CHAPTER 1
INTRODUCTION

1.1 Background of the study

Bank deposit represent the most significant component of the money supply used in by the public and change in money growth are highly correlated with change in the price of good and service in the economy. Deposit variability is frequently included an important determinants of portfolio strategy, the more volatile a bank deposit are, the more liquid its mix of assets will be. Deposit variability affects bank holding of cash and excess reserves, the distribution of total member bank reserves within the banking system and thereby the path and speed of monetary policy action. This is why deposits are very important for banks and as a result, for the economy of a country. Banks need inflow money from the people so that they can be able 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 & Sarlak, 2014).

Commercial banks are institutions that engage in two distinct types of activities, one on each side of the balance sheet deposit-taking and lending (Kashyap, Rajan and Stein, 2002). Varman (2005) considered commercial banks as the backbone of the trade and commerce playing the intermediary role of capital formation and supply. Even if other financial institutions are available, commercial banks play a major role in facilitating the way that financial sector operates. Commercial banks perform various roles in the economy. According to Allen and Carletti (2008), commercial banks ameliorate the information problem between investors and borrowers by monitoring and ensuring a proper use of the depositors' fund. They provide inter temporal smoothing of risk that cannot be diversified at a given point in time as well as insurance to depositors against unexpected consumption shocks. Because of the maturity mismatch between their assets and liabilities, banks are subject to the possibility of runs and systematic risk. Commercial banks contribute to the growth of the economy. They perform an important role in corporate governance. The relative importance of the different roles of banks varies substantially across countries and times but banks are always critical to the financial system.

Mirzaei & Mirzaei (2011) analyzed bank-specific and macroeconomic determinants of profitability in Middle East Banking and found that 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. Gross domestic product (GDP) is among the most commonly used macroeconomic indicator to measure total economic activity within an economy. The GDP is expected to influence numerous factors relating to the supply and demand for loans and deposits (Sufian, 2010). Kanj& Khoury (2013) examined determinants of non-resident deposits in commercial banks: evidence from Lebanon the results show 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. However, while 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; this fact is attributed to the fact that local currency deposits account for a small percentage of total nonresident deposits.

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. Bank deposits have been of interest to many scholars, investors and the government in past decades yet not much has been realized in terms of research and literature. Most studies in recent past tended to focus on interest rate spread rather than on determinants of deposit creation in banks in defense of efficiency in the banking sector. Demirgue-Kunt and Huizinga (1999). However there seem to be a slightly counter view by Brock and Franken (2002) holding on to the view that individual bank's specific characteristics are more potent in impacting on commercial banks net interest margins. This study however takes a look at the determinants of bank deposits recognizing bank investment, interest rate, bank branches and consumer price index (proxy for inflation) as relevant macroeconomic indicators of bank deposit creation.

To an investor, 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 the lending behaviors and as a consequence an analysis of the determinants of bank deposits ii imperative. To buttress this need, bankers of international repute Nwankwo (2000). Herald Finger and Hesse (2009) made sounding observation on the need for deposit creation. . According to Nwankwo (2000), credit constitutes the largest single income-earning asset in the portfolio of most banks in Nigeria hence the need for banks to spend enormous resources to estimate, monitor and manage credit quality. This is undoubtedly a practice that impact greatly on the lending behavior of banks as large resources are involved. Similarly, Finger and Hesse (2009) observed that commercial bank deposits are key to ensuring continued government financing in Lebanon because with the high government debt largely held by the domestic commercial banks, their continued funding mainly from resident and non-resident deposits is an important gauge to the viability of the Lebanese financing model. They argued further that available statistics do not shed more light on the origins of deposit; it is pretty difficult to substantiate bank deposits in isolation without recourse to lending behavior theories which provide the basis for fund mobilization in the banking industry.

Commercial banks are important of all other financial institutions and macroeconomic environment. As to Ashcraft (2005), commercial banks failures involve significant macroeconomic cost; this researcher has developed evidence that bank failures have significant and apparently permanent effects on real economic activity. Therefore, banks are also important influencers in macroeconomic environment. In last decade the world has seen fall of some huge banks and taking the world's economy down with them.

Moreover, commercial bank has been affecting and will affect the overall economy of the specific country both in a good way or bad way. Commercial banks represent a vital link in the transmission of government economic policies (particularly monetary policy) to the rest of the economy. For example, when banks credit is scarce and expensive, spending in the economy tends to slow and unemployment usually increases

(Sergeant, 2001). So, the event in the commercial banks will affect the country's economy in general.

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).

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 has positive influence on the private savings in Nepal and also significant

1.2 Problem statement and research questions

Investigating the savings behavior of Mainland Chinese, Qin (2003) found that the expected savings potential was the chief determinant of bank deposits. Similarly, to their Taiwanese counterparts, interest rate seems to be an important consideration to Mainland Chinese in making deposits. This researcher concluded that that precautionary was one of the essential factors that motivated them to save. One of the important literatures on saving behavior was a study by Hondroyiannis (2004), who used cointegration approach in estimating the behavior of Greece households. He provided empirical evidence that in the long run savings function is sensitive to fertility changes, old dependency ratio, real interest rate, liquidity and public finance.

Agrawal (2001) studied the relationship between saving and growth in seven Asian countries (South Korea, Taiwan, Singapore, Malaysia, Thailand, Indonesia, and India) and found mixed results. Both high rate of growth of income per capita, and the rapidly declining age dependency ratio contributed to the high rate of saving in these countries. As for the interest rate, a significant positive relationship was found for Malaysia and Thailand and negative for Indonesia. Anoruo (2001) also used ASEAN countries in his saving-investment connection study and established the long run relationship between savings and investment for all countries under consideration.

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.

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.

As the study conducted in this particular area is rarely available academicians lacks the reference material of this area. The present study is, therefore, an endeavor to estimate the effect of macroeconomic variables and bank specific variables on the level of deposits in Nepalese commercial banks. It deals with the following research questions.

i. What is the situation of deposit in Nepalese commercial banks?

ii. Is there any relationship between bank specific variables with deposit of Nepalese commercial banks?
iii. To what extent macroeconomic variables affect the bank deposits of Nepalese commercial banks?

1.3 Purpose of the study

The major purpose of the study is to identify the factors affecting the deposit of Neplease commercial bank's and to determine the relationship between total deposit and the identified factors. The specific objectives of the study are streamlined as follows:

i. To investigate the trend of total deposit in commercial banks in Nepal.
ii. To examine the effect of bank specific variables (saving, fixed deposit rate, number of branches, return on assets) on total deposit in Nepalese commercial banks.
iii. To analyze the impact of macroeconomic variables(population growth rate, money supply, gross domestic product ,consumer price index) on deposit in Nepalese commercial banks.

1.4 Significance of the study

The study conducted on the title of Determinants of Bank Deposits is expected to be used and/or applied by both the academicians and bank managements. Accordingly, the following two are the significances that are attained by the study.

i. This study will help commercial banks to manage their deposit by letting them know what affects it and which variable is the most important so that should be given due emphasis.
ii. The study adds knowledge on the field of finance. The studies that are conducted on the factors affecting commercial banks deposit are rare; therefore, the study will be an important reference material on the field of finance.

1.5 Limitations of the study

i. Other variables affecting commercial banks deposit are totally ignored.

ii. The overview of the study has taken into consideration of some selected commercial banks so that the study might not cover the whole commercial banks.

iii. The study is based on co-relation and regression method of analysis and using secondary data of selected commercial bank so other research design and primary data is not taken into consideration.

iv. This study only focus on banks specific variables such as saving deposit rate, fixed deposit rate, number of branches ,ROA and macroeconomic variables such as population growth rate, money supply, GDP, consumer price index so other variable are not focus for the study.

v. This study has analyzed last 7 years data beginning from 2013/14 to 2019/20

1.6 Chapter plan

A chapter plan is an outline that helps us to organize material is a way that is easy to comprehend. It can be a very useful tool in helping to find the main points of the chapter. This report has been divided into five chapters.

Chapter I: Introduction

Chapter one gives detail about the study area and the concept note about the research problem under study. It includes background of the study problem statement, objectives, significance of the study, limitations and the conceptual framework.

Chapter II: Literature review

Review of literature gives the investigator a throughout and profound knowledge of the research topic. It provides guidelines to use statistical methods for analysis of collected data.

Chapter III: Methodology

This chapter discusses in detain the research methodology applied in the context of this study. It includes research design, data sources, variables, population sample and sampling techniques, research tools and techniques and plan for data analysis.

Chapter IV: Results

Data analysis includes tabulation, coding and classification of data gathered in accordance with the research design, to perform quantitative and qualitative analysis. The details about the analysis and interpretation of the findings are described here.

Chapter V: Conclusion

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

CHAPTER 2
LITERATURE REVIEW

This section deals with the brief review of existing and prior empirical studies, related to the subject of this study. The study of determinants of bank deposit of the commercial banks has been a matter of interest for researchers for long time. Many studies have been carried out in developed as well as developing economies relating to this topic. Generally, the portion of literature review has divided into following parts: -

2.1 Conceptual review

2.2 Review of journal articles

2.3 Review of previous studies

2.4 Conceptual framework

2.5 Research gap

2.1 Conceptual review

Commercial bank deposits are major liabilities for commercial banks. Sergeant (2001) said that deposits of commercial banks account for about 75% of commercial bank liabilities. Due to the fact that commercial banks are using this liability to lend it and gain return on it their deposits are using them do their business. Therefore, banks will be better if they are mobilizing more deposits. Deposits provide limits to the working capital of the bank concerned. The higher the deposits, the higher will be the funds at the disposal of a bank to lend and earn profits concluded by Rao (1975). Therefore, to maximize its profit the bank should increase its deposit. Varman (2005) had also mentioned deposits as a foundation up on which banks thrive and grow and unique items on a bank's balance sheet that distinguish them from other type of business organizations.

Commercial banking is a service industry with a high degree of built in profit potential said by Thyagarajan (1975). The number one expense item for a bank is interest paid. Commercial banks mainly depend on the funds deposited with them by the public to

lend it out to others in order to earn interest income. Rashid (2011) said that if banks lose their deposit base, they rely on non-deposit-based funding which is expensive. Hence, the competition for deposits is really a competition for profits. Commercial banks compete for deposits in order to become profitable and thus to be able to supply more funds to the public. However, such financial growth is profitable only if the commercial bank does not incur additional expenses to obtain and retain cash said by Rasiah (2010). Commercial banks earn a return on their deposits and capital by investing deposit funds and capital funds in assets concluded by Bond (1971). Capital structures in commercial banks are made up of shareholder's funds, borrowing and deposits. Therefore, deposits are one of the sources of capital for commercial banks.

Saving account deposit which caters the need of those who wishes to save money but at the same time wants to earn an income. Depositors of savings account hold money because of precautionary motives while are simultaneously induced by their investment motives. Precautionary motive for holding money refers to the desire of people to hold cash balances for un-foreseen contingencies. Others are bounded by the speculative motive for holding money. The speculative motive relates to the desire to hold one's re-sources in liquid form in order to take advantage of market movements regarding the future changes in the rate of interest. Time (fixed) deposits facility is offered by banks to cater for the investment motives of customers who normally have idle funds and are looking for better returns on their money. (Haron and Azmi, 2006)

Economic performance is generally being measured through GDP, a variable that has also become the de facto universal metric for 'standards of living' (Goosens, Schepelmann and Sand, 2007). It is universally applied according to common standards, and has some undeniable benefits mainly due to its simplicity. According to Finger and Hesse (2009), growth is one of the determining factors for commercial banks deposits. GDP is calculated by adding up the value-added at each stage of production (deducting the cost of produced inputs and materials purchased from an industry's suppliers) said by Stanford (2008). Rachmawati and Syamsulhakim (2004) finds four variables, GDP, number of Islamic bank's branch offices, profit sharing rate, and interest rate that are thought to have influence on the volume of deposits. So, GDP can influence the growth of commercial banks deposits.

As to Finger and Hesse (2009), inflation is one of a factor that determines commercial banks deposits it can be measured by consumer price index. Fischer showed that in Latin America the effect of inflation on savings and time deposit to GDP was significantly negative (Namazi and Salehi, 2010).The classical belief is that, because bank assets and liabilities are expressed in monetary terms and because these assets will normally grow in line with growth in money supply, banks are relatively immune from the effects of inflation (Rasiah, 2010). In brief, monetary policy works by controlling the cost and availability of credit. During inflation, the central bank can raise the cost of borrowing and reduce the credit creating capacity of commercial banks. According to this researcher this 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. Banking system was affected by inflation in terms of deposit absorption and facilities grant. As to Namazi and Salehi (2010), in developed countries negative correlation between inflation and absorbed deposits and granted facilities has been documented. However, in developing countries the opposite is true.

With respect to the effect of inflation on savings, it can be mentioned that in general, all individuals who save a part of their incomes in banks are directly damaged by the inflation and their assets decrease in proportion with money value decrease (Namazi and Salehi, 2010). In that case as this researcher describes people try to change their cashes and savings to more reliable and stable forms such as land, jewelry, antiques, art collections, foreign currencies that causes to definite decrease in commercial bank's total deposit. According to Khalily, Meyer and Hushak (1987), inflation technically did not decrease deposit; however, it decreases the value of deposits.

The twin objectives of commercial banks, i.e. acquiring deposits and advancing credit cannot be attained without good banking habits of the people (Varman, 2005). Moreover, this researcher states that, 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 loanable fund. So, the higher number of

deposits accounts the greater is the advantage to banks. The number of deposit accounts depends on the number of deposit account holders.

Bank deposit represent the most significant component of the money supply used in by the public and change in money growth are highly correlated with change in the price of good and service in the economy. Deposit variability is frequently included an important determinants of portfolio strategy, the more volatile a bank deposit are, the more liquid its mix of assets will be. Deposit variability affects bank holding of cash and excess reserves, the distribution of total member bank reserves within the banking system and thereby the path and speed of monetary policy action. This is why deposits are very important for banks and as a result, for the economy of a country. Banks need inflow money from the people so that they can be able 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 & Sarlak, 2014).

The interest rate is the amount a lender charges for the use of assets expressed as a percentage of the principal. The interest rate is typically noted on an annual basis known as the annual percentage rate (APR). The deposit interest rate is paid by financial institutions to deposit account holders. Deposit accounts include certificates of deposit (CD), savings accounts, and fixed deposit accounts. Though fixed and current deposit accounts typically pay a modest interest rate, their safety and reliability make them a great option for parking cash you want available for short-term needs. The interest rate paying by fixed deposit account is fixed deposit interest rate and interest rate paying by saving deposit is saving deposit interest rate. (investopedia.com)

Rachmawati and Syamsulhakim (2004) find the long run relationship between commercial banks deposits and the profitability of the banks. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage. (investopedia.com). Higher bank profits would tend to signal increased bank soundness, which could make it easier for these banks to attract deposits (Finger and Hesse, 2009). Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets.

There is a relationship between commercial banks deposits and commercial bank's branch expansion. Not only are deposits influenced by bank branches, but the expansion of bank branches is also influenced by the level of deposits in any area (Khalily, Meyer and Hushak, 1987). It is expected that banks make decisions on expanding their facilities by considering factors such as level of competition, deposit potential, regional income and existence of road and vehicles. As deposit potential is one thing that banks consider in expanding its branches, the deposit can also be a reason for branch expansion strategy that the banking sector uses. According to Rachmawati and Syamsulhakim (2004), there is a long run relationship between commercial bank branch and commercial banks deposits.

Capital market is a mechanism through which funds can be borrowed and lent for long period of time and stock price is determined though free interaction of market forces such as demand and supply. Since share price is market determined, often it does not reflect the true intrinsic value.

There are different conceptual frameworks, tools and techniques to analyze the performance of capital market instruments which includes Markowitz model, Sharpe Single Index Model, Capital Asset Pricing Model, Technical analysis, Fundamental analysis, Efficient Market Hypothesis and different valuation approaches. All the models are based on some critical assumptions as well as on strong analytical foundations. It has been experienced that often these established empirical models are unable to forecast the movement of stock prices.

Almost in all the cases, models are formed on the basis of simplistic assumption that investors are rational in nature where in reality; market is driven by emotion, sentiment, greed and fear of the investors. Thus, the assumption of rationality of investors does not hold in real life. Hence company's capital market performance should be used as an integral part to analyze the perception of investors about the company instead of using the same to judge the fundamental strength of the company. (Dhar 2014).

Banking sector is chosen as it is highly regulated sector in Nepal. Nepal Rastra Bank is the banking regulatory apex body in Nepal. All the banking players are required to

conform to the rules and regulations of NRB which includes minimum fund level, paid up capital, establishment fund, marginal standing facility, bank rate and fixed deposit rate. All listed public sector undertaking banks as well as Private Banks have to conform to listing criteria as per the security board of Nepal.

Apart from that, structure of banking sector in Nepal is unique by nature. Banks can be broadly categorized into four groups – commercial banks ('A' class), development bank ('B' class), finance company ('C' class), and microfinance development bank ('D' class) banks. Commercial banks are an institution which accepts deposits makes business loans, and offers related services. Commercial banks also allow for a variety of deposit accounts, such as checking, savings, and time deposit.

These institutions are run to make a profit and owned by a group of individuals. Microfinance services still are yet to reach remote and deprived sectors. He added, "The agriculture sector requires commercialization and entrepreneurship among farmers needs to be enhanced along with financial. These two classes of banks are performing in various manners in the stock exchange limited. On the basis of market price of this bank investor on the particulars stocks are earning more or less. Stocks in which the investors are gaining are becoming most attractive one among the alternatives. The aims of this study are focus on the capital gain return earn by the investors.

Generally, the problem is attributed to the prevailing politico- economic situation. No doubt, it is true to a large extent but the problem is not confined to the present situation alone. The management of the companies and the attitude of the board of directors and intermediaries are to blame a lot. The actors of financial markets are loosely tied together from legal provisions, which are not effectively implemented. As the financial institutions pre-dominate the market, it has not been able to diversify. Increasing problems noted with the corporate governance, transparency and disclosure have seriously dented the Nepalese capital market.

The Board mainly acts as a superfluous body trying to fulfill formalities rather than seriously attending to corporate governance. The result has been poor security to investors, particularly minority shareholders, who are not fully aware of the risk and return considerations. Hence, to make the stock exchange a vehicle of growth,

initiatives must be taken to protect investors, improve corporate governance and make the companies operate in a conducive and transparent manner.

NEPSE opened its trading floor on 13 January 1994. As on November, 10, 2019, the numbers of listed companies are 245, which include Commercial Banks, Hydro Power Companies, Insurance Companies and Finance Companies among others. The Exchange has 50 registered brokers as of November 2019. The NEPSE Index is primary all equity market index of NEPSE. It is regulated by the Securities Board of Nepal (SEBON 2019).

2.2 Review of journal articles

The empirical study about the determinants of deposits in Greek banking system was analyze the main drivers of commercial bank deposits in Greece since the country joined the euro area in January 2001. The empirical methodology employs cointegration techniques and a vector error correction model (VECM) for studying the determinants of private-sector deposits to domestic commercial banks. Among other important empirical findings, the study documents a strong positive link between bank deposits and bank credit to the domestic private sector in the periods before and after the eruption of the sovereign debt crisis. A strong positive link also exists between bank deposits and the level of gross national product (GDP). (Monokrousos and Thomakos, 2011).

The study about the deposit determinants in Malaysia investigates the structural determinants of deposits level of commercial banks in Malaysia, using cointegration techniques. This study classified variable in two, namely financial and economic variables. Financial variables consist of interest rates on savings account (RSCV), and fixed deposit accounts (ARFDCV), rates of profit of Islamic savings account (RSIS), and Islamic investment accounts (ARIIS). Whereas, based lending rate (BLR), composite index of Malaysian Bourse (KLCI), consumer price index (CPI), money supply (M3) and gross domestic product (GDP) are economic variables. This study used secondary data for the following models:

CR = f (ARIIS, ARFDCV, BLR, KLCI, CPI, M3, GDP)

SA = f (RSIS, RSCV, BLR, KLCI, CPI, M3, GDP)

FD = f (ARIIS, ARFDCV, BLR, KLCI, CPI, M3, GDP)

The results suggest that determinants such as rates of profit of Islamic bank, rates of interest on deposits, Base Lending, Kuala Lumpur Composite Index, Consumer Price Index, Money Supply and Gross Domestic Product have significant impact on deposits. (Haron and Azmi, 2006).

Although most studies have relied on domestic or private sector saving data, the study about the household savings in developing countries used household data available from the U.N. System of National Accounts for a sample of 10 countries. Household saving functions are estimated using combined time-series and cross-country observations in order to test household's response to income and growth, rates of return, monetary wealth, foreign saving, and demographic variables. The results showed that income and wealth variables affect saving strongly and in ways consistent with standard theories. Inflation and the interest rate do not show clear effects on saving, which is also consistent with their theoretical ambiguity. Foreign saving and monetary assets have strong negative effects on household saving, which suggests the importance of liquidity constraints and monetary wealth in developing countries. (Schmidt-Hebbel, Webb and Corsetti, 1992).

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.

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.

While studing about the effects of interest rates on savings in developing countries, the evidence was not conclusive, time-series estimates for individual countries as well as cross-section and time-series estimates for a number of countries pointed to the positive effects of interest rates on savings. At the same time, a variety of factors had reduced the statistical significance of the estimates. (Balassa B. , 1989).

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.

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, monitary 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.

Khaniya (2014) investigated the determinants of bank deposit of Nepalese commercial banks. The study includes secondary 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.

Oyebowale, Adeola (2019) investigated the determinants of banks lending in Nigeria.the empirical mode of study investigates the influences of growth in loan to deposit ratio, growth in inflation, growth in broad money and growth in bank capital on growth in commercial bank lending in Nigeria. The study provides the knowledge about the empirical evidence regarding bank capital as a determinants of bank capital Gambocarta & mistruli (2004) and Kim & sohn (2017).

Getanen Yenealam Ayena (2020), investigate the determinants of deposits mobilization in the case of commercial bank of Ethiopia. Deposit mobilization is primary activities of banking system. Bank mobilized resources required for investment and economic growth from household, business, corporate body’s and government. The study finding shows that branches expansion, variety of services, confidentiality of customers information, trust on banking system and saving habit are found to be significant variables affecting deposit mobilization,

2.3 Review of previous studies

The study on deposit growth in Pakistan is based on secondary data. The objective of this study was to find out, what determined the bank deposits and whether the nationalization of commercial banks indicated any shift in these determinants or not. The study compared the post and pre-nationalization periods and tests the hypothesis that deposit grew faster in post nationalization period. Time series data were used for this study. The model used for this study is

$D_t = f (Y_t$ or Y_a or Y_{na}, r_d, r_B, r_{SP}, r_{RS}, r_{DC}, r_{KD}, BC, BB, D_{t-1}, D_1, D_2 or D_3)

D_t = Deposit of commercial banks in nominal terms (deposits are classified as demand deposits and time deposits)

Y_t = Gross National income at market price

Y_a = National income from agricultural sector at market price

Y_{na} = National income from non-agricultural sector at market price

r_d = Interest rate on the commercial bank deposits

r_B = Yield on government bonds and securities

r_{SP} = Yield on industrial securities

r_{RS} = Investment index on real state

r_{DC} = Yield on defence certificate

r_{KD} = Yield on national saving schemes

BC = Bank Credit in nominal terms

BB = Bank branches in the country

D_{t-1} = Deposits of commercial banks in proceeding year

D_1 = Dummy variable = 1 for nationalization and = 0 for pre nationalization period

D_2 = Slope dummy i.e D_1multiplied by Y_t

D_3 = Slope dummy i.e D_1 multiplied by Y_{na}

The study found that increased in income level increases the demand for demand deposits. The investment in industrial securities is a significant substitute for the demand deposits. The demand for time deposits are influenced by non-agricultural income, bank credit, interest on time deposits are influenced by non-agricultural income, bank credit, interest on time deposits and investment in real estate. Increase in the yield on time deposits will increase more time deposits with commercial banks. The result also showed that after nationalization period the growth in demand deposit is

higher than post nationalization. For time deposit it indicated that though the time deposits have gone up during post nationalization period but the growth of time deposit have declined. It clearly motivates the policy maker to make the return on time deposit more attractive and competitive than other attraction available to public. (Nishat and Bilgrami, 2013).

The IMF study about the Lebanon determinants of commercial bank deposits examined the demand for commercial bank deposits in Lebanon, a regional financial center. With Lebanon's high fiscal deficits financed largely by domestic commercial banks that rely on deposit funding, deposit growth is a key variable to assess government financing conditions. Estimating a number of vector error correction models to take account of cointegration in the non-stationery time series, the paper found that both domestic and international factors help to explain deposit demand. At the macro level, the paper found that domestic factors such as economic activity, prices, and the interest differential between the Lebanese pound and the U.S. dollar are significant in explaining deposit demand, as are external factors such as advanced economy economic and financial conditions and variables proxying the availability of funds from the Gulf. Impulse response functions and variance decomposition analyses underscore the relative importance of the external variables. To gauge the determinants of deposit demand more systematically, the paper empirically estimates a number of deposit demand functions, using quarterly data from 1993-2008. The starting point is a specification that, akin to a standard money demand function, focuses on domestic factors of real economic activity, prices and interest rates. The paper chooses the Banque du Liban's coincident indicator (CI) as a proxy for economic activity, given is close correlation with GDP and its availability as a reasonably long quarterly time series. For prices, the paper chooses the Consultation and Research Institute's Consumer Price Index (CPI), also given the availability of a sufficiently long time series. Since Lebanon is a small open economy with a fully open capital account and a fixed exchange rate to the U.S. dollar since 1999, the paper chooses as interest rate variable the interest rate differential between the Lebanese pound deposit rate and the U.S. dollar LIBOR. At the micro level, the paper found that in addition, bank-specific variables, such as the perceived riskiness of individual bank (proxied by the z-score),

their liquidity buffers(measured by the ratio of liquid assets to deposits), loan exposure, and interest margins, bear a significant influence on the demand for deposits. (Finger and Hesse, 2009).

The aim of the study about the factors affecting deposits in Indonesia was to figure out the factors affecting deposits in Indonesia using a well-known econometrics cointegration method. It uses quarterly time series in the period of 1993-2003. Four variables, GDP, number of Islamic bank's branch offices, profit sharing rate, and interest rate are thought to have influence on the volume of deposits. The cointegration test indicates that the number of Islamic bank's branch offices and profit-sharing rate are significantly affects the volume of deposits in Indonesia in the long run, while GDP and interest rate are not. The study concluded that the volume of deposits in Indonesia does not depend on income or interest rate, but depend on profit sharing rate and the number of branch offices of the Islamic commercial banks. This finding supported the view that depositors are attracted to put their money in Indonesian Islamic banks partly due to welfare maximization reasons, not only because of their religious considerations. Moreover, in order to increase the volume of deposits in Indonesia, it is suggested that more branch offices in Islamic commercial banks are built. Indonesian Islamic commercial banks should also provide an optimal profit-sharing rate in order to attract more depositors. (Rachmawati and Syamsulhakim, 2004).

Similarly, the study about the savings in Thailand examined through and in-depth case study of Thailand during the period 1960 to 2004. Results suggest that an increase in economic growth, inflation and terms of trade all have a significant positive impact on household and private saving rates. In contrast, the availability of bank credit tends to reduce household and private saving rates. Furthermore, public saving seems to crowd out household and private saving, but less than proportionately. This reflects a possible role of fiscal policy in increasing national savings in the economy. Over and above these variables, corporate saving is another important determinant of household saving. (Jongwanich, 2009).

The study in Ethiopia about the determinants of deposits used both primary and secondary data. The primary data was collected by a means of interview and questionnaire. The secondary data for the study were the values of dependent and

independent variables. Three variables are regressed with the dependent variable; these variables are deposit rate, inflation rate and bank branches. The multiple regression model is constructed for the dependent variable and three independent variables. i.e.

$LNTD_{it} = a + B_1 DR_{it} + B_2 INFRATE_t + B_3 LNBRit + B_4 D2002 + B_5 D20011 + e_{it}$

Where,

$LNTD_{it}$ = Total deposit of commercial banks

DR_{it} = Deposit rate (interest rate)

$INFRATE_t$ = Inflation rate

$LNBR_{it}$ = Branches of commercial banks

D2002 and D2011 are dummy variables that are added in the model to have normal distribution among the residuals. Different diagnostic tests are tested to know whether the model is valid or not, having the model is valid the regression analysis and hypothesis testing is performed. As a result of the hypothesis it was found that all the three variables can affect total deposit. Branch expansion had positive and significant effect on total deposit whereas deposit rate and inflation rate had positive and insignificant effect on total deposit. (Gemedu, 2012).

2.4 Research gap

The review of above relevant literatures has contributed to enhance the fundamental understanding and knowledge, which is required to make the study meaningful and purposeful. There are various research conducted on bank deposit in different countries such as Ethiopia, Malaysia, Pakistan, but no single research has been conducted on determinants of bank deposit in Nepal Though, a number of studies in various developing and developed countries have been conducted, findings of these studies may not be applied in Nepalese context. The study attempts to explore the various factors affecting deposit of Nepalese commercial bank.

CHAPTER 3

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.

3.1 Research design

The study is based on descriptive and causal research design. 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.

The study also analysis 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 2013/14 to 2019/20.

3.2 Population and sample

Population of this study includes all the 27 commercial banks listed in NEPSE till September, 2020. In selecting the most reliable and representative samples, non-probability sampling technique convenience was used. Which is selects samples based on subject judgment of the researcher rather than random selection for the study purpose, joint venture and private banks involving in banking services at least for five years have been considered for sample. Since all of them did not provided scope for the study, 13 different Nepalese commercial banks were taken as a sample out of 27 Nepalese commercial banks for the period of 2013/14 to 2019/20.

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 of linear regression analysis. All models are tested for individual effects by running correlation and regression using statistical package for social science (SPSS 25). Details analysis of models and statistical test of significance have been dealt in the following sections.

3.5 Data analysis tools 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 Pradhan and Paneru (2016) equation is designed. 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 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,

β_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.

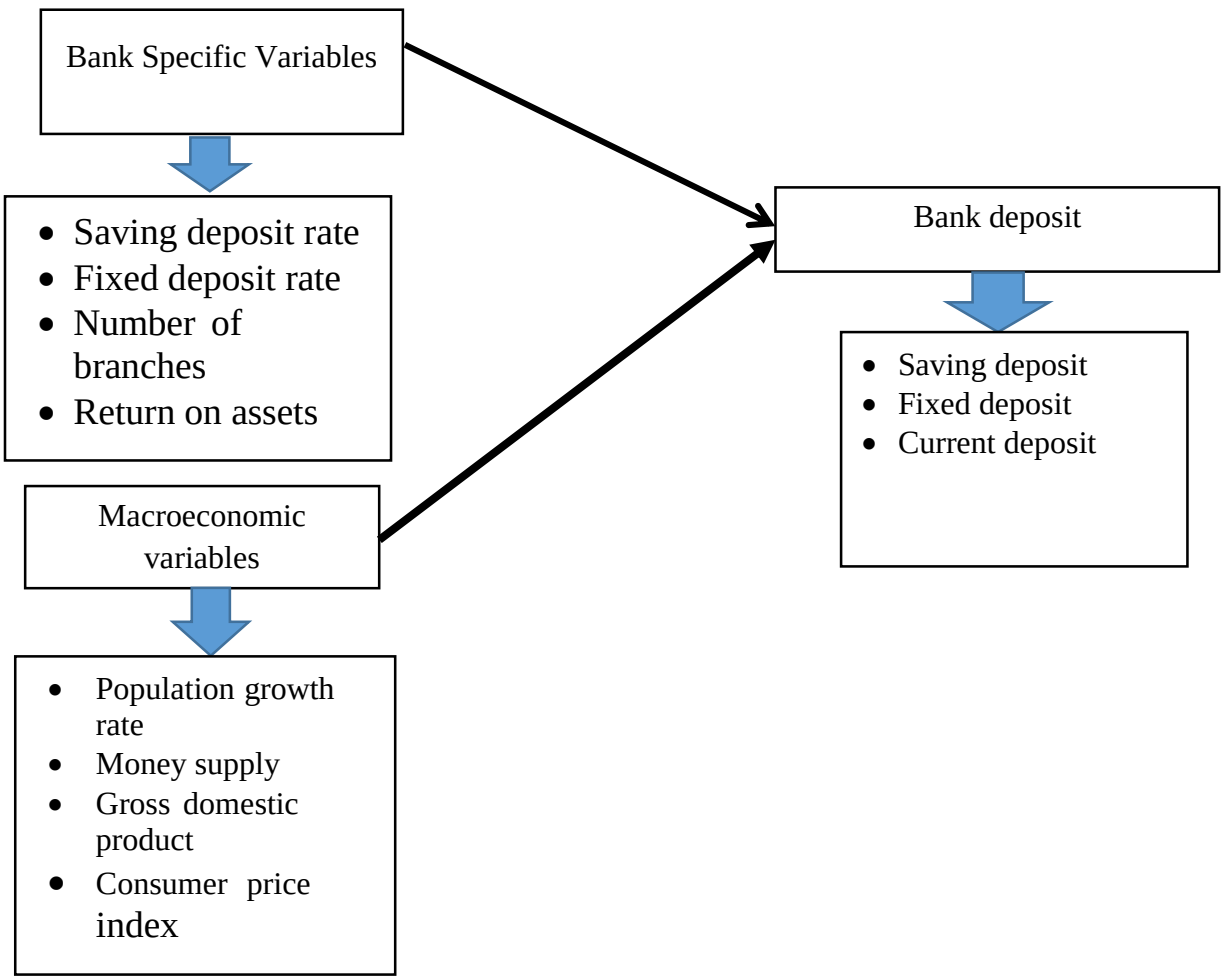
variables and bank specific variables are needed to determine deposit. The study focuses on major bank specific variables that influence deposit such as: saving deposit rate, fixed deposit rate, number of bank branches and return on assets. Similarly, it is also very important to know the macroeconomic factors affecting the deposit of the banks so, variables such as: population growth rate, money supply, gross domestic product and consumer price index.

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 13 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.

3.6 Conceptual framework

Many studies such as: Rachmawati and Syamsulhakim (2004), Finger and Hesse (2009) and Rasiah (2010) describes about the relationship between bank specific variables and total deposit of commercial banks. The country's economic, social and political factors also affect the commercial banks. According to Finger and Hesse (2009), country specific risks such as political, economic and financial risks may affect the propensity for depositors to place funds in the banking system. Based on the various researches, for measuring the determinant of commercial bank deposit the conceptual framework of this study has been developed. The conceptual framework of this study has been shown in figure 2.1

Figure 2.1: Schematic diagram on determinants of bank deposit



CHAPTER 4

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 Data presentation and analysis

4.1.1 Structure and pattern of deposits, firm specific and macro-economic variables

This section attempts of analyze the structure and pattern of banks deposit, firm specific variables and macro-economic variables for the period of 2013/14 to 2019/20. It also analyzes the mean and standard deviation of each individual bank separately as shown in the following Table.

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

Table 4.1

Structure and pattern of saving deposits of Nepalese commercial banks for the period of 2014 to 2020 (Rs in Billion)

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	32.6	42.72	50.4	48.13	44.14	49.87	56.88	46.39	7.64
NIBL	25.02	31.73	39.42	36.61	39.38	41.06	56.88	38.59	9.81
SCBL	19.53	23.48	26.91	22.8	22.99	25.56	29.52	24.40	3.24
HBL	32.84	38.73	46.43	38.13	39	38.49	43.83	39.64	4.37
SBIBL	16.61	21.49	26.83	28.66	28.64	31.05	34.55	26.83	6.01
BOKL	10.96	12.69	17.64	20.06	21.43	21.42	25.46	18.52	5.15
NCCBL	7.18	8.32	18.72	21	22.23	20.84	22.42	17.24	6.61
MBL	14.29	17.86	19.3	21.79	26.59	26.59	33.13	22.79	6.40
KBL	7.23	8.01	13.1	16.33	18	18	30.78	15.92	7.91
SIDBL	9.52	12.42	17.62	26.04	33.33	33.32	41.04	24.76	11.89
GIMEBL	20.4	25.11	32.7	37.14	42.74	42.74	77.45	39.75	18.64
CITBL	6.05	7.6	10.62	13.61	16.79	16.79	23.58	13.58	6.08
SUNBL	9.86	11.04	16.38	19.79	23.31	23.31	28.5	18.88	6.85
Mean	16.31	20.09	25.85	26.9	29.1	29.9	29.9		
SD	9.28	11.81	12.82	10.1	9.54	10.4	16.2		

Source: Annual report of selected sample banks

The structure and pattern of saving deposits for Nepalese commercial banks indicated that average saving deposit is highest for NABL (Rs. 46.39 Billion), followed by GIMEBL (Rs. 39.75 Billion), HBL (Rs. 39.64 Billion), NIBL (Rs. 38.59 Billion), SBIBL (Rs. 26.83 Billion), SIDBL (Rs. 24.76 Billion), SCBL (Rs. 24.40 Billion), MBL (Rs. 22.79 Billion), SUNBL (Rs. 18.88 Billion), BOKL (Rs. 18.52 Billion), NCCBL (Rs. 17.24 Billion), KBL (Rs. 15.92 Billion), CITBL (Rs. 13.58 Billion). The average

saving deposit computed across the year fluctuated over a period of time, it increased from Rs. 16.31 Billion in 2014 to Rs.29.9 Billion in 2020.

According to the table, saving deposit has increased within the individual banks also. It increased from Rs. 32.6 to Rs. 46.39 Billion for NABL, from Rs. 25.02 to Rs. 38.59 Billion for NIBL, from Rs. 19.53 to Rs. 24.40 Billion for SCBL, from Rs. 32.84 to Rs. 39.64 Billion for HBL, from Rs. 16.61 to Rs. 26.83 Billion for SBIBL, from Rs. 10.96 to Rs. 18.52 Billion for BOKL, from Rs. 7.18 to 17.24 Billion for NCCBL, from Rs. 14.29 to Rs. 22.79 Billion for MBL, from Rs. 7.23 to 15.92 Billion for KBL, from Rs. 9.52 to Rs. 24.76 Billion for SIDBL, from Rs. 20.4 to Rs.39.75 Billion for GIMEBL, from Rs. 6.05 to Rs. 13.58 Billion for CITBL, from Rs. 9.86 to Rs. 18.88 Billion for SUNBL in 2020 over 2014. Thus, the variation in saving deposit indicated by standard deviation (S. D.) is lowest for SCBL followed by HBL, BOKL, SBIBL, CITBL, MBL, NCCBL, SUNBL, NABL, KBL, NIBL,SIDBL, and GIMEBL.

When the saving deposit is compared over a period of time for individual banks, it is noticed that saving deposit has increased in most 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

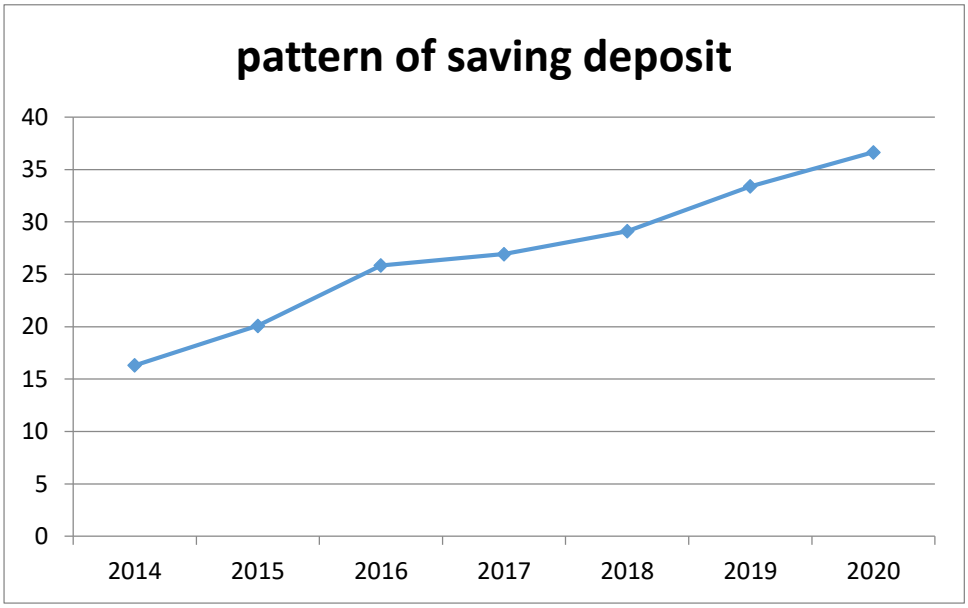


Figure 4.1 shows the comparative pattern of average saving deposit of commercial banks from 2014 to 2020. The graph shows that average saving deposit has increased from Rs. 16.31 billion in 2014 to Rs. 29.9 billion in 2020. The average saving deposit trend is upward sloping indicating the continuous increment in average saving deposit.

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

Table 4.2

Structure and pattern of fixed deposits of Nepalese commercial banks

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	11.85	15.87	8.86	24.04	45.01	64.78	77.97	35.48	27.50
NIBL	18.02	21.23	26.49	53.69	66.01	68.86	80.96	47.89	25.68
SCBL	3.08	3.12	3.22	23.09	24.73	23.97	23.68	14.98	11.09
HBL	13.59	10.31	16.76	37.41	13.01	49.97	56.89	28.28	19.48
SBIBL	28.57	19.13	23.02	41.78	44.26	56.13	62.27	39.31	16.48
BOKL	9.13	14.26	40.69	41.49	46.39	45.44	53.08	35.78	17.01
NCCBL	7.79	9.01	50.14	69.55	87.01	31.55	38.18	41.89	29.53
MBL	12.61	11.74	31.11	41.48	46.38	46.37	55.32	35.00	17.18
KBL	12.14	14.47	26.87	31.12	41.2	65.92	41.19	33.27	18.43
SIDBL	11.88	14.03	33.04	40.67	53.48	53.48	73.15	39.96	22.27
GIMEBL	19.54	19.42	51.28	53.36	60.42	60.41	109.76	53.46	30.50
CITBL	12.6	19.12	34.81	40.85	44.41	44.41	54.12	35.76	14.87
SUNBL	10.49	16.41	35.38	38.95	41.11	41.11	47.92	33.05	14.01
Mean	13.18	14.47	29.36	41.34	47.19	50.18	59.58		
SD	6.20	5.02	14.26	12.42	18.08	13.38	22.03		

Source: Annual report of selected sample banks

The structure and pattern of fixed deposits for Nepalese commercial banks indicated that average fixed deposit is highest for GIMEBL (Rs. 53.46 Billion), followed by NIBL (Rs. 47.89 Billion), NCCBL (Rs. 41.89 Billion), SIDBL (Rs. 39.96 Billion), SBIBL (Rs. 9.31 Billion), BOKL (Rs. 35.78 Billion), CITBL (Rs. 35.76 Billion),

NABL (Rs. 35.48 Billion), MBL (Rs. 35 Billion), KBL (Rs. 33.27 Billion), SUNBL (Rs. 33.05 Billion), HBL (Rs. 28.28 Billion), SCBL (Rs. 14.98 Billion). The average fixed deposit computed across the year fluctuated over a period of time, it increased from Rs.13.18 Billion in 2014 to Rs.59.58 Billion in 2020.

According to the table, fixed deposit has increased within the individual banks also. It increased from Rs. 11.85 to Rs. 77.97 Billion for NABL, from Rs. 18.02 to Rs. 80.96 Billion for NIBL, from Rs. 3.08 to Rs. 23.68 Billion for SCBL, from Rs. 13.59 to Rs. 56.89 Billion for HBL, from Rs. 28.57 to Rs. 62.27 Billion for SBIBL, from Rs. 9.13 to Rs. 53.08 Billion for BOKL, from Rs. 7.79 to 38.18 Billion for NCCBL, from Rs. 12.61 to Rs. 55.32 Billion for MBL, from Rs. 12.14 to 41.19 Billion for KBL, from Rs. 11.88 to Rs. 73.15 Billion for SIDBL, from Rs. 19.54 to Rs.109.76 Billion for GIMEBL, from Rs. 12.6 to Rs. 54.12 Billion for CITBL, from Rs. 10.49 to Rs. 47.92 Billion for SUNBL in 2020 over 2014. Thus, the variation in fixed deposit indicated by standard deviation (S. D.) is lowest for SCBL followed by SUNBL, CITBL, SBIBL, BOK, MBL, KBL, HBL, SIDBL, NIBL, NABL, NCCBL and GIMEBL.

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

Figure 4.2
Average fixed deposits trend of Nepalese commercial banks

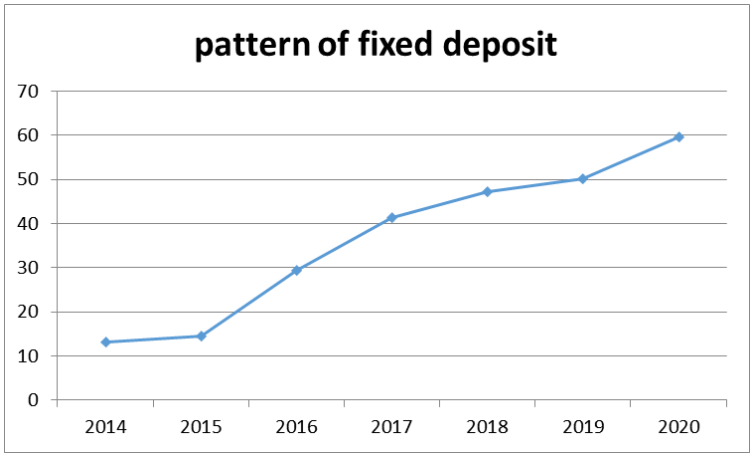


Figure 4.2 shows the comparative pattern of average fixed deposit of commercial banks from 2014 to 2020. The graph shows that average fixed deposit has increased from Rs. 13.18 billion in 2014 to Rs. 59.58 billion in 2020. Thus, the figure indicates that average fixed deposit for all types of banks is 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 2014 to 2020 (Rs. in Billion)

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	9.71	12.93	17.9	18.47	17.33	17.68	18.15	16.02	3.36
NIBL	10.32	11.74	13.87	8.99	11.22	16.11	21.11	13.34	4.15
SCBL	13.77	17.14	11.33	12.42	15.53	15.99	20.65	15.26	3.13
HBL	6.42	8.48	8.38	8.66	9.6	8.79	11.99	8.91	1.67
SBIBL	4.12	4.82	6.19	6.87	7.13	5.38	5.63	5.73	1.08
BOKL	3.25	3.79	5.57	5.78	6.01	6.612	5.91	5.27	1.25
NCCBL	0.83	0.97	14.26	14.33	18.34	6.89	6.67	8.90	6.88
MBL	1.26	1.6	2.04	2.51	3.45	3.446	5.421	2.82	1.42
KBL	1.24	1.46	1.72	2.69	3.8	3.79	12.145	3.84	3.81
SIDBL	2.17	2.59	3.72	8.74	9.85	9.84	10.12	6.72	3.70
GIMEBL	2.43	3.29	4.32	7.09	7.95	7.94	14.76	6.83	4.16
CITBL	0.78	1.09	1.44	2.56	3.45	3.44	4.24	2.43	4.16
SUNBL	0.8	1.26	1.86	3.61	4.29	3.44	5.85	3.02	1.80
Mean	4.39	5.47	7.12	7.90	9.07	8.41	10.97		
SD	4.32	5.36	5.55	4.88	5.24	5.13	6.06		

Source: Annual report of selected sample banks

The structure and pattern of current deposits for Nepalese commercial banks indicated that average current deposit is highest for NABL (Rs. 16.02 Billion), followed by SCBL (Rs. 15.26 Billion), NIBL (Rs. 13.34 Billion),HBL (Rs. 8.91 Billion), NCCBL (Rs. 8.90 Billion), GIMEBL (Rs. 6.83 Billion), SIDBL (Rs. 6.72 Billion), SBIBL (Rs. 5.73 Billion), BOKL (Rs. 5.27 Billion), KBL (Rs. 3.84 Billion), SUNBL (Rs. 3.02 Billion), MBL (Rs. 2.82 Billion), CITBL (Rs. 2.43 Billion). The average current deposit computed across the year fluctuated over a period of time, it increased from Rs.4.39 Billion in 2014 to Rs. 10.97 Billion in 2020.

According to the table, current deposit has increased within the individual banks also. It increased from Rs. 9.71 to Rs. 18.15 Billion for NABL, from Rs. 10.32 to Rs. 21.11 Billion for NIBL, from Rs. 13.77 to Rs. 20.65 Billion for SCBL, from Rs. 6.42 to Rs. 11.99 Billion for HBL, from Rs. 4.12 to Rs. 5.63 Billion for SBIBL, from Rs. 3.25 to Rs. 5.91 Billion for BOKL, from Rs. 0.83 to 6.67 Billion for NCCBL, from Rs. 1.26 to Rs. 5.42 Billion for MBL, from Rs. 1.24 to 12.14 Billion for KBL, from Rs. 2.17 to Rs. 10.12 Billion for SIDBL, from Rs. 2.43 to Rs.14.76 Billion for GIMEBL, from Rs. 0.78 to Rs. 4.24 Billion for CITBL, from Rs. 0.8 to Rs. 5.85 Billion for SUNBL in 2020 over 2014. Thus, the variation in current deposit indicated by standard deviation (S. D.) is lowest for MBL followed by SBI, BOKL, MBL, HBL,SUNBL,SCBL, NABL, SIDBL, KBL, NIBL, GIMEBL,CITBL and NCCBL.

The current deposit is compared over a period of time for individual banks, it is noticed that current deposit has increased in most 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:

Average current deposits trend of Nepalese commercial banks

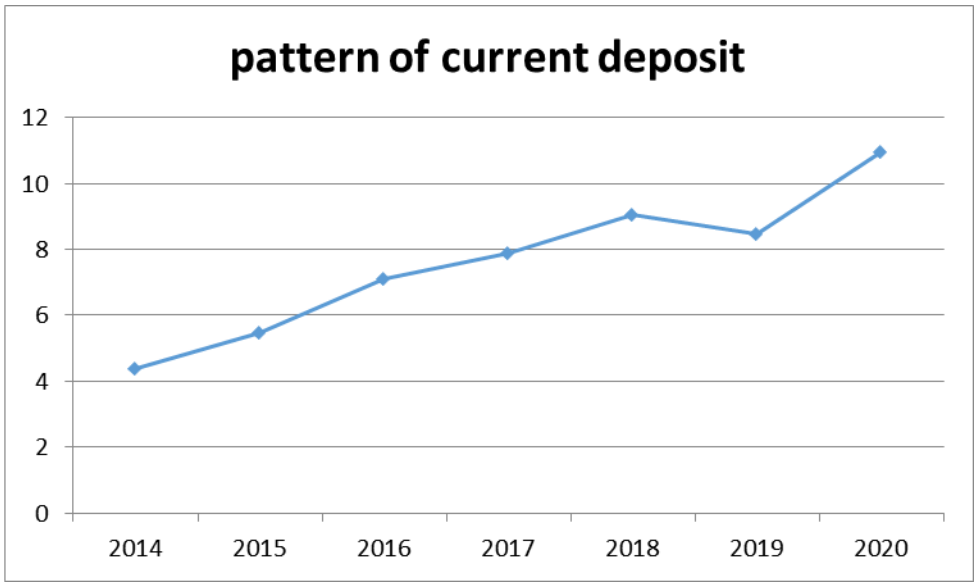


Figure 4.3 shows the comparative pattern of average current deposit of commercial banks from 2012 to 2018. The graph shows that average current deposit has increased from Rs. 3.13 billion in 2012 to Rs. 9.07 billion in 2018. Thus, the figure indicates that average current deposit for all types of banks is increasing over the study period.

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

Table 4.4

Structure and pattern of saving deposit rate of Nepalese commercial banks for the period of 2014 to 2020 (in percentage)

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	2.3	2.4	3.2	3.75	3	4.25	1.75	2.95	0.87
NIBL	2	2.5	3.1	3.5	3.5	3.5	2.25	2.91	0.65
SCBL	0.75	0.75	1	1.25	2	3.25	1.75	1.54	0.89
HBL	2	1	1.25	1.75	2.5	4.5	2.25	2.18	1.15
SBIBL	1.5	1	2.75	3.75	2.25	4.25	1.75	2.46	1.19
BOKL	2	1.5	2.15	2.75	3.5	3.5	2.25	2.52	0.76
NCCBL	2	1.5	3.75	5	7	4.5	3.00	3.82	1.89
MBL	1.5	1.5	2.15	3.5	4	3.25	2.25	2.59	0.99
KBL	1.5	1.5	2.15	3.5	6	5.25	2.00	3.13	1.84
SIDBL	1.75	1.5	2.1	3.75	5	7	2.5	3.37	2.02
GIMEBL	1.5	1.5	2.2	3.5	4	5.5	2.5	2.96	1.46
CITBL	1.5	1.5	2.15	3.75	6	3.5	2.75	3.02	1.59
SUNBL	1.5	2	2.2	3.25	4	3.5	2.5	2.71	0.90
Mean	1.68	1.55	2.32	3.31	4.06	4.29	2.27		
SD	0.39	0.51	0.75	0.95	1.55	1.10	0.39		

Source: Annual Reports of selected sample banks

The structure and pattern of saving deposit rate for Nepalese commercial banks indicated that average saving deposit rate is highest for NCCBL (3.82 percent), followed by SIDBL(3.37 percent),KBL (3.13percent),CITBL(3.02 percent),GIMEBL (2.96 percent), NABL(2.95 percent),NIBL (2.91 percent),SUNBL (2.71 percent), MBL (2.59 percent), BOKL (2.52 percent), SBIBL (2.46 percent), HBL (2.18 percent) and SCBL (1.54 percent). The average saving deposit rate computed across the year is fluctuated over a period of time. In 2014, average saving deposit rate is 1.68 percent then decreased to 1.55 percent in 2015. Similarly, in 2016 average deposit rate is 2.32

percent then increased to 4.06 percent in 2018.similarly 4.29 percent in 2019 then decreased to 2.27 percent?

According to the table, saving deposit rate is widely varies within the individual banks also. It increased from 2.3 to 1.75 percent for NABL, from 2 to 2.25 percent for NIBL, from 0.75 to 1.75 percent for SCBL, from 1.5 to 1.75 percent for SBIBL, from 2.00 to 2,52 percent for BOKL, from 2.00 to 3.00 percent for NCCBL, from 1.50 to 2.25 percent for MBL, from 1.50 to 2.00 percent for KBL, from 1.75 to 2.5 percent for SIDBL, from 1.50 to 2.50 percent for GIMEBL, from 1.50 to 2.75 percent for CITBL, from 1.50 to 2.50 percent for SUNBL. Similarly, deposit rate is 2.00 to 2.25for HBL. Thus, the variation in saving deposit rate indicated by standard deviation (S. D.) is lowest for NIBL followed by BOKL, NABL, SCBL, SUNBL, MBL, HBL, SBIBL, GIMEBL, CITBL, KBL, NCCBL and SIDBL.

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

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

Figure 4.4

Comparative pattern of average saving deposits rate of selected Nepalese commercial banks

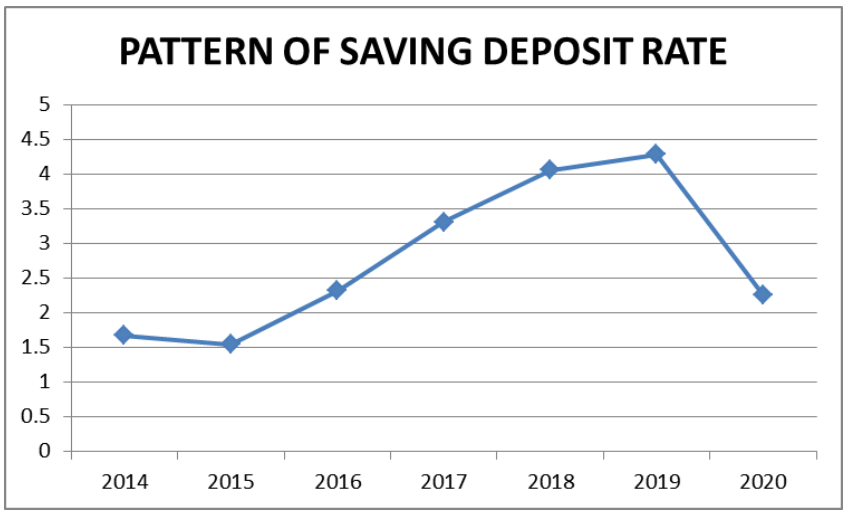


Figure 4.4 shows the comparative pattern of average saving deposit rate of commercial banks from 2014 to 2020. The figure indicates that average deposit rate for all types of banks is fluctuated over the study period. In 2014, average saving deposit rate is 1.68 percent then increased to 2.28 percent in 2020.

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

Table 4.5

Structure and pattern of fixed deposit rate of Nepalese commercial banks for the period of 2014 to 2020 (in percentage)

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	4.3	3.8	5.2	9	10.5	10.5	6.5	7.11	2.87
NIBL	3	3	6.15	8.5	9	10.25	7	6.70	2.85
SCBL	1.75	2	5.5	7.5	10	10.25	6.5	6.21	3.43
HBL	3	3	6.1	10	9	11	7	7.01	3.21
SBIBL	2	3	6.15	8.5	10.5	10.5	6.5	6.74	3.37
BOKL	3	3	6.1	10	10.5	10.5	6.25	7.05	3.34
NCCBL	3.5	3	6.15	10	10.5	10.5	7	7.24	3.22
MBL	3	3	6.15	9	10.5	10.5	7	7.02	3.19
KBL	3	3	6.1	9	10.5	10.25	7	6.98	3.15
SIDBL	3	2.5	5.95	6	10.5	11	7	6.56	3.30
GIMEBL	3	2.25	5.85	10	10.5	10.5	7	7.01	3.50
CITBL	3	3	6.1	10	10.5	10.5	7.5	7.23	3.32
SUNBL	3	3	6.1	9.5	7.5	10.5	7	6.66	2.91
Mean	2.97	2.89	5.97	9.00	10.00	10.52	6.87		
SD	0.61	0.44	0.29	1.19	0.94	0.24	0.33		

Source: annual reports of selected sample banks

The structure and pattern of fixed deposit rate for Nepalese commercial banks indicated that average fixed deposit rate is highest for NCCBL (7.24 percent), followed by CITBL (7.23 percent),NABL (7.11 percent), BOK (7.05 percent) , MBL (7.02 percent), HBL and GIMEBL (7.01 percent), KBL(6.98 percent), SBIBL (6.74 percent), NIBL (6.70 percent) and SUNBL (6.66 percent),SIDBL(6.56),SCBL(6.21). The average fixed deposit rate computed across the year is fluctuated over a period of time. In 2014, average saving deposit rate is 2.97 percent then decreased to 2.89 percent in 2015. Similarly, in 2016 average deposit rate is 5.97 percent then increased to 10 percent in 2018 and decreased to 6.87 in 2020.

According to the table, fixed deposit rate is widely varying within the individual banks also. It increased from 4.3 to 6.5 percent for NABL, from 3.00 to 7.00 percent for NIBL, from 1.75 to 6.5 percent for SCBL, from 3 to 7 percent for HBL, from 2.00 to 6.50 percent for SBIBL, from 3.00 to 6.25 percent for BOKL, from 3.50 to 7.0 percent for NCCBL, from 3.00 to 7.00 percent for MBL, from 3.00 to 7.00 percent for KBL ,from 3.00 to 7.00 percent for SIDBL, from 3.00 to 7.00 percent for GIMEBL, from 3.00 to 7.50 percent for CITBL, from 3.00 to 7.00 percent for SUNBL in 2020 over 2014.Thus, the variation in saving deposit rate indicated by standard deviation (S. D.) is lowest for NIBL followed by NABL, SUNBL, KBL, MBL, HBL, NCCBL, SIDBL, CITBL, BOKL, SBIBL, SCBL 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 fluctuated 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 deposit rate of selected Nepalese commercial banks

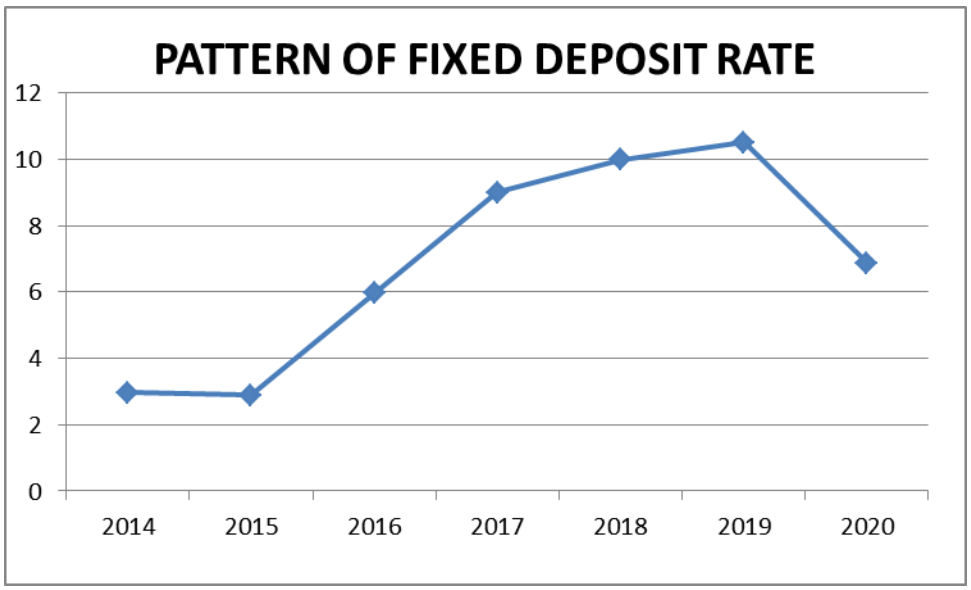


Figure 4.5 shows the comparative pattern of average fixed deposit rate of commercial banks from 2014 to 2020. The figure indicates that average fixed deposit rate for all types of banks are fluctuated over the study period. In 2014, average fixed deposit rate is 2.97 percent then decreased to 2.89 percent in 2015. Similarly, in 2016 average deposit rate is 5.97 percent then increased to 10.52 percent in 2020.

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 2014 to 2020 (in numbers)

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	51	55	52	52	74	118	119	74.43	31.14
NIBL	43	46	46	61	89	86	86	65.29	21.13
SCBL	15	12	19	15	14	14	15	14.86	2.12
HBL	42	42	45	45	58	64	69	52.14	11.31
SBIBL	56	56	73	66	83	88	88	72.86	14.01
BOKL	50	56	69	75	83	90	90	73.29	15.89
NCCBL	23	24	22	96	108	120	122	73.57	48.07
MBL	56	56	57	56	88	131	159	86.14	42.62
KBL	34	36	36	74	88	116	193	82.43	57.90
SIDBL	46	53	62	70	121	186	188	103.71	61.85
GIMEBL	84	88	87	113	132	138	257	128.43	60.82
CITBL	42	54	56	60	79	89	109	69.86	23.45
SUNBL	51	53	67	70	92	89	134	79.43	28.80
Mean	45.62	48.54	53.15	65.62	85.31	102.23	125.31		
SD	16.79	18.21	19.65	23.60	28.94	40.92	62.52		

Source: Annual report of selected sample bank

The structure and pattern of number of branches for Nepalese commercial banks indicated that average number of branches is highest for GIMEBL (128.43 number), followed by SIDBL (103.71 number), MBL (86.14 number), KBL (82.43 number), SUNBL (79.43 number), NABL (74.43 number), NCCBL (73.57 number), BOKL (73.29 number), SBIBL (72.86 number), CITBL (69.86 number), NIBL (45.43 number), HBL (52.14 number) and SCBL (14.86 number). The average number of branches found durring the study year has increased over a period of time. In 2014, average number of branches is 45.62 numbers then increased to 125.31 numbers in 2020.

According to the table, number of branches is increased within the individual banks also. It increased from 51 to 119 number for NABL, from 43 to 86 number for NIBL, from 42 to 69 number for HBL, from 56 to 88 number for SBIBL, from 50 to 90 number for BOKL, from 23 to 122 number for NCCBL, from 56 to 159 number for MBL, from 34 to 193 number for KBL, from 46 to 188 number for SIDBL, from 84 to 257 number for GIMEBL, from 42 to 109 number for CITBL and from 51 to 134 number for SUNBL. Similarly, number of branches same from 15 to 15 for SCBL in 2020 over 2014. Thus, the variation in number of branches indicated by standard deviation (S. D.) is lowest for SCBL followed by HBL, SBIBL, BOKL, NIBL, CITBL, SUNBL, NABL, MBL, NCCBL, KBL, GIMEBL and SIDBL.

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 except SCBL 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

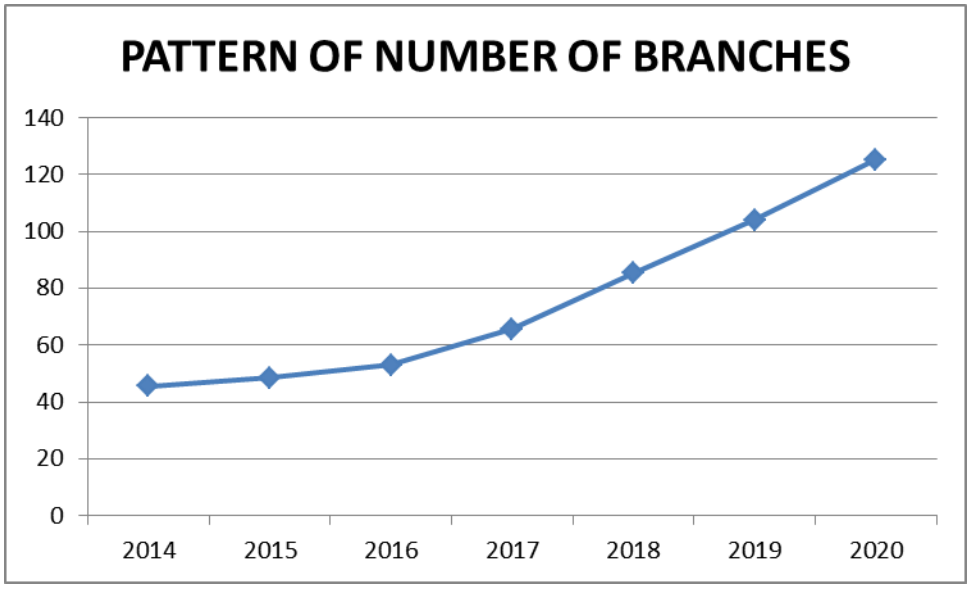


Figure 4.6 shows the comparative pattern of average number of branches of commercial banks from 2014 to 2020. The figure indicates that average number of branches for most selected banks is increased over the study period.

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 2014 to 2020 (in percentage)

Banks	2014	2013	2016	2017	2018	2019	2020	Mean	SD
NABL	2.65	2.06	2.32	2.69	2.61	2.11	1.58	2.29	0.40
NIBL	2.1	1.77	2	2.1	2.13	1.79	1.79	1.95	0.17
SCBL	2.51	1.9	1.98	1.84	2.61	2.61	1.71	2.17	0.39
HBL	1.22	1.32	1.94	2.19	1.67	1.69	1.67	1.67	0.33
SBIBL	1.5	1.7	1.59	1.57	1.97	1.94	1.17	1.63	0.27
BOKL	1.29	0.76	0.84	1.57	1.45	1.89	1.33	1.30	0.40
NCCBL	1.37	1.25	1.3	0.94	0.82	1.15	1.14	1.14	0.20
MBL	1.08	1.21	1.51	1.89	1.47	1.61	1.02	1.40	0.31
KBL	0.95	0.88	1.29	1.26	1.17	1.17	0.76	1.07	0.20
SIDBL	1.79	1.38	1.53	1.59	1.47	1.49	1.17	1.49	0.19
GIMEBL	1.58	1.41	1.75	1.63	1.82	1.82	1.06	1.58	0.27
CITBL	1.62	1.7	1.8	1.72	1.62	1.62	1.08	1.59	0.24
SUNBL	1.25	2.03	1.61	1.55	1.78	1.80	1.17	1.60	0.31
Average	1.61	1.49	1.65	1.73	1.74	1.75	1.28		
SD	0.53	0.41	0.38	0.43	0.51	0.38	0.31		

Source: banking and financial stability report of NRB

The structure and pattern of ROA for Nepalese commercial banks indicated that average ROA is highest for NABL (2.29 percent), followed by SCBL (2.17 percent), NIBL (1.95 percent), HBL (1.67 percent), SBIBL (1.63 percent), SUNBL (1.60 percent), CITBL (1.59 percent), GIMEBL (1.58 percent), SIDBL (1.49 percent), MBL (1.40 percent), BOKL (1.30 percent), NCCBL (1.14 percent) and KBL (1.07 percent). The average ROA computed across the year is fluctuated over a period of time. In 2014, average ROA is 1.61 percent then decreased to 1.49 percent in 2015. Similarly, in 2016 average ROA is 1.65 percent then increased to 1.75 percent in 2019 than decreased to 1.28 percent in 2020.

According to the table, ROA is widely varying within the individual banks also. It increased from 1.22 to 1.67 percent for HBL, from 1.29 to 1.33 percent for BOKL in 2020 over 2014.

Similarly, ROA is decreased from 2.65 to 1.58 percent for NABL, from 2.51 to 1.71 percent for SCBL, from 2.1 to 1.79 percent for NIBL, from 1.5 to 1.17 percent for SBIBL, from 1.37 to 1.14 percent for NCCBL and from 1.08 to 1.02 percent for MBL, from 0.95 to 0.75 for KBL, from 1.79 to 1.17 for SIDBL, from 1.58 to 1.06 for GIMEBL, from 1.62 to 1.08 for CITBL, from 1.25 to 1.17 for SUNBL in 2020 over 2014.Thus, the variation in ROA indicated by standard deviation (S. D.) is lowest for NIBL followed by SIDBL, NCCBL and KBL, CITBL, GIMEBL and SBIBL, MBL and SUNBL, HBL and SCBL, NABL and BOK.

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

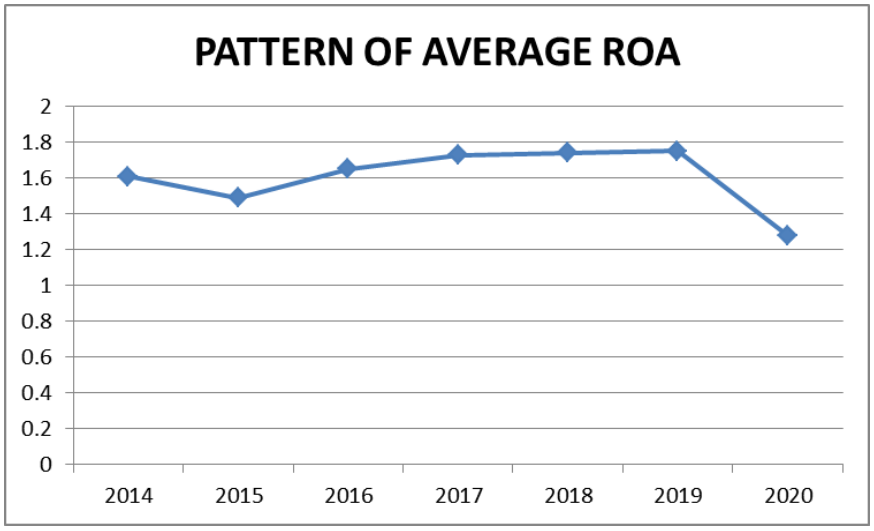


Figure 4.7 shows the comparative pattern of average ROA of commercial banks from 2014 to 2020. The figure indicates that average ROA for all types of banks is fluctuated

over the study period. The graph shows that ROA is highest in 2019 and it is lowest in 2020.

Table 4.8 shows the structure and pattern of money supply, population growth rate, consumer price index and gross domestic product.

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) (%)
2013/14	5.40	1.47	19.10	9.10
2014/15	3.40	1.45	19.90	7.20
2015/16	0.20	0.92	19.50	9.90
2016/17	7.74	1.35	15.50	4.50
2017/18	6.30	1.68	19.40	4.20
2018/19	7	1.83	15.8	6.16
2019/20	1.84	1.85	19.88	4.54

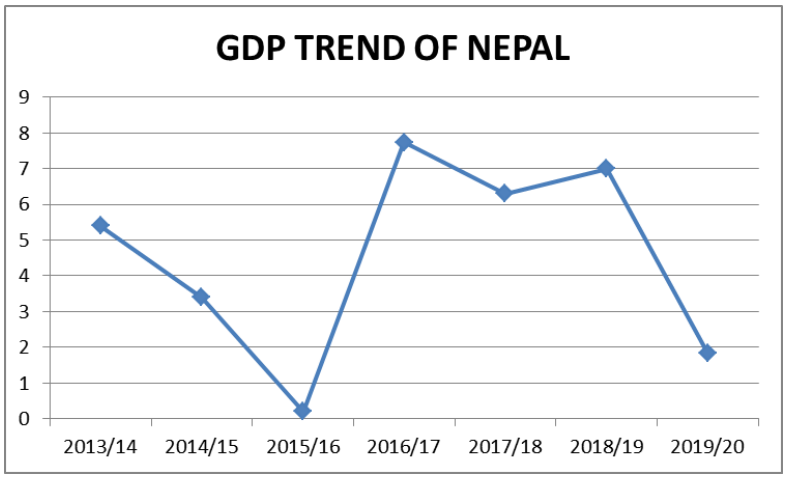
Sources: Central Bureau of Statistics, Nepal

The structure and pattern of macroeconomic variables reveals that the GDP is highest in 2016/17 and it is lowest in 2015/16. The GDP has fluctuated over the study period. Similarly, population growth rate is highest in 2019/20 and lowest in 2015/16. It has also fluctuated over the study period. This table also shows that money supply growth rate. It is highest in 2014/15 whereas it is lowest in 2016/17. Likewise, this table also shows that the CPI is highest in 2015/16 whereas it is lowest in 2017/18.

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

Figure 4.8

GDP trend of Nepal



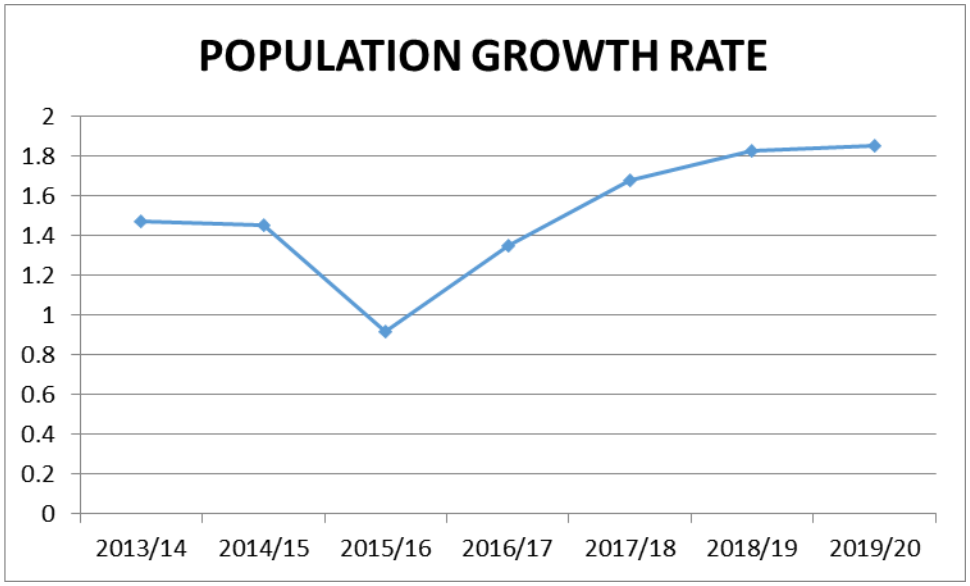
In the figure 4.8, the horizontal line shows the period from 2013/14 to 2019/20 and the vertical line shows the GDP in percentage. The graph shows that GDP is highest in 2017 and it is lowest in 2016.The GDP has decreased from 5.40 percent in year 2014 to 3.40 percent in year 2015 and to 0.2 percent in year 2016.then GDP has increased to 7.4 percent in year 2017 and it has decreased to 6.30 percent in 2018. However, GDP has increased to 7.00 percent in 2019 and decreased to 1.84 percent in 2020.Overall, the GDP trend is fluctuated 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 the period.

Figure 4.9 shows population growth rate trend over the study period

Figure 4.9

Population growth rate trend of Nepal



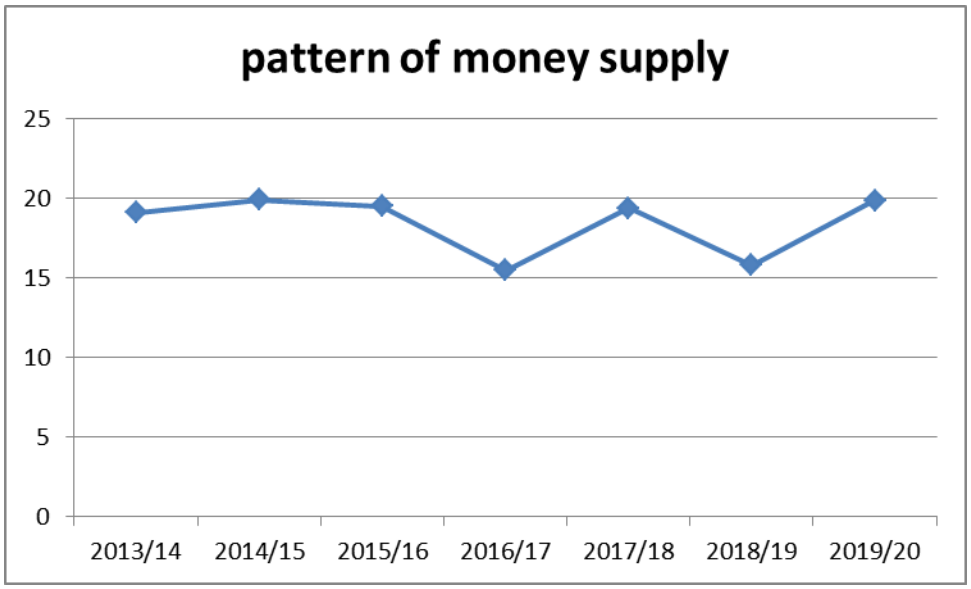
In the figure 4.9, the horizontal line shows the period from 2013/14 to 2019/20 and the vertical line shows the population growth rate in percentage. The graph shows that population growth rate is highest in 2020 and lowest in 2016.The graph shows that population growth rate has decreased from 1.47 percent in 2013/14 to 1.45 percent in 2014/15, decreased from 1.45 percent in 2014/15 to 0.92 percent in 2015/16, increased from 10.92 percent in 2015/16 to 1.35 percent in 2016/17 and 1.68 percent in 2017/18. Then after it started to increase and reached to 1.83 percent in 2018/19 and 1.85 in 2019/2020. The population growth rate trend is fluctuated over the study period.

Money supply is the total amount of monetary assets available in an economy at a specific time.

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

Figure 4.10

Money supply trend of Nepal



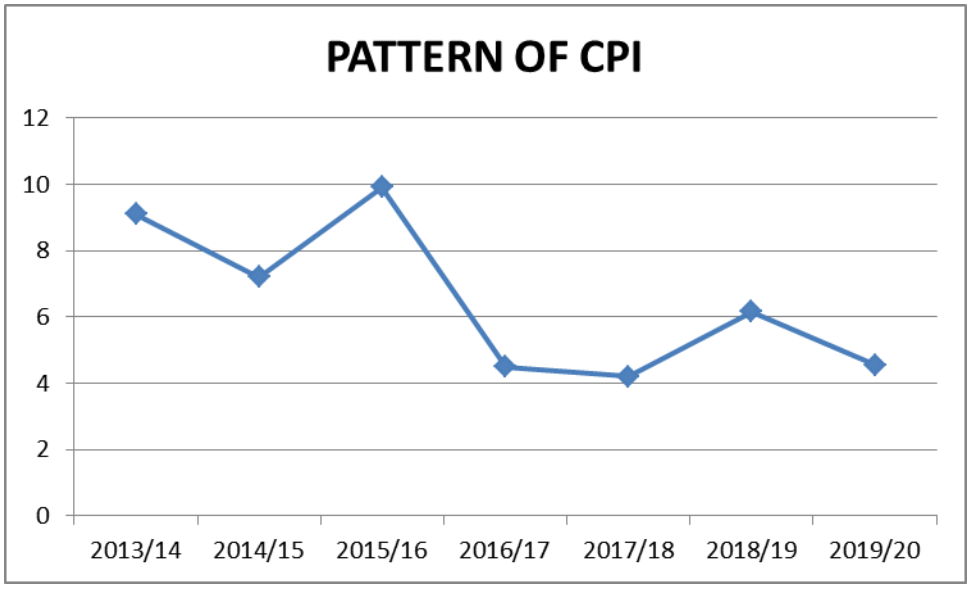
In the figure 4.10, the horizontal line shows the period from 2014/15 to 2019/20 and the vertical line shows the money supply in percentage. The graph shows that money supply is highest in 2015 and it is lowest in 2017.The money supply has increased from 19.1 percent in year 2014 to 19.9 percent in year 2015 but it has decreased to 19.5 percent in year 2016. Again, money supply has decreased to 15.5 percent in year 2017 and it has increased to 19.4 percent in 2018 then decrease to 15.8 in 2018 and increased to 19.88 in 2020. Overall, the money supply trend is fluctuated 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.

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

Figure 4.11

Consumer price index trend of Nepal



In the figure 4.11 the horizontal line shows the period from 2013/14 to 2019/20 and the vertical line shows the Consumer price index (CPI) in percentage. The graph shows that CPI is highest in 2016 and it is lowest in 2018.The CPI has decreased to 9.1 percent in year 2014 to 7.1 percent in year 2015 but it has increased to 9.9 percent in year 2016 and decreased to 4.5 percent in year 2017 and 4.2 in 2018. Again, CPI has increased to 6.16 percent in year 2019. Thereafter CPI has decreased to 4.5 percent in 2020. Overall, the CPI trend is fluctuated over the study period.

4.1.2 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 4.9summarizes the descriptive statistics for the commercial banks and macroeconomic variables used in this study during the period 2013/14 through 2019/20 for 13 commercial banks of Nepal.

Variables	Minimum	Maximum	Mean	Std. Deviation
SAVDEP	6.05	77.45	26.5886	12.91829
FIXDEP	3.08	109.76	36.4711	21.63810
CURDEP	.76	21.11	7.6300	5.46115
FDR	.75	7.00	2.7813	1.34795
NOB	1.75	11.00	6.8923	3.00362
SDR	12.00	257.00	75.3626	43.26726
ROA	.76	2.69	1.6067	.44358
GDP	.20	7.74	4.5543	2.81521
PGR	.92	1.85	1.5071	.32294
MS	15.50	19.90	18.4400	1.92783
CPI	4.20	9.90	6.5000	2.30677

Source: SPSS Output

The result shows the descriptive statistics of dependent and independent variables for the selected commercial banks and macroeconomic variables. Clearly, saving deposit ranges from a minimum of Rs. 6.05 billion to a maximum of Rs. 77.45 billion, leading to an average Rs. 26.58 billion. Likewise, the fixed deposit ranges from a minimum of Rs. 3.08 billion to a maximum of Rs. 109.76 billion, leading to an average Rs. 36.47 billion while the current deposit varies from a minimum of Rs. 0.76 billion to a maximum Rs. 21.11 billion, leading to an average of Rs. 7.63 billion.

The number of branches ranges from a minimum of 12 numbers to a maximum of 257 numbers, leading to an average 75.36 numbers while the saving deposit rate varies from a minimum of 0.75 percent to a maximum of 7.00 percent, leading to an average 2.78 percent. Similarly, fixed deposit rate varies from a minimum of 1.75 percent to a maximum of 11.00 percent, leading to an average 6.89 percent. Likewise, the ROA ranges from a minimum of 0.76 percent to a maximum of 2.69 percent, leading to an average 1.61 percent. The GDP varies from a minimum of 0.20 percent to a maximum of 7.74 percent, leading to an average 4.56 percent. Similarly, the population growth rate ranges from a minimum of 0.92 percent to a maximum of 1.86 percent, leading to an average 1.51 percent. The money supply varise from a minimum of 15.50 percent to

a maximum of 19.90 percent, leading to an average 18.44 percent. Likewise, the CPI ranges from a minimum of 4.20 percent to a maximum of 9.90 percent, leading to an average 6.50 percent.

4.1.3 Correlation analysis

Correlation is a statistical measure that indicates the extent to which two or more variables fluctuate together. It is used for checking directional relationship between variables. Having indicated the descriptive statistics, Pearson correlation coefficients are computed and the results are presented Table 4.10. More specifically, it shows the correlation coefficients of dependent and independent variables.

Table 4.10

Pearson correlation for selected commercial banks specific variables and macroeconomic variables

Variables	SAVDEP	FIXDEP	CURDEP	NOB	SDR	FDR	ROA	GDP	PGR	MS	CPI
SAVDEP	1.00										
FIXDEP	0.513	1.00									
CURDEP	0.682	0.31	1.00								
NOB	0.455	0.73	0.63	1.00							
SDR	0.164	0.565	0.153	0.44	1.00						
FDR	0.331	0.652	0.244	0.436	0.75	1.00					
ROA	0.331	-0.174	0.406	-0.35	-0.35	0.149	1.00				
GDP	-0.335	0.119	-0.28	0.26	0.37	0.65	0.55	1.00			
PGR	0.164	0.846	0.64	0.79	-0.18	0.46	-0.41	0.413	1.00		
MS	-0.131	-0.144	-0.358	-0.14	-0.83	-0.62	-0.31	-0.73	-0.12	1.00	
CPI	-0.421	-0.673	-0.527	-0.47	-0.08	-0.68	0.14	-0.49	-0.66	0.29	1.00

Source: SPSS Output

Table 4.10 shows the Pearson correlation coefficients for selected commercial banks specific variables and macroeconomic variables. The result reveals that saving deposit rate is positively correlated to saving deposit, which indicates that higher the saving deposit rate, higher would be the saving deposit. Similarly, 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. Similarly, the GDP is negative correlated to saving deposit which indicates that

decrease in GDP, leads to increase 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 and consumer price index has negative relationship with saving deposit indicating that decrease in money supply and consumer price index leads to increase in saving deposit.

The fixed deposit rate is positively correlated to fixed deposit. It shows that increase in fixed deposit rate leads to increase in fixed deposit. Similarly, number of branches is positively correlated to fixed deposit. It reveals that increase in number of branches leads to increase in fixed deposit. However, 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 positive relationship with fixed deposit proving that increase in population growth rate leads to increase in fixed deposit. Likewise, the GDP is positively correlated to fixed deposit which indicates that higher 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 negative correlated to current deposit which indicates that increase in the GDP, leads to decrease in 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. However, 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.

4.1.4 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.

Table 4.11

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

	Intercept	**Regression coefficients of**							**R^2**	**SEE**	**F**
Model		**SDR**	**NOB**	**ROA**	**GDP**	**PGR**	**MS**	**CPI**			
1	22.23	1.56							.027	11.39	2.44
2	16.35		.136						.207	11.57	23.18
3	12.03			9.06					.097	12.34	9.53
4	50.53				.90				.112	7.88	.633
5	40.55					3.87			.027	8.25	.138
6	55.95						-.51		.017	8.29	.087
7	55.44							-1.39	.177	7.589	1.075
8	-11.927	-1.2	.211	16.19					.474	9.53	26.09
9	104.94		.274	-6.13		-32.27		-2.501	.999	.344	738.55
10	55.056	5.714	.063		-2.94			-2.58	.935	3.376	7.173

Source: SPSS Output

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 positive. This indicates that an increase in saving deposit rate leads to increase in saving deposit. This finding is consistent with the findings of (Haron and Azmi, 2006). Similarly, the beta coefficient is positive for GDP. It states that higher the GDP, higher would be the saving deposit. This finding is also consistent with the findings of (Haron and Azmi, 2006). Likewise, the beta coefficient for CPI is negative this indicates that higher the CPI, lower would be the saving deposit.

The result of regression also reveals that the beta coefficient for number of branches and ROA 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 Valahzaghard and Kashfi (2014). Similarly, the positive beta coefficients of ROA indicate that higher the ROA of bank, higher would be the saving deposit. However, the negative beta coefficients of money supply indicate that lower the money supply, higher would be the saving deposit this finding is consistent with the findings of Agrawal (2001). Similarly, the positive beta coefficient of population growth rate indicates that higher the population growth rate, higher would be saving deposit.

Table 4.12 shows the estimated regression results of fixed deposit rate, number of branches, and return on assets, gross domestic product, population growth rate, money supply and consumer price index on fixed deposit

Table 4.12

Estimated regression results of FDR, NOB, ROA, GDP, PGR, MS and CPI on FIXDEP

Model	Intercept	Regression coefficients of							R^2	SEE	F
		FDR	NOB	ROA	GDP	PGR	MS	CPI			
1	4.121	4.69							.425	16.50	65.64
2	8.975		.365						.532	14.88	101.26
3	50.14			-8.51					.030	21.42	2.79
4	30.20				1.158				.014	29.91	.071
5	-73.1					72.07			.716	16.04	12.63
6	73.37						-2.05		.021	29.80	.106
7	87.60							-8.018	.452	22.29	4.131
8	-73.9	2.31	.770				1.93		.957	8.061	22.27
9	38.321	4.7		-38.2		32.96		.155	.953	10.34	10.108
10	-39.8	-1.91	.996	-1.91	-1.86	-.788		-5.103	1.00	9.53	38.20

Source: SPSS Output

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).

The result of regression also reveals that the beta coefficient for deposit rate, ROA, CPI and MS 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). Similarly, the negative beta coefficient of ROA indicates that higher the ROA of bank, lower would be the fixed deposit. Similarly, the negative beta coefficient of money supply indicates that higher the money supply, lower would be the fixed deposit. This finding is contradicting with the findings of Ostadi and Sharlak (2014). Likewise, the positive beta coefficient of population growth rate indicates that higher the population growth rate, higher would be fixed deposit. Similarly, the positive beta coefficient of

GDP indicates that higher the GDP, higher would be fixed deposit. This finding is contradicting with the findings of (Haron and Azmi, 2006).

Table 4.13 shows the estimated regression results of number of branches, return on assets, gross domestic product, population growth rate, money supply and consumer price index on current deposit

Table 4.13

Estimated regression results of NOB, ROA, GDP, PGR, MS and CPI on current deposit

Model	Intercept	Regression coefficients of						R^2	SEE	F
		NOB	ROA	GDP	PGR	MS	CPI			
1	7.031	.008						.004	5.48	.354
2	-.411		5.005					.165	5.01	17.61
3	16.176			-.033				.001	3.68	.004
4	15.025				.663			.663	3.67	.020
5	27.55					-.625		.128	3.44	.737
6	21.016						-.768	-.768	3.13	1.919
7	24.39	.026				-.383	-.502	.368	3.78	.583
8	40.557		4.682	-1.856	8.222	-2.125		.398	4.52	.33
9	27.509					-.386	-.672	.322	3.39	.949

Source: SPSS Output

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, and CPI are negative the negative beta coefficient of CPI indicates that higher the CPI, lower would be the current deposit. Likewise, the negative beta coefficient of money supply indicates that higher the money supply, lower would be the current deposit. beta coefficient for GDP is negative the negative beta coefficient of GDP indicates that lower the GDP, higher would be 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). 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 indicate that higher the population growth rate, higher would be current deposit and this finding is consistent with the findings of Varman (2005).

4.2 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 13 Nepalese commercial banks.

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

i. The structure and pattern analysis of saving deposit shows that NABL has highest average saving deposit (Rs. 46.39 Billion) and lowest for CITBL (Rs. 13.58 Billion). It has been found that saving deposit has increased in the majority of the selected commercial banks during the study period.

ii. The average fixed deposit is highest for GIMEBL (Rs. 53.46 Billion) and lowest for SCBL (Rs. 14.98 Billion). It has been found that fixed deposit has increased in the majority of the selected commercial banks during the study period.

iii. The average current deposit is highest for NABIL (Rs. 13.63 Billion) and lowest for CITBL (Rs. 2.43 Billion). It has been found that current deposit has increased in the majority of the selected commercial banks during the study period.

iv. The average saving deposit rate is highest for NCCBL (3.82 percent) and lowest for SCBL (1.54 percent). It has been found that saving deposit rate has fluctuated in the majority of the selected commercial banks during the study period.

v. The average fixed deposit rate is highest for NCCBL (7.24 percent) and lowest for SCBL (6.21 percent). It has been found that fixed deposit rate has fluctuated in the majority of the selected commercial banks during the study period.

vi. The average number of branches is highest for GIMEBL (128.43 number) and lowest for SCBL (14.86 number). It has been found that number of branches has increased in the majority of the selected commercial banks during the study period.

vii. The average ROA is highest for NABL (2.29 percent) and lowest for KBL (1.07 percent). It has been found that ROA has fluctuated in the majority of the selected commercial banks during the study period.

viii. The pattern of macroeconomic variables reveals that the GDP is highest in 2016/17 and it is lowest in 2015/16 and population growth rate is highest in 2019/20 and lowest in 2015/16.

ix. Similarly, money supply rate is highest in 2014/15 whereas it is lowest in 2016/17 and CPI is highest in 2015/16 whereas it is lowest in 2017/18.

x. The descriptive analysis shows that average saving deposit, fixed deposit and current deposit of selected commercial banks are Rs. 26.588 billion, Rs.36.471 billion and Rs 7.63 billion respectively.

xi. The analysis also indicates that the average of saving deposit rate, fixed deposit rate and number of branches for selected commercial banks are 2.78 percent, 6.89 percent and 54.6 numbers respectively.

xii. Similarly, the analysis denotes that the mean of ROA for selected commercial banks is 1.61 percent.

xiii. Additionally, the analysis denotes that the mean of population growth rate and money supply for Nepal are 1.51 percent and 18.44 percent respectively.

xiv. The analysis denotes that the mean consumer price index and GDP for Nepal are 6.50 percent and 4.55 percent respectively.

xv. The correlation analysis reveals that saving deposit and fixed deposit are positively correlated to saving deposit rate and fixed deposit rate with value 0.164 and 0.565 respectively. Similarly, the saving deposit, fixed deposit and current are positively correlated to number of branches with value 0.455, 0.73 and 0.63 respectively.

xvi. Similarly, the result shows that the saving deposit, fixed deposit and current are negatively correlated to consumer price index with value -0.421, -0.673 and -0.527 respectively.

xvii. Likewise, saving deposit and current deposit is positively correlated to ROA with value of 0.331 and 0.41 respectively while fixed deposit is negatively related to ROA with value of 0.174.

xviii. The correlation analysis also shows that fixed deposit is positively correlated to GDP with value 0.119 and saving and current deposit are negatively correlated to GDP with value -0.335,-0.28 respectively.

xix. Likewise, fixed deposit and current deposit and saving deposit are positively related to population growth rate with value 0.846, 0.64 and 0.164 respectively.

xx. Fixed deposit, saving deposit and current deposit are negatively correlated to money supply with value of - 0.144, -0.131 and -0.358 respectively.

xxi. The regression result reveals that the saving and fixed deposit rate has positive impact on banks saving deposit and fixed deposit with value of 1.56 and 4.69 respectively, which indicates higher the deposit rate, higher would be the saving deposit and fixed deposit.

xxii. Likewise, number of branches has positive impact on banks saving deposit, fixed deposit and saving deposit with value of 0.136, 0.365, and 0.08 which indicates an increase in number of branches leads to increase in banks deposit.

xxiii. Similarly, regression result also reveals that the ROA has positive impact on saving deposit and current deposit with value 9.06 and 5.005 respectively, which indicates that higher the ROA, higher would be the saving and current deposit. Similarly, ROA has significantly impact on current deposit. Whereas it is negatively related to fixed deposit with value -8, 51. It indicates that higher the ROA, lower would be fixed deposit.

xxiv. In addition, population growth rate has positive and significant impact on fixed deposit and current deposit and saving deposit with value 72.07 and 0.663, 3.87 respectively. Which indicates that higher the population growth rate, higher would be the fixed, saving and current deposit.

xxv. GDP rate has positive impact on saving deposit, fixed deposit with value of 0.90 and 1.158. The positive beta coefficient of GDP concludes that higher the GDP, higher would be the saving deposit. Whereas GDP has negative impact on current deposit with value of -0.033.The negative beta coefficient of GDP conclude that lower GDP higher would be the current deposit.

xxvi. Likewise, number of branches has positive impact on saving deposit, fixed deposit and current deposit with value 0.28, 2.23 and 0.17. It indicates that higher the number of branches, higher would be the saving deposit, fixed deposit and current deposit.

xxvii. Money supply has negative impact on saving deposit, fixed deposit and current deposit with value of -0.51, -2.05 and -0.625. The negative beta coefficient of money supply concludes that higher the money supply, lower would be the saving deposit, current deposit and fixed deposit.

xxviii. Additionally, the consumer price index has negative impact on saving deposit, current deposit and fixed deposit with value of -1.39, -8.11, -0.768 showing that the higher the consumer price index, lower would be the saving deposit, current deposit and fixed deposit.

4.3 Discussion

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 these 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 area. 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 factors for commercial banks deposits and found that there is opposite correlation between deposit and interest rate. Similarly, Athukorala and Sen (2003) found positive raltionship 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, 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 13 Nepalese commercial banks for the period of 2013/14 -2019/120. 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.

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, saving deposit rate, fixed deposit rate, and GDP. This finding is consistence with findings of chu and huan (1998) and khaniya (2014).

However, money supply and CPI have negative relationship with the bank's deposit. This finding is consistence with findings of Larbi-Siaw and Lawer (2015). Similarly, population growth rate has positive relationship with current deposit, fixed deposit and saving deposit and ROA have positive relationship with saving and current deposit whereas negative relationship with fixed deposit.

CHAPTER 5
CONCLUSIONS

5.1 Summary

This chapter provides the brief summary of the entire study and highlights the major findings of the study. First chapter carried out introdution of bank deposit, objectives of overall study, significance, problem and the limitation of the study.

Second chapter carried breif study of existing and pior empirical reseach related of the study and under the studies and arcticles helps to know the previous research in Nepal and other country. The study atempt to explore the various factor affecting deposit of Neplease commercial bank.

Third chapter describes the method, process applied in the entire study and helps to resolve the systematic problem. Research methodology is used to collect information and data and set out overall plan.

Forth chapter helps to analyze and interpret the data collected during the study. Various statistical tools is used. Structure and pattern, descriptive statistics, correlation regression are used to analysis the data.

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.

5.2 Conclusion

As per objectives and analysis of the study the following conclusion have been drawn..

Regarding to the first objectives the trend of total deposit of all commercial bank has increased in the study time periods. In this periods NIBL, SIDBL, NCCBL, GIMEBL has higher total deposit. SBIBL, NABL, BOK, CITBL, MBL, has moderate total deposit and SCBL, HBL, KBL SUNBL has comparatively lower total deposit in the study time.

Regarding to the second objectives bank specific variables (saving deposit rate, fixed deposit rate, number of branches and return on assets) are fluctuated over the study time period and significantly impact on total bank deposit. Saving and fixed deposit rate, number of branches has positive and highly impact on total deposit (saving current and fixed) whereas return on assets has moderate and less impact on total deposit of Nepalese commercial bank.

Regarding to the third objectives macroeconomic variables (population growth rate, money supply, gross domestic product, consumer price index) also impact on total deposit of commercial bank in the study time period. Gross domestic product and return on assets has positive and significant impact on current saving and fixed deposit. Whereas money supply, consumer price index (moderately roa on fixed) have negatively impact on total bank deposit.

5.3 Implications

5.3.1 General implication

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

i. The study observed a positive relationship of deposit rate with saving deposit and fixed deposit. Hence, the commercial banks willing to increase saving deposit and fixed deposit should increase saving deposit rate and fixed deposit rate.
ii. The study revealed that there is a positive relationship of the ROA with saving deposit and current deposit. Hence, the banks willing to increase saving deposit and current deposit should increase the ROA.
iii. The study also found that there is negative relationship of ROA with fixed deposit. Hence, the banks willing to increase fixed deposit should decrease ROA.
iv. The study observed negative relationship of money supply with saving deposit, current deposits and fixed deposits. Hence, banks willing to increase the saving deposit, current deposits and fixed deposits should use the tools of money supply to control the money supply.

5.3.2 Implications for future studies

i. This result is basically from the commercial bank of Nepal. Thus, the future study may include other financial sector such as development bank, finance companies, and micro finance, companies.

ii. The sample size and time period taken for the study is limited so future study can be conducted by taking large sample size for longer time period. The model used in this study is limited on simple linear regression models. Thus, other models can be taken to examine the Credit risk management and banks performance.

iii. 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.

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

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APPENDIX

Appendix I: saving deposits of Nepalese commercial banks for the period of 2014 to 2020 (Rs in Billion)

Banks	2014	2015	2016	2017	2018	2019	2020
NABL	32.6	42.72	50.4	48.13	44.14	49.87	56.88
NIBL	25.02	31.73	39.42	36.61	39.38	41.06	56.88
SCBL	19.53	23.48	26.91	22.8	22.99	25.56	29.52
HBL	32.84	38.73	46.43	38.13	39	38.49	43.83
SBIBL	16.61	21.49	26.83	28.66	28.64	31.05	34.55
BOKL	10.96	12.69	17.64	20.06	21.43	21.42	25.46
NCCBL	7.18	8.32	18.72	21	22.23	20.84	22.42
MBL	14.29	17.86	19.3	21.79	26.59	26.59	33.13
KBL	7.23	8.01	13.1	16.33	18	18	30.78
SIDBL	9.52	12.42	17.62	26.04	33.33	33.32	41.04
GIMEBL	20.4	25.11	32.7	37.14	42.74	42.74	77.45
CITBL	6.05	7.6	10.62	13.61	16.79	16.79	23.58
SUNBL	9.86	11.04	16.38	19.79	23.31	23.31	28.5

Appendix II: fixed deposits of Nepalese commercial banks for the period of 2014 to 2020 (Rs in Billion)

Banks	2014	2015	2016	2017	2018	2019	2020
NABL	11.85	15.87	8.86	24.04	45.01	64.78	77.97
NIBL	18.02	21.23	26.49	53.69	66.01	68.86	80.96
SCBL	3.08	3.12	3.22	23.09	24.73	23.97	23.68
HBL	13.59	10.31	16.76	37.41	13.01	49.97	56.89
SBIBL	28.57	19.13	23.02	41.78	44.26	56.13	62.27
BOKL	9.13	14.26	40.69	41.49	46.39	45.44	53.08
NCCBL	7.79	9.01	50.14	69.55	87.01	31.55	38.18

MBL	12.61	11.74	31.11	41.48	46.38	46.37	55.32
KBL	12.14	14.47	26.87	31.12	41.2	65.92	41.19
SIDBL	11.88	14.03	33.04	40.67	53.48	53.48	73.15
GIMEBL	19.54	19.42	51.28	53.36	60.42	60.41	109.76
CITBL	12.6	19.12	34.81	40.85	44.41	44.41	54.12
SUNBL	10.49	16.41	35.38	38.95	41.11	41.11	47.92

Appendix III: Current deposits of Nepalese commercial banks for the period of 2014 to 2020 (Rs. in Billion)

Banks	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
NABL	9.71	12.93	17.9	18.47	17.33	17.68	18.15
NIBL	10.32	11.74	13.87	8.99	11.22	16.11	21.11
SCBL	13.77	17.14	11.33	12.42	15.53	15.99	20.65
HBL	6.42	8.48	8.38	8.66	9.6	8.79	11.99
SBIBL	4.12	4.82	6.19	6.87	7.13	5.38	5.63
BOKL	3.25	3.79	5.57	5.78	6.01	6.612	5.91
NCCBL	0.83	0.97	14.26	14.33	18.34	6.89	6.67
MBL	1.26	1.6	2.04	2.51	3.45	3.446	5.421
KBL	1.24	1.46	1.72	2.69	3.8	3.79	12.145
SIDBL	2.17	2.59	3.72	8.74	9.85	9.84	10.12
GIMEBL	2.43	3.29	4.32	7.09	7.95	7.94	14.76
CITBL	0.78	1.09	1.44	2.56	3.45	3.44	4.24
SUNBL	0.8	1.26	1.86	3.61	4.29	3.44	5.85

Appendix IV: saving deposit rate of Nepalese commercial banks for the period of 2014 to 2020 (in percentage)

Banks	2014	2015	2016	2017	2018	2019	2020	Mean	SD
NABL	2.3	2.4	3.2	3.75	3	4.25	1.75	2.95	0.87
NIBL	2	2.5	3.1	3.5	3.5	3.5	2.25	2.91	0.65
SCBL	0.75	0.75	1	1.25	2	3.25	1.75	1.54	0.89
HBL	2	1	1.25	1.75	2.5	4.5	2.25	2.18	1.15
SBIBL	1.5	1	2.75	3.75	2.25	4.25	1.75	2.46	1.19
BOKL	2	1.5	2.15	2.75	3.5	3.5	2.25	2.52	0.76
NCCBL	2	1.5	3.75	5	7	4.5	3.00	3.82	1.89
MBL	1.5	1.5	2.15	3.5	4	3.25	2.25	2.59	0.99
KBL	1.5	1.5	2.15	3.5	6	5.25	2.00	3.13	1.84
SIDBL	1.75	1.5	2.1	3.75	5	7	2.5	3.37	2.02
GIMEBL	1.5	1.5	2.2	3.5	4	5.5	2.5	2.96	1.46
CITBL	1.5	1.5	2.15	3.75	6	3.5	2.75	3.02	1.59
SUNBL	1.5	2	2.2	3.25	4	3.5	2.5	2.71	0.90

Appendix V: fixed deposit rate of Nepalese commercial banks for the period of 2014 to 2020 (in percentage)

Banks	2014	2015	2016	2017	2018	2019	2020
NABL	4.3	3.8	5.2	9	10.5	10.5	6.5
NIBL	3	3	6.15	8.5	9	10.25	7
SCBL	1.75	2	5.5	7.5	10	10.25	6.5
HBL	3	3	6.1	10	9	11	7
SBIBL	2	3	6.15	8.5	10.5	10.5	6.5
BOKL	3	3	6.1	10	10.5	10.5	6.25
NCCBL	3.5	3	6.15	10	10.5	10.5	7
MBL	3	3	6.15	9	10.5	10.5	7
KBL	3	3	6.1	9	10.5	10.25	7
SIDBL	3	2.5	5.95	6	10.5	11	7
GIMEBL	3	2.25	5.85	10	10.5	10.5	7
CITBL	3	3	6.1	10	10.5	10.5	7.5
SUNBL	3	3	6.1	9.5	7.5	10.5	7

Appendix VI: number of branches of Nepalese commercial banks for the period of 2014 to 2020 (in numbers)

Banks	2014	2015	2016	2017	2018	2019	2020
NABL	51	55	52	52	74	118	119
NIBL	43	46	46	61	89	86	86
SCBL	15	12	19	15	14	14	15
HBL	42	42	45	45	58	64	69
SBIBL	56	56	73	66	83	88	88
BOKL	50	56	69	75	83	90	90
NCCBL	23	24	22	96	108	120	122
MBL	56	56	57	56	88	131	159
KBL	34	36	36	74	88	116	193
SIDBL	46	53	62	70	121	186	188
GIMEBL	84	88	87	113	132	138	257
CITBL	42	54	56	60	79	89	109
SUNBL	51	53	67	70	92	89	134

Appendix VII: ROA of Nepalese commercial banks for the period of 2014 to 2020 (in percentage)

Banks	2014	2013	2016	2017	2018	2019	2020
NABL	2.65	2.06	2.32	2.69	2.61	2.11	1.58
NIBL	2.1	1.77	2	2.1	2.13	1.79	1.79
SCBL	2.51	1.9	1.98	1.84	2.61	2.61	1.71
HBL	1.22	1.32	1.94	2.19	1.67	1.69	1.67
SBIBL	1.5	1.7	1.59	1.57	1.97	1.94	1.17
BOKL	1.29	0.76	0.84	1.57	1.45	1.89	1.33
NCCBL	1.37	1.25	1.3	0.94	0.82	1.15	1.14
MBL	1.08	1.21	1.51	1.89	1.47	1.61	1.02
KBL	0.95	0.88	1.29	1.26	1.17	1.17	0.76
SIDBL	1.79	1.38	1.53	1.59	1.47	1.49	1.17
GIMEBL	1.58	1.41	1.75	1.63	1.82	1.82	1.06
CITBL	1.62	1.7	1.8	1.72	1.62	1.62	1.08
SUNBL	1.25	2.03	1.61	1.55	1.78	1.80	1.17

Appendix VIII: money supply, population growth rate, consumer price index and gross domestic product

Year	GDP (%)	Population Growth Rate (%)	Money Supply (%)	Consumer Price Index (CPI) (%)
2013/14	5.40	1.47	19.10	9.10
2014/15	3.40	1.45	19.90	7.20
2015/16	0.20	0.92	19.50	9.90
2016/17	7.74	1.35	15.50	4.50
2017/18	6.30	1.68	19.40	4.20
2018/19	7	1.83	15.8	6.16
2019/20	1.84	1.85	19.88	4.54