 over 2009.

Similarly, ROA is decreased from 2.55 to 2.06 percent for NABL, from 2.56 to 1.90 percent for SCBL, from 1.91 to 1.32 percent for HBL, from 3.9 to 2.7 percent for NBBL, from 1.73 to 1.56 percent for EBL, from 2.25 to 0.76 percent for BOKL, from 2 to 1.25 percent for NCCBL, from 1.41 to 0.88 percent for KBL and from 1.03 to 0.81 percent for LXBL in 2015 over 2009.

Thus, the variation in ROA indicated by standard deviation (S. D.) is lowest for GIMEBL followed by EBL, PCBL, NIBL, SCBL, LXBL, SBIBL, SIDBL, NABL, ADBL, MBL, CITBL, KBL, SUNBL, HBL, BOKL, NCCBL, NBL, LUBL and NBBL.

When the average ROA is compared over a period of time for individual banks, it is noticed that ROA has fluctuated in all of the selected commercial banks in recent years.

Figure 4.7 shows the trend of average ROA of Nepalese commercial banks.

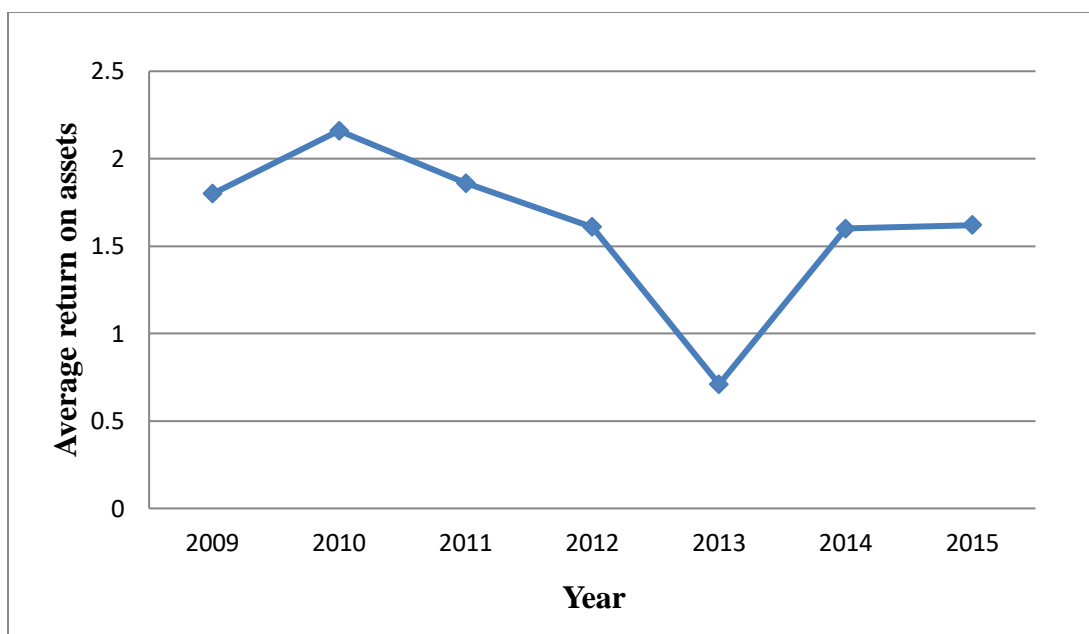
**Figure 4.7: Average ROA of Nepalese commercial banks**

Figure 4.7 shows the comparative pattern of average ROA of commercial banks from 2009 to 2015. The figure indicates that average ROA for all types of banks is fluctuated over the study period. The graph shows that ROA is highest in 2010 and it is lowest in 2013. The average ROA has decreased from 2.16 in year 2010 to 0.71 in year 2013 but it has increased from 1.6 in 2014 to 1.62 in 2015.

**Table 4.8 Pattern of money supply, population growth rate, consumer price index and gross domestic product**

Year	GDP (%)	Population Growth Rate (%)	Money Supply (%)	Consumer Price Index (CPI) (%)
2008/09	4.53	1.57	27.3	12.6
2009/10	4.82	1.54	14.1	9.6
2010/11	3.42	0.76	12.3	9.6
2011/12	4.78	1.51	22.7	8.3
2012/13	4.10	1.12	16.4	9.9
2013/14	5.40	1.47	19.1	9.1
2014/15	3.40	1.45	19.9	7.2

Sources: Central Bureau of Statistics, Nepal

The structure and pattern of macroeconomic variables reveals that the GDP is highest in 2013/14 and it is lowest in 2014/15. The GDP has decreased from 4.53 percent in

2008/09 to 3.42 percent in 2010/11. Then, GDP has increased from 4.78 percent in 2011/12 to 5.40 percent in 2013/14. Similarly, population growth rate is highest in 2008/09 and lowest in 2010/11. It has also decreased from 1.569 percent in 2008/09 to 0.76 percent in 2010/11. This table also shows that money supply growth rate is highest in 2008/09 where as it is lowest in 2010/11. The money supply growth rate has increased from 16.4 percent in 2012/13 to 19.9 percent in 2014/15. Likewise, this table also shows that the CPI is highest in 2008/09 where as it are lowest in 2015/15.

The following figure 4.8 shows GDP trend over the study period.

In the figure 4.8, the horizontal line shows the period from 2008/09 to 2014/15 and the vertical line shows the GDP in percentage. The graph shows that GDP is highest in 2014 and it is lowest in 2015. The GDP has increased from 4.53 percent in year 2009 to 4.82 percent in year 2010 but it has decreased to 3.42 percent in year 2011. Again GDP has increased to 4.78 percent in year 2012 but it has decreased to 4.1 percent in 2013. However, GDP has slightly increased to 5.4 percent in 2014. Overall, the GDP trend is fluctuated over the study period.

**Figure 4.8:GDP trend of Nepal**

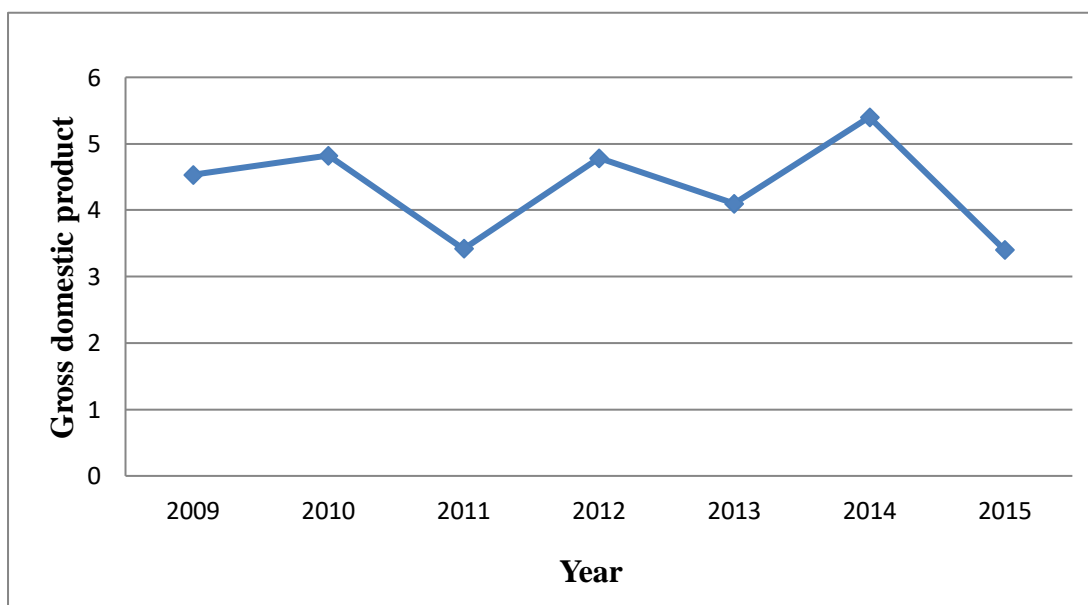
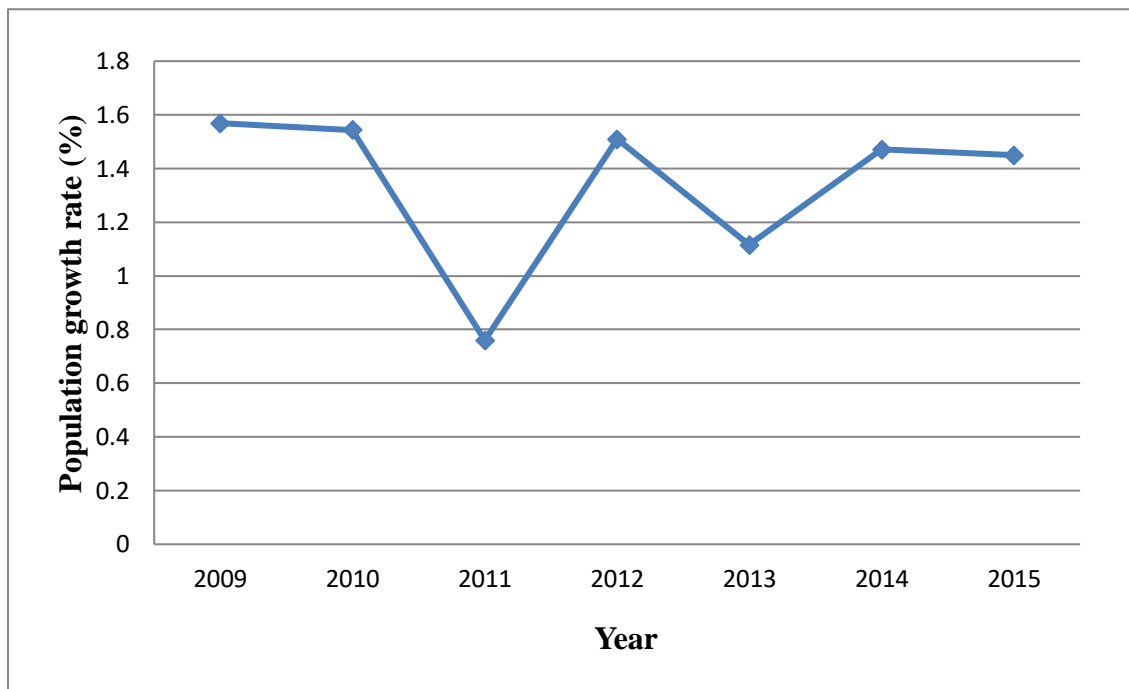


Figure 4.9 shows population growth rate trend over the study period.



Population growth rate is the rate at which the number of individuals in a population increases in a given time period, expressed as a fraction of the initial population. Specifically, population growth rate refers to the change in population over a unit time period, often expressed as a percentage of the number of individuals in the population at the beginning of that period.

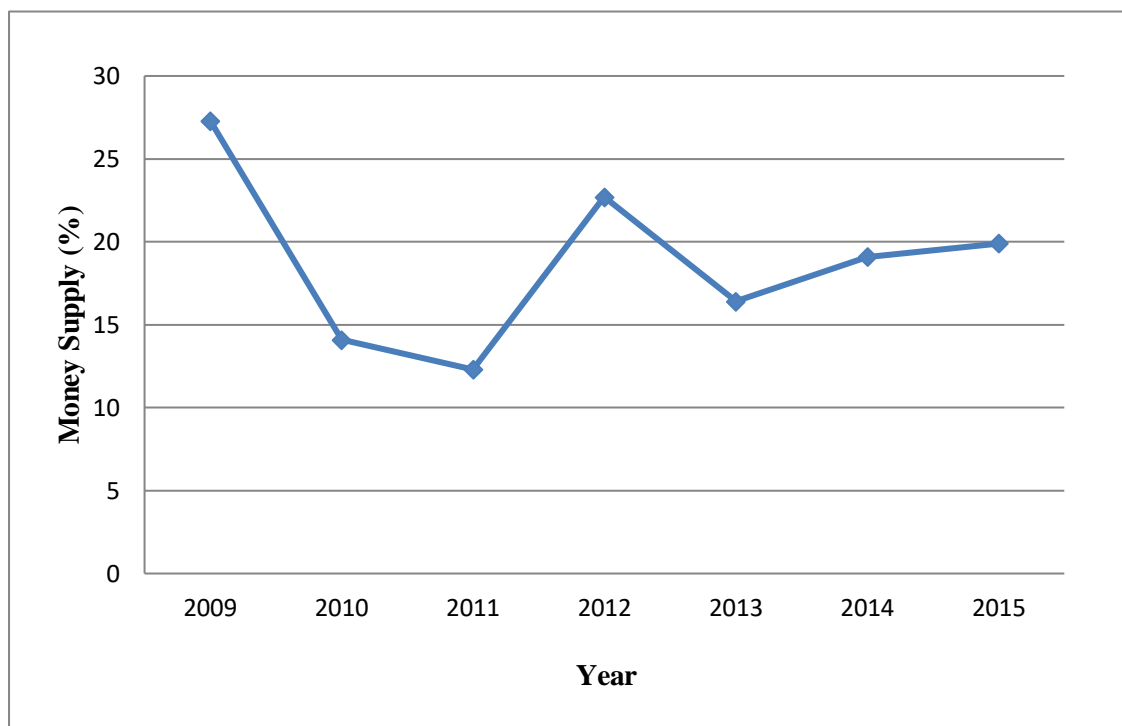
**Figure 4.9: Population growth rate trend of Nepal**



In the figure 4.9, the horizontal line shows the period from 2008/09 to 2014/15 and the vertical line shows the population growth rate in percentage. The graph shows that population growth rate is highest in 2009 and lowest in 2011. The graph shows that population growth rate has decreased from 1.569 percent in 2008/09 to 0.76 percent in 2010/11. Then after it started to increase and reached to 1.509 percent in 2011/12. The population growth rate trend is fluctuated over the study period.

The following figure 4.10 shows money supply trend over the study period.

Money supply is the total amount of [monetary assets](#) available in an [economy](#) at a specific time.

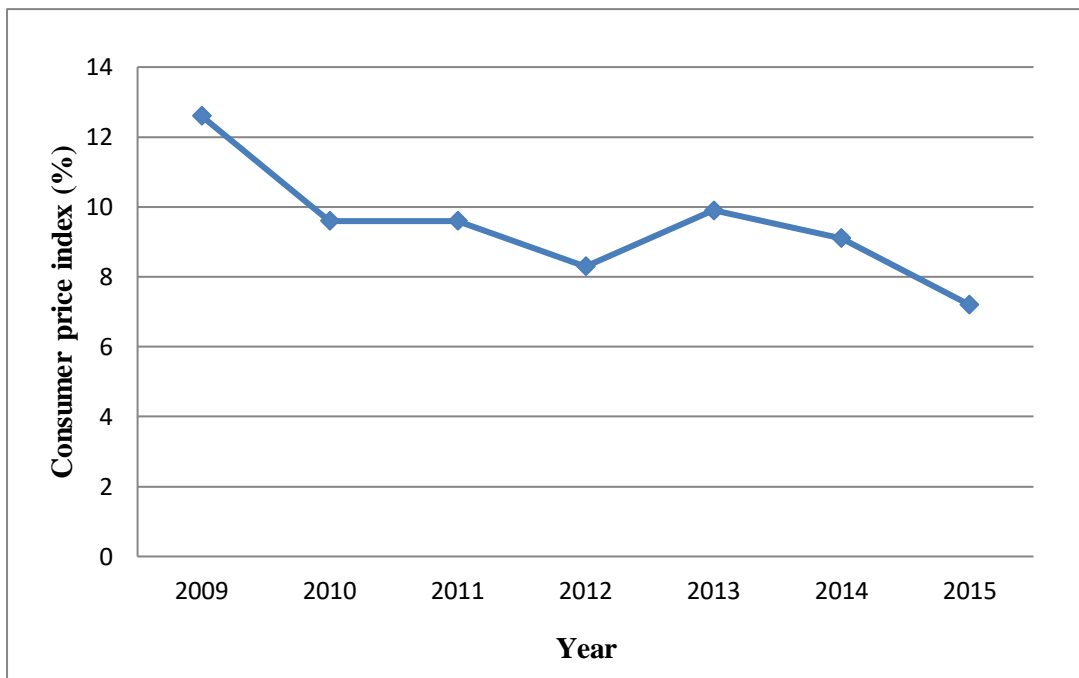
**Figure 4.10: Money supply trend of Nepal**

In the figure 4.10, the horizontal line shows the period from 2008/09 to 2014/15 and the vertical line shows the money supply in percentage. The graph shows that money supply is highest in 2009 and it is lowest in 2011. The money supply has decreased from 27.3 percent in year 2009 to 12.3 percent in year 2011 but it has increased to 22.7 percent in year 2012. Again money supply has decreased to 16.4 percent in year 2013 but it has increased to 19.1 percent in 2014. However, money supply has slightly increased to 19.9 percent in 2015. Overall, the money supply trend is fluctuated over the study period.

The following figure 4.11 shows consumer price index trend over the study period.

The consumer price index (CPI) is a measure that examines the [weighted average](#) of prices of a basket of [consumer goods](#) and services, such as transportation, food and medical care. It is calculated by taking [price changes](#) for each item in the predetermined [basket of goods](#) and averaging them. Changes in the CPI are used to assess price changes associated with the [cost of living](#); the CPI is one of the most frequently used statistics for identifying periods of [inflation](#) or [deflation](#).

**Figure 4.11: Consumer price index trend of Nepal**



In the figure 4.11 the horizontal line shows the period from 2008/09 to 2014/15 and the vertical line shows the Consumer price index (CPI) in percentage. The graph shows that CPI has decreased from 12.6 percent in 2008/09 to 7.2 percent in 2014/15. The CPI trend is downward sloping indicating the continuous decrease in CPI.

#### **4.2 Descriptive statistics**

The descriptive statistics used in this study consists of mean, median, standard deviation, minimum and maximum values associated with variables under consideration. Table 4.9 summarizes the descriptive statistics for the commercial banks used in this study during the period 2008/09 through 2014/15 for 20 commercial banks of Nepal.

**Table 4.9: Descriptive statistics for all selected commercial banks**

<b>Variables</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
SAVDEP	1.91	46.52	12.88	9.96
FIXDEP	0.81	38.18	10.98	6.65
CURDEP	0.11	17.70	3.79	4.17
NOB	9.00	246.00	50.11	49.41
SDR	1.00	6.50	2.50	1.22
FDR	1.50	11.50	4.37	2.20
ROA	0.0	8.29	1.72	1.01
GDP	3.40	5.40	4.35	0.70
PGR	0.76	1.57	1.35	0.28
MS	12.30	27.30	18.83	4.78
CPI	7.20	12.60	9.47	1.55

*Source: SPSS output result outcome*

The result shows the descriptive statistics of dependent and independent variables for the selected commercial banks. Clearly, saving deposit ranges from a minimum of Rs. 1.91 billion to a maximum of Rs. 46.52 billion, leading to an average Rs. 12.88 billion. Likewise, the fixed deposit ranges from a minimum of Rs. 0.81 billion to a maximum of Rs. 38.18 billion, leading to an average Rs. 10.98 billion while the current deposit varies from a minimum of Rs. 0.11 billion to a maximum Rs. 17.70 billion, leading to an average of Rs. 3.79 billion.

The number of branches ranges from a minimum of 9 numbers to a maximum of 246 numbers, leading to an average 50.11 numbers while the saving deposit rate varies from a minimum of 1.00 percent to a maximum of 6.50 percent, leading to an average 2.50 percent. Similarly, fixed deposit rate varies from a minimum of 1.50 percent to a maximum of 11.50 percent, leading to an average 4.37 percent. Likewise, the ROA ranges from a minimum of 0 percent to a maximum of 8.29 percent, leading to an average 1.72 percent. The GDP varies from a minimum of 3.40 percent to a maximum of 5.40 percent, leading to an average 4.35 percent. Similarly, the population growth rate ranges from a minimum of 0.76 percent to a maximum of 1.57 percent, leading to an average 1.35 percent. The money supply varies from a minimum of 12.30 percent

to a maximum of 27.30 percent, leading to an average 18.83 percent. Likewise, the CPI ranges from a minimum of 7.20 percent to a maximum of 12.60 percent, leading to an average 9.47 percent. The money supply varies from a minimum of 12.30 percent to a maximum of 27.30 percent, leading to an average 18.83 percent.

### **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 in Table 4.10. More specifically, it shows the correlation coefficients of dependent and independent variables for joint venture banks.

Table 4.10 shows the Pearson correlation coefficients for dependent and independent variables for selected commercial banks. The result reveals that saving deposit rate is negatively correlated to saving deposit, which indicates that lower the saving deposit rate, higher would be the saving deposit. However, the number of branches is positively correlated to saving deposit. This indicates that higher the number of branches, higher would be the saving deposit. Similarly, the ROA is positively correlated to saving deposit. It states that increase in ROA leads to increase in saving deposit. The GDP is negatively correlated to saving deposit which indicates that lower the GDP, higher would be the saving deposit. On the other hand, there is positive relationship between population growth rate and saving deposit. It reveals that increase in population growth rate leads to increase in saving deposit. Likewise, the money supply has positive relationship with saving deposit indicating that increase in money supply leads to increase in saving deposit. The consumer price index has negative relationship with saving deposit. It states that increase in consumer price index leads to decrease in saving deposit.

**Table 4.10: Pearson correlation for selected commercial banks**

This results are based on panel data of 20 banks with 140 observations for the period of 2008/09 to 2014/15, by using linear regression model.

Variables	SAVDEP	FIXDEP	CURDEP	SDR	FDR	NOB	ROA	GDP	PGR	MS	CPI
SAVDEP	1.00										
FIXDEP	0.37**	1.00									
CURDEP	0.84**	0.22**	1.00								
SDR	-0.36**	-0.11	-0.60	1.00							
FDR	-0.54	-0.30*	-0.50	0.18	1.00						
NOB	0.49**	0.41**	0.27**	-0.05	0.18	1.00					
ROA	0.06	-0.13	0.14	-0.12	0.52	-0.01	1.00				
GDP	-0.06	-0.11	-0.04	-0.04	-0.20	-0.03	-0.01	1.00			
PGR	0.08	-0.05	0.02	-0.33**	0.12	-0.01	-0.05	0.19*	1.00		
MS	0.06	-0.10	-0.01	-0.31**	0.23	-0.03	-0.18*	0.47**	0.66**	1.00	
CPI	-0.24**	-0.37**	-0.16	-0.11	0.26	-0.13	-0.04	0.45**	0.03	0.35**	1.00

\*' sign indicates that correlation is significant at 1 percent level and '\*\*' sign indicates that correlation is significant at 5 percent level

The fixed deposit rate is negatively related to fixed deposit. It shows that increase in fixed deposit rate leads to decrease in fixed deposit. However, number of branches is positively correlated to fixed deposit. It reveals that increase in number of branches leads to increase in fixed deposit. Similarly, ROA is negatively correlated to fixed deposit indicating that increase in ROA leads to decrease in fixed deposit. On the other hand, population growth rate has negative relationship with fixed deposit proving that increase in population growth rate leads to decrease in fixed deposit. Likewise, the GDP is negatively correlated to fixed deposit which indicates that lower the GDP, higher would be the fixed deposit. The money supply has negative relationship with fixed deposit indicating that increase in money supply leads to decrease in fixed deposit. The consumer price index has negative relationship with fixed deposit. It states that increase in consumer price index leads to decrease in fixed deposit.

The number of branches is positively correlated to current deposit. It reveals that increase in number of branches leads to increase in current deposit. Similarly, ROA is

positively correlated to current deposit indicating that increase in ROA leads to increase in current deposit. On the other hand, the GDP is negatively correlated to current deposit which indicates that lower the GDP, higher would be the current deposit. Likewise, population growth rate has positive relationship with current deposit proving that increase in population growth rate leads to increase in current deposit. On the other hand, the money supply has negative relationship with current deposit indicating that increase in money supply leads to decrease in current deposit. The consumer price index has negative relationship with current deposit. It states that increase in consumer price index leads to decrease in current deposit.

#### **4.4 Regression analysis**

Regression analysis shows the change in the typical value of the dependent variable when any one of the independent variables is varied, while the other independent variables are held fixed. Most commonly, regression analysis estimates the conditional expectation of the dependent variable given the independent variables. Having indicated the Pearson correlation coefficients, the regression analysis has been conducted and the results are presented in Table 4.11. More specifically, it shows the regression results of saving deposit for selected commercial banks.

Table 4.11 shows the regression result in terms of saving deposit for selected commercial banks. The result reveals that beta coefficient for saving deposit rate is negative. This indicates that an increase in saving deposit rate leads to decrease in saving deposit. This finding is consistent with the findings of Finger and Hesse (2009). Similarly, the beta coefficient is negative for GDP. It states that higher the GDP, lower would be the saving deposit. This finding is contradicts with the findings of Orji Anthony (2009). Likewise, the beta coefficient for CPI is also negative and it is significant at 1% level of significance. This indicates that higher the CPI, lower would be the saving deposit.

**Table 4.11: Estimated regression results of SDR, NOB, ROA, GDP, PGR, MS and CPI on saving deposit**

Model	Intercept	Regression coefficients of							Adj. R <sup>2</sup>	SEE	F
		SDR	NOB	ROA	GDP	PGR	MS	CPI			
1	26.46 (13.40)**	-4.72 (-7.38)**							0.28	8.47	54.42
2	7.87 (7.52)**		0.10 (6.71)**						0.24	8.68	44.96
3	11.78 (7.02)**			0.64 (0.76)					0.09	9.98	2.57
4	16.28 (3.01)**				-0.78 (-0.64)				0.10	9.98	2.41
5	8.96 (2.13)**					2.92 (0.96)			0.09	9.96	2.92
6	10.51 (3.06)**						0.13 (0.71)		0.08	9.97	2.51
7	27.28 (5.34)**							-1.52 (-2.86)**	0.15	9.71	8.17
8	21.01 (9.67)**	-2.59 (-8.35)**	0.09 (7.79)**	0.05 (0.08)					0.49	7.09	46.15
9	12.98 (2.16)**		0.09 (6.46)**	0.64 (0.88)		3.37 (2.01)*		-1.11 (-2.36)**	0.27	8.53	16.63
10	37.32 (7.37)**	-2.75 (-9.33)**	0.09 (7.57)**		-1.19 (-0.23)			-1.51 (-3.95)**	0.55	6.70	42.58

\*' sign indicates that correlation is significant at 1 percent level and '\*\*' sign indicates that correlation is significant at 5 percent level



The result of regression also reveals that the beta coefficient for number of branches, ROA, population growth rate and money supply are positive. This indicates that an increase in number of branches leads to increase in saving deposit. This finding is consistent with the findings of Chu and Huan (1998). Its beta coefficient is also significant. Similarly, the positive beta coefficients of ROA indicate that higher the ROA of bank, higher would be the saving deposit. This finding is consistent with the findings of Heral and Heiko (2009). Likewise, the positive beta coefficients of money supply indicate that higher the money supply, higher would be the saving deposit. However, the beta coefficient is not significant. Similarly, the positive beta coefficient of population growth rate indicates that higher the population growth rate, higher would be saving deposit and this finding is consistent with the findings of Agrawal (2001).

**Table 4.12: Estimated regression results of FDR, NOB, ROA, GDP, PGR, MS and CPI on FIXDEP**

Model	Intercept	Regression coefficients of							Adj. R <sup>2</sup>	SEE	F
		FDR	NOB	ROA	GDP	PGR	MS	CPI			
1	12.84 (8.31)**	-0.37 (-2.01)*							0.15	6.63	1.67
2	8.21 (11.19)**		0.05 (5.31)**						0.16	6.08	28.13
3	12.42 (11.16)**			-0.84 (-2.10)*					0.13	6.61	2.25
4	15.89 (4.36)**				-1.04 (-2.21)*				0.12	6.63	1.70
5	12.60 (4.58)**					-1.21 (-0.59)			0.05	6.66	0.35
6	13.55 (5.93)**						-0.14 (-2.01)*		0.11	6.63	1.35
7	26.10							-1.60	0.13	6.19	22.17

	(8.02)**						(-4.71)**				
8	13.79	-0.44	0.06				-0.18	0.17	6.04	10.76	
	(4.60)**	(-2.01)*	(5.20)**				(-2.02)*				
9	36.69	-0.73		-1.15		-2.87		-1.72	0.18	6.03	8.45
	(7.36)**	(-2.59)**		(-2.29)**		(-2.02)*		(-5.15)**			
10	30.94	-0.69	0.05	-1.13	-0.65	-3.71		-1.57	0.29	5.59	10.67
	(6.49)**	(-2.52)*	(4.90)**	(-3.27)**	(-0.70)	(-2.20)*		(-4.84)**			

\*' sign indicates that correlation is significant at 1 percent level and '\*\*' sign indicates that correlation is significant at 5 percent level

Table 4.12 shows the regression result in terms of fixed deposit for selected commercial banks. The result reveals that a beta coefficient for number of branches is positive. This indicates that an increase in number of branches leads to increase in fixed deposit. This finding is consistent with the findings of Sufian and Habibullah (2013). However, the beta coefficient is significant at 1% level of significance.

The result of regression also reveals that the beta coefficient for deposit rate, ROA, GDP, population growth rate, CPI and money supply are negative. This indicates that an increase in deposit rate leads to decrease in fixed deposit. This finding is consistent with the findings of Mujari and Younus (2009). Its beta coefficient is also significant. Similarly, the negative beta coefficient of ROA indicates that higher the ROA of bank, lower would be the fixed deposit. Likewise, the result also reveals that an increase in GDP leads to decrease in fixed deposit. Similarly, the negative beta coefficient of money supply indicates that higher the money supply, lower would be the fixed deposit. However, the beta coefficient is significant at 1% level of significance. This finding is contradicts with the findings of Ostadi and Sharlak (2014). Likewise, the negative beta coefficient of population growth rate indicates that higher the population growth rate, lower would be fixed deposit.

Table 4.13 shows the regression result in terms of current deposit for selected commercial banks. The result reveals that beta coefficients for money supply, GDP and CPI are negative the negative beta coefficient of CPI indicates that higher the CPI, lower would be the current deposit. However, the beta coefficient is significant at 1% level of significance. This finding is contradicts with the findings of Obadan

and Odusola (2001). Likewise, the negative beta coefficient of money supply indicates that higher the money supply, lower would be the current deposit. Likewise, the result also reveals that an increase in GDP leads to decrease in current deposit.

The result of regression also reveals that the beta coefficient for number of branches, ROA and population growth rate are positive. This indicates that an increase in number of branches leads to increase in current deposit. This finding is consistent with the findings of Syamsulhakim (2004). Its beta coefficient is also significant at 1% level of significance. Similarly, the positive beta coefficient of ROA indicates that higher the ROA of bank, higher would be the current deposit. This result is consistent with the findings of Erna and Syamsulhakim (2004). Likewise, the positive beta coefficients of population growth rate indicates that higher the population growth rate, higher would be current deposit and this finding is consistent with the findings of Varman (2005).

**Table 4.13: Estimated regression results of NOB, ROA, GDP, PGR, MS and CPI on current deposit**

Model	Intercept	Regression coefficients of						Adj. R <sup>2</sup>	SEE	F
		NOB	ROA	GDP	PGR	MS	CPI			
1	2.66 (5.47)**	0.04 (3.28)**					0.27	4.03	10.73	
2	2.76 (3.96)**		0.61 (2.09)*				0.22	4.14	5.94	
3	-4.91 (-2.90)**			-0.26 (-0.51)			0.08	4.18	0.30	
4	3.42 (2.10)*				0.27 (0.21)		0.01	4.18	0.05	
5	-4.01 (-3.78)**					-0.01 (-0.15)	0.02	4.18	0.03	
6	-7.89 (-3.64)**						-0.43 0.31	4.13	6.69	

7	-16.50	0.02				-0.14	-0.41	0.47	3.04	31.36
	(-8.05)**	(3.59)**				(-2.34)*	(-2.33)*			
8	-14.67		0.12	-0.41	2.42	-0.12		0.39	3.24	19.21
	(-6.50)**		(2.43) *	(-0.78)	(2.30)*	(-2.08)*				
9	-18.31					-0.14	-0.49	0.43	3.16	35.32
	(-8.91)**					(-2.27)*	(-2.96)**			

\*' sign indicates that correlation is significant at 1 percent level and '\*\*' sign indicates that correlation is significant at 5 percent level

#### 4.5 Major Findings

This study has mainly focused on determinants of Nepalese commercial banks deposit. This study used banks deposit variables: saving deposit rate, fixed deposit rate, number of branches and ROA. The macroeconomic variables used in the study are GDP, money supply, population growth rate and CPI. The dependent variable financial performances are saving deposit, fixed deposit and current deposit. The result acknowledged in this study is based on the selected 20 Nepalese commercial banks.

The performance of the selected companies has been observed by types of deposit. The overall result has indicated the positive relationship with number of branches, ROA and population growth rate. However, saving deposit rate, fixed deposit rate, GDP, money supply and CPI have negative relationship with the bank's deposit.

The result shows that NBL has highest average saving deposit (Rs. 33.55 Billion), SBIBL has highest fixed deposit (Rs. 27.10 Billion) and NBL has highest current deposit (Rs. 12.91 Billion) among the selected commercial banks over the study period. Similarly, the saving deposit rate is highest for SUNBL (3.34 percent) among the selected commercial banks. The average number of branches is highest for ADBL (242.43 number) and average ROA is highest for NBBL (4.00 percent). The average deposit rate and ROA have been fluctuated over the study period whereas saving deposit, current deposit, fixed deposit and number of branches have been increased over the study period.

The descriptive statistics indicate saving deposit ranges from a minimum of Rs. 1.91 billion to a maximum of Rs. 46.52 billion. Likewise, the fixed deposit ranges from a

minimum value of Rs. 0.81 billion to a maximum value of Rs. 38.18 billion. The number of branches ranges from a minimum of 9 number to a maximum value of 246 number. The saving deposit rate varies from a minimum of 1.00 percent to a maximum of 6.50 percent and fixed deposit rate varies from a minimum of 1.50 percent to a maximum of 11.50 percent. Likewise, the ROA ranges from a minimum of 0 percent to a maximum of 8.29 percent. The GDP varies from a minimum of 3.40 percent to a maximum of 5.40 percent. Similarly, the population growth rate ranges from a minimum of 0.76 percent to a maximum of 1.57 percent. The money supply varies from a minimum of 12.30 percent to a maximum of 27.30 percent. The CPI varies from a minimum of 7.20 percent to a maximum of 12.60 percent.

The correlation matrix of selected commercial banks shows that saving deposit and fixed deposit are negatively correlated to saving deposit rate and fixed deposit rate. However, the saving deposit, fixed deposit and current are positively correlated number of branches. Similarly, the saving deposit, fixed deposit and current are negatively related to consumer price index. Likewise, saving deposit and current deposit is positively related to ROA while current deposit whereas fixed deposit is negatively related to ROA. Saving deposit, fixed deposit and current deposit are negatively related to GDP. Likewise, saving deposit and current deposit is positively related to population growth rate. However, the fixed deposit is negatively related to population growth rate. Fixed deposit and current deposit are negatively related to money supply. However, saving deposit is positively related to money supply.

Regression analysis revealed that deposit rate, money supply and CPI has negative and significant impact on saving deposit, fixed deposit and current deposit. The ROA and population growth rate have positive and significant impact on saving deposit and current deposit, whereas it is negatively related to fixed deposit. Likewise, number of branches has positive impact on return on saving deposit, fixed deposit and current deposit. Money supply has positive impact on saving deposit whereas it is negatively related to fixed deposit and current deposit.

## CHAPTER V

### CONCLUSION

This chapter provides the brief summary of the entire study and highlights the major findings of the study. In addition, the major conclusions are discussed in separate section of this chapter which is followed by some implications and the recommendations regarding the determinants of deposit of Nepalese commercial banks. Finally, the chapter ends with the scope of the future research in the same field.

#### 5.1 Summary

Bank deposits come from the depositors who are investing their money in commercial banks. So as to undertake this process the money should be available first. Deposit is the most liquid money that is found in the treasury of commercial banks and which is ready to be borrowed by a body in need of the fund. A deposit of the commercial bank may be affected by different factors. Since a deposit is most useful asset of the bank that is important to find out the factors affecting it and determining the relationship between them (Adem, 2015). According to Mohammad and Mahdi (2010), financial resources of banking system are naturally provided form people's deposit. Thus the amount of deposit a commercial bank should have at hand enough to make the bank involve in the market and to satisfy the financial needs of its customers. Given this general facts, the bank is expected deposit. Managing deposits is not possible without knowing and controlling the factors affecting it.

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).

The major objective of the study is to analyze the determinants of bank deposit in context of Nepalese commercial banks. The specific objectives of the study are a. to analyze the pattern and structure of saving deposits, current deposits, fixed deposits, saving deposit rate, fixed deposit rate, number of branches and return on assets of Nepalese commercial banks, b. to determine the relationship of number of branches, ROA, saving deposit rate and fixed deposit rate with the deposits of Nepalese

commercial banks, c. to examine the effect of gross domestic product, money supply, consumer price index and population growth rate on bank deposits of Nepalese commercial banks and d. to identify the most significant factors determining the bank deposits of Nepalese commercial banks.

Chu and Huan (1998) suggested that banks with large branch networks are able to attract more deposits, which is a cheaper source of funds. On the other hand, the smaller banking groups with smaller deposits base might have to resort to purchasing funds in the inter-bank market, which is costlier (Sufian and Habibullah, 2012). Finger and Hesse (2009) also mentioned interest as one of the determining factor for commercial banks deposits and found that there is opposite correlation between deposit and interest rate. Similarly, Athukorala and Sen (2003) found positive relationship between inflation and bank deposit. Agrawal (2001) found that high savings in Asia are found to be due to increasing shares of independent population, and some special institutional features, such as the high central provident fund rates in Singapore. Haron and Azmi (2006) found that there is positive relationship between money supply and bank deposits. In context of Nepal, Bhatta (2004) showed that deposit rate and deposit amount have positive and significance relation to each other. Bhandari (2011) concluded that there is positive relationship between deposit and economic growth in Nepal. Khaniya (2014) revealed that real interest rate, population growth rate, GDP growth rate and inflation have significant impact on bank deposit.

The study is based on the secondary data of 20 Nepalese commercial banks for the period of 2008/09 -2014/15 with a total of 140 observations. Data has been extracted from the annual reports of commercial banks and bank supervision report. This study has employed descriptive research design and causal comparative research design to deal with issues associated with the determinants of deposit of Nepalese commercial banks. The relationship between dependent and independent variables are analyzed in single step and multi-step regression analysis. Saving deposit, fixed deposit and current deposit are the dependent variables, whereas saving deposit rate, fixed deposit rate, number of branches, ROA, GDP, population growth rate, money supply and CPI are the independent variables.

Based on the analysis of data, the major findings are summarized as under:

1. The structure and pattern analysis of saving deposit shows that NBL has highest average saving deposit (Rs. 33.55 Billion) and lowest for LUBL (Rs. 3.01 Billion). It has been found that saving deposit has increased in the majority of the selected commercial banks during the study period.
2. The average fixed deposit is highest for SBIBL(Rs. 27.10 Billion) and lowest for LUBL (Rs. 4.76 Billion). It has been found that fixed deposit has increased in the majority of the selected commercial banks during the study period.
3. The average current deposit is highest for NBL (Rs. 12.91 Billion) and lowest for LUBL (Rs. 0.42 Billion). It has been found that current deposit has increased in the majority of the selected commercial banks during the study period.
4. The average saving deposit rate is highest for SUNBL(3.34 percent) and lowest for SCBL (1.29 percent). It has been found that saving deposit rate has decreased in the majority of the selected commercial banks during the study period.
5. The average fixed deposit rate is highest for NABL(6.00 percent) and lowest for NBL (2.36 percent). It has been found that fixed deposit rate has decreased in the majority of the selected commercial banks during the study period.
6. The average number of branches is highest for ADBL (242.43 number) and lowest for SCBL (14.29 number). It has been found that number of branches has increased in the majority of the selected commercial banks during the study period.
7. The average ROA is highest for NBBL(4.00 percent) and lowest for MBL (0.60 percent). It has been found that ROA has fluctuated in the majority of the selected commercial banks during the study period.
8. The pattern of macroeconomic variables reveals that the GDP is highest in 2013/14 and it is lowest in 2014/15 and population growth rate is highest in 2008/09 and lowest in 2010/11.
9. Similarly, money supply growth rate is highest in 2008/09 where as it is lowest in 2010/11 and CPI is highest in 2008/09 where as it are lowest in 2015/15.
10. The descriptive analysis shows that average saving deposit, fixed deposit and current deposit of selected commercial banks are Rs. 12.88 billion, Rs. 6.65 billion and Rs. 3.79 billion respectively.



11. The analysis also indicates that the average of saving deposit rate, fixed deposit rate and number of branches for selected commercial banks are 2.50 percent, 4.37 percent and 50.11 numbers respectively.
12. Similarly, the analysis denotes that the mean of ROA for selected commercial banks is 1.72 percent.
13. Additionally, the analysis denotes that the mean of population growth rate and money supply for Nepal are 1.35 percent and 18.83 percent respectively.
14. The analysis denotes that the mean consumer price index and GDP for Nepal are 0.47 percent and 4.35 percent respectively.
15. The correlation analysis reveals that saving deposit and fixed deposit are negatively correlated to saving deposit rate and fixed deposit rate. However, the saving deposit, fixed deposit and current are positively correlated to number of branches.
16. Similarly, the result shows that the saving deposit, fixed deposit and current are negatively correlated to consumer price index.
17. Likewise, saving deposit and current deposit is positively related to ROA while current deposit whereas fixed deposit is negatively related to ROA.
18. The correlation analysis also shows that saving deposit, fixed deposit and current deposit are negatively correlated to GDP.
19. Likewise, saving deposit and current deposit is positively related to population growth rate. However, the fixed deposit is negatively related to population growth rate.
20. Fixed deposit and current deposit are negatively correlated to money supply. However, saving deposit is positively related to money supply.
21. The regression result reveals that the deposit rate has negative impact on banks saving deposit and fixed deposit which indicates higher the deposit rate, lower would be the saving deposit and fixed deposit.
22. Likewise, number of branches has positive impact on banks deposit which indicates an increase in number of branches leads to increase in banks deposit.
23. Similarly, regression result also reveals that the ROA has positive and significant impact on saving deposit and current deposit which indicates that higher the ROA, higher would be the saving and current deposit. Whereas it is negatively related to fixed deposit. It indicates that higher the ROA, lower would be fixed deposit.

24. In addition, population growth rate has positive and significant impact on saving deposit and current deposit which indicates that higher the population growth rate, higher would be the saving and current deposit. Whereas, population growth rate is negatively related to fixed deposit. It indicates that the higher population growth rate, lower would be the fixed deposit.
25. The negative beta coefficient of GDP concludes that higher the GDP, lower would be the saving deposit, fixed deposit and current deposit.
26. Likewise, number of branches has positive impact on saving deposit, fixed deposit and current deposit. It indicates that higher the number of branches, higher would be the saving deposit, fixed deposit and current deposit.
27. The positive beta coefficient of money supply concludes that higher the money supply, higher would be the saving deposit. Whereas, money supply has a negative impact on fixed deposit and current deposit which indicates that higher the money supply, lower would be the fixed deposit and current deposit.
28. Additionally, the consumer price index has negative impact on saving deposit, current deposit and fixed deposit showing that the higher the consumer price index, lower would be the saving deposit, current deposit and fixed deposit.

## **5.2 Conclusion**

The major conclusion of the study is saving deposit rate, fixed deposit rate, number of branches and CPI are the major factors affecting banks performance in Nepalese commercial banks. The results reveal that deposit rate and CPI have negative impact on banks deposit. This indicates that increase in deposit rate and CPI leads to decrease in saving deposit and fixed deposit. Similarly, the result also reveals that number of branches has positive impact on bank deposit. This indicates that increase in number of branches leads to increase in banks deposit.

Furthermore, the study also shows that ROA and population growth rate have positive impact on saving deposit and current deposit which indicates that higher the ROA and population growth rate, higher would be the saving deposit and current deposit. However, ROA and population growth rate have negative impact on fixed deposit. It indicates that higher the ROA and population growth rate, lower would be the fixed deposit. Similarly, GDP also has negative impact on saving deposit, fixed

deposit and current deposit which indicates that higher the GDP, lower would be the saving deposit, fixed deposit and current deposit.

This study also concludes that money supply has positive impact on saving deposit of the Nepalese commercial banks. This indicates that higher the money supply, higher would be the saving deposit. However, result shows that money supply has negative and significant impact on fixed deposit and current deposit. This indicates that higher the money supply, lower would be the fixed deposit and current deposit.

### **5.3 Implications**

Based on the findings of the study, the following implications have been shown below:

1. The study observed a negative relationship of deposit rate with saving deposit and fixed deposit. Hence, the commercial banks willing to increase saving deposit and fixed deposit should decrease saving deposit rate and fixed deposit rate.
2. The study suggests that banks should focus to increase the number of branches to increase the saving deposit, fixed deposit and current deposit as result indicates the positive relationship between number of branches and banks deposit.
3. The study revealed that there is a negative relationship of the ROA with saving deposit and current deposit. Hence, the banks willing to increase saving deposit and current deposit should decrease the ROA.
4. The study also found that there is positive relationship of ROA with fixed deposit. Hence, the banks willing to increase fixed deposit should increase ROA.
5. The study observed negative relationship of money supply with current deposits and fixed deposits. Hence, banks willing to increase the current deposits and fixed deposits should use the tools of money supply to control the money supply.
6. Similarly, the study observed that there is positive relationship of money supply with saving deposit. Hence banks willing to increase saving deposit should use tools of money supply to increase money supply.

#### **5.4 Implications for future research**

1. 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.
2. 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.
3. There are other microeconomic variables (exchange rate, national income and unemployment rate) as well as deposit variable (total deposit, women deposit, children deposit, stock return, lending rate) that bring change in bank performance. Thus, the future study can include these variables that will give additional findings in the study.
4. 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.
5. Similarly, future studies can use some advance statistical tools. For example, the future studies can use non-linear statistical tools and bidirectional causality tools.

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## Appendix I

### Structure and pattern of saving deposits of Nepalese commercial banks for the period of 2009 to 2015 (Rs in Billion)

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	14.62	13.78	14.29	17.99	23.34	32.60	42.72	<b>22.76</b>	<b>11.08</b>
<b>NIBL</b>	17.07	14.32	13.55	17.28	19.93	25.02	31.73	<b>19.84</b>	<b>6.49</b>
<b>SCBL</b>	19.19	12.43	11.62	15.55	17.89	19.53	23.48	<b>15.10</b>	<b>7.27</b>
<b>HBL</b>	20.06	16.29	15.99	21.92	26.48	32.84	38.73	<b>24.62</b>	<b>8.58</b>
<b>SBIBL</b>	5.82	7.35	8.08	10.34	12.90	16.61	21.49	<b>11.80</b>	<b>5.62</b>
<b>NBBL</b>	7.10	5.89	5.65	6.69	7.33	8.93	9.58	<b>7.31</b>	<b>1.47</b>
<b>EBL</b>	14.78	13.36	13.04	17.27	21.07	26.49	32.60	<b>19.80</b>	<b>7.41</b>
<b>BOKL</b>	7.26	6.72	6.61	8.12	9.15	10.96	12.69	<b>8.79</b>	<b>2.30</b>
<b>NCCBL</b>	5.46	4.93	4.92	5.42	5.75	7.18	8.32	<b>6.00</b>	<b>1.27</b>
<b>LUBL</b>	3.21	2.11	2.04	2.41	2.84	3.94	4.57	<b>3.02</b>	<b>0.96</b>
<b>MBL</b>	6.84	6.60	5.62	8.84	10.70	14.29	17.86	<b>10.11</b>	<b>4.52</b>
<b>KBL</b>	4.15	5.11	6.55	5.89	6.82	7.23	8.01	<b>6.25</b>	<b>1.31</b>
<b>LXBL</b>	3.46	3.68	3.22	4.40	5.00	6.31	8.12	<b>4.89</b>	<b>1.78</b>
<b>SIDBL</b>	3.47	2.96	3.17	5.67	33.81	9.52	12.42	<b>10.15</b>	<b>11.03</b>
<b>GIMEBL</b>	3.40	4.35	3.86	11.33	14.98	20.40	25.11	<b>11.92</b>	<b>8.66</b>
<b>CITBL</b>	3.61	3.81	3.24	4.72	4.69	6.05	7.60	<b>4.82</b>	<b>1.54</b>
<b>PCBL</b>	2.02	1.91	2.12	3.15	4.25	5.12	6.02	<b>3.51</b>	<b>1.65</b>
<b>SUNBL</b>	5.55	6.26	5.49	7.18	8.24	9.86	11.04	<b>7.66</b>	<b>2.16</b>
<b>ADBL</b>	21.38	18.54	16.87	20.78	24.20	30.05	34.42	<b>23.75</b>	<b>6.36</b>
<b>NBL</b>	31.08	27.24	27.26	29.98	33.81	38.98	46.52	<b>33.55</b>	<b>7.02</b>
<b>Mean</b>	<b>9.98</b>	<b>8.88</b>	<b>8.66</b>	<b>10.55</b>	<b>14.66</b>	<b>16.60</b>	<b>20.15</b>		
<b>SD</b>	<b>8.12</b>	<b>6.62</b>	<b>6.49</b>	<b>7.74</b>	<b>9.85</b>	<b>10.93</b>	<b>13.43</b>		

## Appendix II

Structure and pattern of current deposits of Nepalese commercial banks for the period of 2009 to 2015 (Rs. in Billion)

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	5.52	7.92	5.82	6.73	7.50	9.71	12.93	<b>8.02</b>	<b>2.58</b>
<b>NIBL</b>	3.76	4.03	4.04	6.61	5.58	10.32	11.74	<b>6.58</b>	<b>3.23</b>
<b>SCBL</b>	6.20	9.76	11.55	11.32	13.89	13.77	17.14	<b>11.95</b>	<b>3.47</b>
<b>HBL</b>	7.57	9.04	3.69	4.58	5.84	6.42	8.48	<b>6.52</b>	<b>1.98</b>
<b>SBIBL</b>	2.86	2.86	4.26	3.78	5.02	4.12	4.82	<b>3.96</b>	<b>0.86</b>
<b>NBBL</b>	1.08	1.27	1.19	1.62	1.36	1.74	2.11	<b>1.48</b>	<b>0.36</b>
<b>EBL</b>	4.86	4.17	4.79	6.10	8.10	6.49	7.08	<b>5.94</b>	<b>1.41</b>
<b>BOKL</b>	2.29	2.75	2.43	2.79	2.33	3.25	3.79	<b>2.80</b>	<b>0.55</b>
<b>NCCBL</b>	0.59	0.57	0.62	0.65	0.73	0.83	0.97	<b>0.71</b>	<b>0.15</b>
<b>LUBL</b>	0.53	0.35	0.30	0.37	0.34	0.47	0.57	<b>0.42</b>	<b>0.10</b>
<b>MBL</b>	0.55	0.63	0.49	0.63	0.90	1.26	1.60	<b>0.87</b>	<b>0.42</b>
<b>KBL</b>	0.78	0.63	0.79	0.96	1.03	1.24	1.46	<b>0.98</b>	<b>0.29</b>
<b>LXBL</b>	1.04	0.82	0.75	0.88	0.99	1.12	2.98	<b>1.23</b>	<b>0.78</b>
<b>SIDBL</b>	0.39	0.37	0.50	0.75	13.79	2.17	2.59	<b>2.94</b>	<b>4.87</b>
<b>GIMEBL</b>	0.33	0.51	0.70	0.86	1.32	2.43	3.29	<b>1.35</b>	<b>1.11</b>
<b>CITBL</b>	0.40	0.38	0.32	0.51	0.71	0.78	1.09	<b>0.60</b>	<b>0.28</b>
<b>PCBL</b>	0.23	0.48	0.55	0.60	0.75	0.99	1.28	<b>0.70</b>	<b>0.35</b>
<b>SUNBL</b>	0.47	0.46	0.36	0.51	0.65	0.80	1.26	<b>0.64</b>	<b>0.31</b>
<b>ADBL</b>	3.10	2.46	2.84	4.35	7.81	8.75	8.09	<b>5.34</b>	<b>2.76</b>
<b>NBL</b>	9.57	10.54	10.92	12.33	13.79	15.53	17.70	<b>12.91</b>	<b>2.93</b>
<b>Mean</b>	<b>2.61</b>	<b>3.00</b>	<b>2.85</b>	<b>3.35</b>	<b>4.62</b>	<b>4.61</b>	<b>5.55</b>		
<b>SD</b>	<b>2.78</b>	<b>3.49</b>	<b>3.36</b>	<b>3.64</b>	<b>4.78</b>	<b>4.68</b>	<b>5.44</b>		

### Appendix III

Structure and pattern of fixed deposit rate of Nepalese commercial banks for the period of 2009 to 2015 (in percentage)

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	7.00	9.50	6.10	5.80	5.60	4.30	3.80	<b>6.01</b>	<b>1.88</b>
<b>NIBL</b>	5.50	5.50	3.00	3.00	3.83	3.00	3.00	<b>3.83</b>	<b>1.29</b>
<b>SCBL</b>	2.50	10.50	3.00	2.00	2.00	1.75	2.00	<b>3.39</b>	<b>3.16</b>
<b>HBL</b>	6.50	9.50	5.00	4.60	4.00	3.00	3.00	<b>5.09</b>	<b>2.30</b>
<b>SBIBL</b>	6.00	6.00	5.00	3.00	2.50	2.00	3.00	<b>3.93</b>	<b>1.69</b>
<b>NBBL</b>	4.75	4.75	4.00	5.00	4.50	4.00	3.00	<b>4.29</b>	<b>0.68</b>
<b>EBL</b>	4.00	4.00	3.00	4.00	4.00	3.00	2.50	<b>3.50</b>	<b>0.65</b>
<b>BOKL</b>	6.25	8.50	4.00	3.50	3.50	3.00	3.00	<b>4.54</b>	<b>2.07</b>
<b>NCCBL</b>	5.00	5.00	4.00	4.50	3.50	3.50	3.00	<b>4.07</b>	<b>0.79</b>
<b>LUBL</b>	5.00	5.75	3.00	4.00	4.00	3.00	3.00	<b>3.96</b>	<b>1.08</b>
<b>MBL</b>	7.00	11.50	6.00	4.00	4.00	3.00	3.00	<b>5.50</b>	<b>3.04</b>
<b>KBL</b>	6.50	10.00	5.00	4.00	3.50	3.00	3.00	<b>5.00</b>	<b>2.53</b>
<b>LXBL</b>	8.00	9.00	2.00	3.50	4.00	3.00	4.00	<b>4.79</b>	<b>2.64</b>
<b>SIDBL</b>	4.50	4.50	4.00	4.00	3.00	3.00	2.50	<b>3.64</b>	<b>0.80</b>
<b>GIMEBL</b>	5.00	10.00	11.00	4.00	3.50	3.00	2.25	<b>5.54</b>	<b>3.51</b>
<b>CITBL</b>	6.00	6.00	3.00	4.00	4.00	3.00	3.00	<b>4.14</b>	<b>1.35</b>
<b>PCBL</b>	6.50	10.00	11.00	4.00	3.50	3.00	3.00	<b>5.86</b>	<b>3.40</b>
<b>SUNBL</b>	4.75	9.00	4.68	2.00	4.00	3.00	3.00	<b>4.35</b>	<b>2.28</b>
<b>ADBL</b>	7.00	7.25	5.00	4.00	4.00	3.00	2.50	<b>4.25</b>	<b>1.60</b>
<b>NBL</b>	3.00	3.00	3.00	2.50	2.00	1.50	1.50	<b>2.36</b>	<b>0.69</b>
<b>Average</b>	<b>5.54</b>	<b>7.47</b>	<b>4.74</b>	<b>3.77</b>	<b>3.64</b>	<b>2.95</b>	<b>2.85</b>		
<b>SD</b>	<b>1.40</b>	<b>2.63</b>	<b>2.41</b>	<b>0.93</b>	<b>0.84</b>	<b>0.64</b>	<b>0.55</b>		

## Appendix IV

### Structure and pattern of ROA of Nepalese commercial banks for the period of 2009 to 2015 (in percentage)

<b>Banks</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean</b>	<b>SD</b>
<b>NABL</b>	2.55	2.38	2.43	2.8	3.25	2.65	2.06	<b>2.59</b>	<b>0.37</b>
<b>NIBL</b>	1.68	2.00	2.06	1.89	2.55	2.1	1.77	<b>2.01</b>	<b>0.28</b>
<b>SCBL</b>	2.56	2.7	2.55	2.8	2.67	2.51	1.9	<b>2.53</b>	<b>0.29</b>
<b>HBL</b>	1.91	1.95	2.86	1.88	1.62	1.22	1.32	<b>1.82</b>	<b>0.54</b>
<b>SBIBL</b>	1.05	1.02	1.01	0.82	1.19	1.5	1.7	<b>1.18</b>	<b>0.31</b>
<b>NBBL</b>	3.9	8.29	3.58	4	3.25	2.28	2.7	<b>4.00</b>	<b>1.99</b>
<b>EBL</b>	1.73	1.98	1.99	1.93	2.21	2.17	1.56	<b>1.94</b>	<b>0.23</b>
<b>BOKL</b>	2.25	2.12	2.39	2.04	1.84	1.29	0.76	<b>1.81</b>	<b>0.58</b>
<b>NCCBL</b>	2	3.16	1.43	0.99	1.4	1.37	1.25	<b>1.66</b>	<b>0.73</b>
<b>LUBL</b>	4.4	3.75	4.38	2.13	1.11	1.16	1.48	<b>2.63</b>	<b>1.50</b>
<b>MBL</b>	0.7	0.63	0.03	0.04	0.5	1.08	1.21	<b>0.60</b>	<b>0.46</b>
<b>KBL</b>	1.41	2.33	1.09	0.97	0.96	0.95	0.88	<b>1.23</b>	<b>0.52</b>
<b>LXBL</b>	1.03	1.51	1.69	1.32	1.42	1.26	0.81	<b>1.29</b>	<b>0.30</b>
<b>SIDBL</b>	1.27	1.1	1.19	0.98	0.64	1.79	1.38	<b>1.19</b>	<b>0.36</b>
<b>GIMEBL</b>	1.3	1.21	1.25	1.06	1.31	1.58	1.41	<b>1.30</b>	<b>0.16</b>
<b>CITBL</b>	0.74	1.16	1.78	1.7	2.3	1.62	1.7	<b>1.57</b>	<b>0.50</b>
<b>PCBL</b>	1.06	1.58	1.65	1.21	1.43	1.64	1.67	<b>1.46</b>	<b>0.24</b>
<b>SUNBL</b>	0.51	1.15	0.65	0.66	1.16	1.25	2.03	<b>1.06</b>	<b>0.52</b>
<b>ADBL</b>	2.04	2.39	2.41	2.35	2.44	1.39	2.06	<b>2.15</b>	<b>0.38</b>
<b>NBL</b>	1.88	0.86	0.69	0.67	1.03	1.25	2.73	<b>1.30</b>	<b>0.75</b>
<b>Average</b>	<b>1.80</b>	<b>2.16</b>	<b>1.86</b>	<b>1.61</b>	<b>1.71</b>	<b>1.60</b>	<b>1.62</b>		
<b>SD</b>	<b>1.00</b>	<b>1.65</b>	<b>1.03</b>	<b>0.93</b>	<b>0.81</b>	<b>0.49</b>	<b>0.54</b>		