# IMPACT OF NON-PERFORMING LOAN ON PROFITABILITY OF NEPALESE COMMERCIAL BANK: A COMPARATIVE STUDY OF NEPAL INVESTMENT BANK LTD. AND EVEREST BANK LTD

A Dissertation submitted to the Office of the Dean, Faculty of Management, in partial fulfillment of the requirements for the Degree of

Master of Business Studies

by

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**Jan, 2023**

# Certification of Authorship

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “Impact of Non-Performing Loan on Profitability of Nepalese Commercial Bank: A comparative study of Nepal Investment Bank Limited and Everest Bank Limited”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

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Johnson Adhikari

30-01-2023

# Report of Research Committee

Mr. Johnson Adhikari has defended research proposal entitled "Impact of Non-Performing Loan on Profitability of Nepalese Commercial Bank: A comparative study of Nepal Investment Bank Limited and Everest Bank Limited". Successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per and submit the thesis for evaluation.

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# Approval Sheet

We have examined the dissertation entitled “Impact of Non-Performing Loan on Profitability of Nepalese Commercial Bank: A comparative study of Nepal Investment Bank Limited and Everest Bank Limited” presented by Mr. Johnson Adhikari for the degree of Masters of Business Studies. We hereby certify that the dissertation is acceptable for the award of degree.

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External Examiner

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Chairperson, Research Committee
Date:

# Acknowledgements

This is an attempted to present the thesis entitled “Impact of Non-Performing Loan on Profitability of Nepalese Commercial Bank: A comparative study of Nepal Investment Bank Limited and Everest Bank Limited” has been prepared for partial fulfilment of requirements for the degree of Masters of Business Studies. It is directed towards effect of Non-Performance Loan on Nepalese Commercial Bank Performance. This would not have been possible without the kind support and help of many individuals. Therefore, I would like to acknowledge with gratitude to all of them. It is a genuine pleasure to express my deep sense of thanks and gratitude towards my research supervisor Mr. Rajendra Raya he has been guiding and helping me in each stage of the plan, preparation and providing me with stimulating suggestions and encouragement in writing this report. In addition, I would like to thank Campus Chief, Program Coordinator and Internal Examiner for help and support.

I would like to express grateful thanks to all the respondents provided the necessary information for this study. My thanks also go to all well-wishers for their valuable comments, understandings and encouragement when it was required. I greatly thank my parents for their endless love. With this help and support, I have been able to complete this work. I would like to take the responsibility of any possible mistakes that may have occurred in the report. I would be delighted to welcome readers for their suggestion and recommendation to improve the report.

Johnson Adhikari

Jan 2023

## ABSTRACT

*The study was conducted with the aim of studying Non-performing loan of commercial bank in Nepal with reference to Nepal Investment Bank ltd. and Everest Bank ltd. The main focus of study was to analyze the NPL ratio, Position analysis of NPL ratio, and to investigate the impact of NPL on profitability of commercial bank. NPL is major concern for the commercial bank because the default of loan and interest has resulted major threat to the income of the bank. If the NPL is not managed in timely, the commercial cannot escape from the vicious circle of NPL. Non-performing loan are those loan that has been default in the payment of interest and principle. Loan/advance, which payment of interest and principle is not made for more than 3 months is called non-performing loan. In specific contract the term may differ. The rate of NPL in Nepalese banking sector is increasing. Descriptive and Comparative research design has been used for the study. Everest Bank ltd. and Nepal Investment Bank ltd. were used as a sample. The secondary data has been used from the annual report of the both bank. The data analysis tool includes ratio analysis, position analysis, correlation, regression model, and P-value.*

*The study showed that the NPL ratio was in fluctuating position. There was increase and downfall of the NPL ratio in this research period. There was positive and negative correlation between loan and NPL amount. Both are not moving in the same direction. The study showed that there was minimal influence of the NPL on the return on assets. The NPL ratio was insignificant in studying the impact on profitability.The ratio analysis of NPL ratio shows, there is fluctuation in the value of NPL. The reason behind the fluctuation in NPL ratio is increase in loan amount. The NPL ratio has decreased in the recent years. NPL and ROA are tested using the regression analysis. The positive value of coefficient indicates that both are moving in the same direction. There is significant relation between NPL and ROA.NPL and ROE are tested using the regression analysis. The negative value of coefficient indicates that both are moving in the opposite direction. There is insignificant relation between NPL and ROE.*

*Keywords: NPL,ROA and ROE*

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# ABBERVIATIONS

| | |
|---|---|
| ABBS | Anywhere Branch Banking System |
| AM | Arithmetic Mean |
| CV | Coefficient of Variation |
| EBL | Everest Bank Limited |
| i.e | That is |
| LC | Letter of credit |
| LLP | Loan Loss Provision |
| Ltd. | Limited |
| NBL | Nabil Bank Limited |
| NIBL | Nepal Investment Bank Limited |
| No. | Number |
| NPA | Non-Performing Asset |
| NPL | Non-Performing Loan |
| NRB | Nepal Rastra Bank |
| PE | Probable Error |
| ROA | Return of Assets |
| ROE | Return on Equity |
| Rs. | Rupees |
| S.N | Serial Number |
| SD | Standard Deviation |
| T.U. | Tribhuvan University |

# CHAPTER I

# INTRODUCTION

## 1.1 Background

Non-Performing Loans (NPL) means the amount of loan that the individual commercial banks had provided and the customer has not paid in until the time already matured. The distributed loan is not returned timely by clients and becomes overdue then, it is known as Non-Performing Loans for the banks.

Banks play an important role in the development of an economy. In Nepal banking sector is blooming in past few decades. Its main business is to provide loans and advances and to act as depositories of public savings. It generates income by collecting interest on loans and interest or dividends payments from the securities they own. Lending represents the heart of the banking industry. Furthermore, its contribution is to the growth of any country is huge in that they are the main intermediaries between depositors and those in need of fund for their various projects (creditors) thereby ensure that the money available in economy is always put to good use. Therefore, managing loan in a proper way not only has positive effect on the bank's performance but also on the borrower firms and a country as a whole. Failure to manage loans, which make up the largest share of banks assets, would likely lead to the episode of high level of non -performing loans.

Non-performing loans (NPLs) are loans whose payment of interest and principal are pass due by 90 days or more or at least 90 days of interest payment have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue. There are other good reasons to doubt that payment will be made in full NPLs as an asset not generating income or when principal or interest is due and left unpaid for 90 days or more. Loan defaults are inevitable in any commercial bank but they can be minimized. Non-performing loans continues to be an issue of major supervisory concern in Nepal. Non-performing loans are also described as loans in arrears for at least ninety days.

In the aftermath of the global financial crisis, considerable attention has been paid to the accumulation of non-performing loans in the balance sheet of European banks and to its potential negative effects on bank lending to the real economy. Using a dataset composed of bank-specific information and country aggregates, we study the impact of the stock and the flow of non-performing loans on the lending activities of a sample of 75 European banks between 2014 and 2018. In general, higher rates of nonperforming loans, together with other variables, are associated with lower growth rates of performing loans. This effect persists across several econometric specifications and is more significant for those banks exhibiting lower growth rates of performing loans. Similarly, our econometric analysis suggests that banks with higher decreases in their rate of non-performing loans tend to lend more to the real economy, an effect which is particularly intense at the right tail of the distribution. The findings of our paper can be useful for policymakers when addressing the resolution of nonperforming loans in banks (Serrano, 2020).

Bank performance is affected by various factors apart from Non-performing loans both internally inside of the bank and externally, beyond the control of the bank; internally it is about the cost efficiency of the banks and externally depends on the macro economic factors. Asset quality and non-performing loan are among them; it determines the healthiness of financial institutions against loss. Management quality, it is the efficiency of top management and board of directors. Because all the crucial decision is made by them. Capital adequacy, of the bank and its liquidity are among the various factors affect banks performance (Rawal & Thapa, 2019).

Non-performing loans has been an immense issue among banking organizations and academicians because it can affect the profitability of commercial banks. Nonperforming loans ratio (NPLR) indicates how banks manage their credit risk because it defines the proportion of loan losses amount in relation to total loan amount. At the most general level, a non-performing loan (NPL) is a loan where a borrower is not making repayments in accordance with contractual obligations. In many jurisdictions and for many firms, an NPL is defined as a sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days (Bholat, et al., 2016).

Commercial bank has flourished the investment in Nepalese economy. Heavy amount of investment is done by commercial bank. They formulate sound investment policies which support for the growth of the economy. It is vital role of bank to manage the loan so that they can invest properly. The major risk from non-performing loan is credit risk, liquidity risk, operating risk, earning risk, reputation risk, solvency risk, and legal risk. Loan occupies the greater portion in the assets side of balance sheet. Loan is the risky assets. The major reason behind non-performing loan is poorly managed loan portfolio. Non-performing loan reduces the liquidity of bank, credit expansion, and growth of the economic activities and along with performance of bank. Non-performing loan can even erode the existing capital (Sherpa, 2016).

As per the guide of the Nepal Rastra Bank those loan whose payment has not been received for 3 months or more is treated as NPL. As the over dues goes on provision of 1 percent, 5 percent, 25 percent, 50 percent, and 100 percent of loan amount is separated and it is treated as expenses and allocation of loan is reduced from capital. More impact of NPL is that the assets are not able to generate future income. It increases the opportunity loss to the bank. Similarly, it increases the economic cost for bank to recover the money. It causes to decrease in employee morale, bank’s image, and shareholder expectation (Nepal Rastra Bank, 2015).

NPLs are important because they affect the financial intermediation role of commercial banks which constitutes the banks’ main source of their income, and ultimately, the financial stability of an economy (Klein, 2013).

The Basel Committee on Banking Supervision defines credit risk as “potential default of a borrower to meet the obligation in accordance with the agreed terms”. Higher non-performing assets resulted in many bank failures (Nayak et al., 2010).

Financial institution is an institution which collects funds from the public and places them in financial assets, such as deposits, loans, and bonds, rather than tangible property. To be specific, bank is a financial intermediary accepting deposit and granting loans that offers the widest menu of services of any financial institution. The various functions of banks are carrying out currency exchanges, discounting commercial notes and making business loans, offering deposits services (saving deposits), safekeeping of valuables, supporting government activities like credit, granting consumer loans, financial advising, cash management, offering equipment leasing among others (Rose & Hudgins, 2010).

The immediate consequence of large amount of NPLs in the banking system is bank failure as well as economic slowdown. The causes of nonperforming loans are usually attributed to the lack of effective monitoring and supervision on the part of banks, lack of effective lenders' recourse, weaknesses of legal infrastructure, and lack of effective debt recovery strategies (Adhikary, Pant & Dhungana, 2007).

The success of commercial banks depends on profitability. Loan is the major component of earning assets of commercial banks. However, the profitability will be more if the bank has less non-performing loan. On the other hand, if the nonperforming loan is high the banks may not be able reap profit instead they may be in loss because the bank need to put reserves for the amount of non-performing loans (Farhan, 2012). The three letters NPA strike terror in banking sector and business circle today. The dreaded NPA rule says simply this: when interest or other due to a bank remains unpaid for more than 90 days, the entire bank loan automatically turns a non performing asset (Barth, Caprio, & Levine, 2004). The recovery of loan has always been problem for banks and financial institution (Goyal & Kaur, 2011).

Commercial banks are the major source of credit for business firms and households in many countries (Rose, and Hudgins, 2010). Better performance of these financial institutions play a significant role for the economic prosperity of any country and poor performance of these institutions result the slowdown of economic growth and affects badly to the region of the world. Since "the NPA of banks is an important criterion to assess the financial health of banking sector" (Ahmed, 2010), identification of the potential problem and close monitoring is paramount importance for the better performance of this sector. Banking crisis exists in the country if the nonperforming assets (NPAs) touch 10 percent of GDP. The loss of income from NPAs not only brings down the level of income of the banks but also hinders them from quoting better lending rates (Khan & Bishnoi, 2001).

Non-performing loan carries significant threat to commercial bank as it can erode the capital. NPL management is the top priority of bank. The study is conducted to examine the non-performing loan of commercial bank with reference to NIBL Bank Limited and Everest Bank Limited. There are twenty-one commercial banks and the study is conducted with reference to two banks.

### 1.2 Statement of the problems

Issues of Nonperforming Loans (NPLs) gained increasing attentions in the past few decades. Poor loan management will contribute to NPLs. It is critical issue for every bank to manage bad loans. Many countries are suffering from Nonperforming Loans (NPLs) in which banks are unable to get profit out of loan. If the loan is well managed; it will increase the bank's profitability and sustainability in the future. However, if failed to do so, it will be the major threat to their survival.

Nepalese commercial banks have been facing the problem of investment in manufacturing sector. The loans are not serviced in time and there is a risk of no recovery of principle as well, therefore most of commercial banks have switched its portfolio in less risky government securities and non-fund base loan like L/C. This has significant impact in economic growth. This has stopped economic activities in country causing reduction in Gross Domestic Product and declining employment opportunity. It impacts there may be social disorder in the country.

Commercial bank being the financial institutions plays significant role by collecting deposit and lending these fund in the productive sectors as lending and investment. Economic development of the country is directly related to the volume of investment made and return obtained by the bank. Due to lack of experts to analyze the risk and return of investment and maintain optimum portfolio investment problem has become very serious for the least development country like Nepal.

The number of commercial banks are downsizing during this year due to merger and acquisition. Different regulatory measure has been made by central bank for the effective performance of the commercial bank. However, actual performances of banks have not been enhanced. The major problem faced by commercial bank these days are competitive environment, limited investment opportunities, inadequate deposits, challenge to maintain authorized capital, non-performing loan and so on. Non-performing loan is increasing in bank’s balance sheet. Granting loan against insufficient deposits, loan against undervalued collateral, ineffective credit monitoring and political pressure to the lender are the major reason behind the increasing non-performing loan. Liquidity risk, credit risk, operation risk, lost investment opportunities are some of the implication of non-performing loan.

The study is conducted to get the answer of the following question

i. What is the impact of non- performing loan on profitability of the Nepalese Commercial Bank?

**1.3 Objective of the study**

i. The main objective of this study is to examine the impact on non-performing loan on profitability of Nepalese Commercial Bank.

**1.4 Hypotheses of the study**

Ho1: There is no significant correlation between NPL and ROE.

Ho2: There is no significant correlation between NPL and ROA.

**1.5 Rationale of the study**

Commercial bank has huge amount of money invested in loan. Loan compromises heavy chunk in the assets side of bank’s balance sheet. The source of revenue is generated from loan’s interest. In this regard non-performing loan bring prominent threat to bank. Non-productive loan increases the non-performing loan. There can be high probability of loan loss provision. The possible threat from non-performing is credit risk, liquidity risk, operation risk, and overall effect on financial performance. With this regard, this research is conducted to examine the present issue of nonperforming loan in selected bank.

This comparative study will also be helpful to the management of bank to analyze the non-performing assets management and policies of the bank in comparison of these two banks. This study can be helpful in foundation of improved policies. With the help of this report bank can analyze the effectiveness of their credit department. This report could be equally helpful for the central bank for the amendment in policies.

This study shall be beneficial to the shareholder, depositor, borrower, and other creditor to identify the productivity of their bank in Everest Bank Limited and Nepal Investment Bank Limited. The report will be beneficial to identify the effectiveness of credit department and the selected course of action that bank has undergone to overcome the non-performing loan issues. This report will be helpful for the other organization interested in making these banks as a trading partner. Financial analyst, who is interested in the performance of these banks, would be grateful.

Thus, this study made the management body to visualize the determinants of NPLs. Furthermore, the finding of this study initiates the researcher for further studies. Last but not least, this study serves as a reference for other researchers in related area.
Thus, it can minimize the literature gap in the area of study particularly in Nepal.

### 1.6 Limitation of the study

The limitations of the study are as follows:

i. This study is concerned with non-performing assets of only two banks namely:

   Nepal Investment Bank Limited. and Everest Bank Limited.

ii. The study is basically based on secondary data, articles, publication and journals of the respective banks.

iii. The result of the study may not be thoroughly applied over all types of Commercial banks.

### 1.7 Organization of the study

The research work is organized into five chapters including the introduction part of the study. The first chapter states the background of the study, statement of the problem, objectives of the study, the significance of the study, limitations of the study and organization of the study. The second chapter incorporates the literature review part and it includes review of books, journal and other relevant materials such as meaning of loan, loan classification, all relevant information and definition of NPLs. Research gap also includes in this chapter. The third chapter demonstrates the methodology of the study. It includes research methodology, which consists of research design, sources of data, population and sample along with different statistical and financial tools used in this study. The fourth chapter includes data and its presentation. These data are analyzed using financial as well as statistical tools to find out some conclusions. Major findings of the study are also included in this chapter. The last chapter is fifth chapter which includes summary, conclusions and recommendations regarding the subject matter.

# CHAPTER II

# LITERATURE REVIEW

In this chapter, the focus has been made on the review of literature relevant to the non-performing loan and its overall consequences in commercial banks. Each study is based upon historical data and knowledge; the past knowledge provides foundation to the present study. This chapter helps to take adequate feedback to broaden the information based and inputs to my study, therefore this chapter has its own importance in this study. This chapter is devoted into the conceptual review, review of journals and articles and review of thesis

## 2.1 Conceptual Review

Non-performing loans has been an immense issue among banking organizations and academicians because it can affect the profitability of commercial banks. Nonperforming loans ratio (NPLR) indicates how banks manage their credit risk because it defines the proportion of loan losses amount in relation to total loan amount. At the most general level, a non-performing loan (NPL) is a loan where a borrower is not making repayments in accordance with contractual obligations. In many jurisdictions and for many firms, an NPL is defined as a sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days.

According to the multilateral lending institution, the ratio of NPLs to total loans of the country's banks and financial institutions (BFIs) was only 1.16 percent as of mid-July 2022. Among the countries with the lowest NPL, Nepal stands at 15th position. The ratio of nonperforming loans to total loans measures the health and efficiency of the bank by identifying problems with asset quality in the loan portfolio. Lower the value of NPLs, lesser will be the financial risk to the BFIs (World Bank,2022).

One of the most critical risks is the borrower's risk – the risk of non-payment of the disbursed loans and advances. Failure to collect money lent may sometimes results in the Bank's inability to make repayment of the money to the depositors and return to the shareholders and stakeholders. The risk involved is so high that it can bring Bank to a verge of Bankruptcy. The Bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society they are serving. If a Bank behaves irresponsibility, the cost borne by the economy will be enormous. Due to their central role in the economy, governments and central Banks try their best to rescue Banks from such situations. Hence to protect the Banks from such situation and protect depositors and shareholder's money, central Bank issues various directives and guidelines from time to time with modifications and amendments for the sound regulation of the Banking system.

Abidin et al. (2021) showed that the non-inclusion of non- performing loans (NPLs) leads to higher bank inefficiency indicators, which are significantly different from those obtained when NPLs are included. Further, they found that economic growth, capital risk, foreign and national banks, and account liquidity risk explain, in part, the efficiency of banks. The findings of this study demonstrated that bank size and CAR are negative but bank size is significant and CAR is not significant.

Financial development in many developing economies like Nepal is still faced by a number of obstacles such as macroeconomic instability, the fragility of stock markets, the limitation of capital markets, and the inefficiency of development and specialized banks. Despite some of these limitations, banking systems in underdeveloped countries remain integral components of the general economic systems and they can be considered as a key element in any development effort.

The level of a credit crunch is usually proxies by the ratio of bank's non - performing loans (NPL), Non - performing loans is also one of the indicators in assessing the performance which function as an intermediary institution. The high level of NPL showed that a low bank health occurs because many non-performing loans in the bank's activities. NPL levels at Commercial Bank Indonesia over the past five years (2009-2013) shows a fairly stable condition. But inversely proportional to the Regional Development Bank (BPD), which NPL since 2011 has continuously increased. It was reaching 3.49 percent in June 2014 and was predicted to continue to rise (Alexandri, & Santoso, 2015).

## 2.2 Theoretical review

### 2.2.1 Loan and advance

The term 'loan' refers to the amount borrowed by one person from another. The amount is in the nature of loan and refers to the sum paid to the borrower. 'Advance' on the other hand, is a 'credit facility' granted by bank. Banks grant advances largely for short term purpose.

Loans and Advance section of a bank is very important because the success of this department helps to increase its business. If this section does not properly work, the bank itself may become bankrupt. Bank makes loans and advances mostly to traders, businessmen, and industrialists. Although the nature of credit may differ in terms of security requirement, disbursement provision terms and conditions etc. To ensure secured banking Agrani Bank Limited works closely with its clients, the regulatory authorities, the shareholders, other banks and financial institutions. This bank recently achieved lots of milestones rather than other banks. The credit administration of this bank works very efficiently where loan documentation is performed by the experienced bankers. Presently the management is focusing on reducing Nonperforming loans (NPLs) which is a big step of loan recovery. Apart from these, Agrani Bank Limited provides other services and some kinds of value added services for the welfare of the people. However, Loan and Advances is the most important asset as well as the primary sources of earning of a bank which help to improve financial health of a bank. (Rahman, 2019).

**Classification of loans**

Classification of loan refers to the process banks used to review their loan portfolio and assign loans to categorize or grades based on the perceived risk and other relevant characteristics of loan and as per guidelines of central bank. The process continues review and classification of loans enables bank to monitor the quality of their loan portfolios and take corrective action to reduce risk. In the context of Nepal, Nepal Rastra Bank has provided following directives for classification of Loan and advances and its loss provision for the purpose of minimizing possible risk in bank's lending by using authority given by sub section 1 of section 23 of NRB Act 2012 (revised) and section 19 (ka) of Commercial Bank Act (revised ). According to NRB, loan is classified into five categories: -

- Pass loan
- Watch List
- Substandard loan
- Doubtful loan
- Bad Loan

**Pass loans**: Loans which have not overdue and which are overdue by a period up to three months. Such loans require provisioning of one per cent of the total loan amount.

**Watch list loans**: Those loan & Advances lies under pass loan and having following features must be classified as watch list such as principal and interest payments are due for more than one month, not renewed on time but temporarily maturity period extended short term & working capital loan, loan supplied to a borrower has been classified as non-performing loan other Bank and Financial Institutions (to the same Borrower), those regular loans (i.e. Short term loan or Working Capital Loans), supplied to firm, company & corporate body having net worth negative continuously for last two year. However, it excludes under construction projects, those projects where multi banking financing are enjoyed but not transferred to consortium financing as per section 33 of directive no.-2 and those loan & advances having poor cash flow during inspection by bank and order to classify as watch list.

**Sub-standard**: Loans which are overdue by a period from three months to a maximum period of six months. Such loans require provisioning of 25 per cent of the total loan amount.

**Doubtful**: Loans which are overdue by a period from six-months to a maximum period of one year. Such loans require provisioning of 50 percent.

**Bad loan (Loss)**: Those loans and Advances whose installment (repayment) are due for more than one year must be classified as bad loan (loss).

### 2.2.2 Non-performing loan

NPLs are defined as bad debt. Non-performing loan is the sum of borrowed money upon which the debtor has not made scheduled payment for at least three months. The delay in payment could be either interest or principle and can be both. In the case of bank, loan is the assets of bank because large portion of deposits are utilized in giving loan. Interests from loan are major source of revenue for bank. Irregular loan can be turned into nonperforming loan. Hence, those loans that are not effective in giving interest and principal amount back are non-performing loan.

A study has defined that Non-performing loan is not a single concept and it can be broadly defined. NPL can be classified into three parts such as substandard loan, doubtful loan, and Bad debt according to the time of being default (Choudhury, 2002).

### 2.2.3 Performing loans

Performing Loans are those loans that repay principal and interest timely to the bank from the cash flow it generates. In other word, performing loan are the productive assets that generate some profits. Loans have the certain time period to return its principal with its interest. If anyone repays loan with its interest on time is known as the performing loan. Different country may have different policy to classify the performing loans. In the context of Nepal, loans that have fallen under 'pass and watch list' category are treated as performing loan. It is the most profitable assets of banks. Better performing loan are the symbol of success of banks. But many banks are suffering from the non-repayment of loan amount (Choudhury, 2002).

### 2.2.4 Loan loss provision

There is risk associated in every loan. To minimize the risk from possible losses from loan banks have to allocate some fund as loan loss provision. Loan loss provision is the accumulated fund that is provided as a safeguard to cover possible losses. It is the expected accumulated provisioning fund. The amount required for provisioning depends upon the level of NPAs and their quality. The high-quality loan requires low loan loss provision, whereas bad loan requires high loan loss provision. One percent provision of total credit is minimum requirement as every pass/good loan have to be provisioned. However, the ratio of provision may differ from nation to nation. In Nepal, NRB has instructed the BFIs to set aside provision amount of 1 percent for ‘Pass’ loans, 5 percent for ‘Watch List’ loans, 25 percent for ‘Sub-standard’ loans, 50 percent for ‘Doubtful’ loans and 100 percent for ‘Loss’ loans respectively. BFIs were earlier required to classify loans into Pass, Sub-standard, Doubtful, and Loss categories, depending on duration of delay in debt servicing. Now they will have to add one more category -- Watch List. According to new requirements, a lender has to

classify loans which have not been serviced for three months as ‘pass’ loans. ‘Watch
List’ includes loans which have not been serviced for three months. But ‘Watch List’ includes loans whose principal and interest have not been paid within the repayment period. Non-performing loans not serviced for three to six months will have to be classified as ‘Sub-standard’ loans. Similar, loans not service for six months to one year will have to be classified as ‘Doubtful’ loan. The ‘Loss’ loans are those whose interest and/or installment of principle has not been paid for more than one year. Loan loss provision made for performing loan is called "general loan loss provision" and loan loss provision made for non-performing loan is called "specific loan loss provisioning" (Nepal Rastra Bank, 2015).

### 2.2.5 Causes of NPA

One of the potential factors responsible for increasing non- performing assets of the commercial banks is lending policy of the banks. Similarly ineffective credit policy, weak monitoring ,lacking of portfolio analysis, shortfall on security, weak credit concentration, mismanagement within the banks, inability to identify borrowers bad intention etc are loopholes in the side of banks and economic and industrial recession, insufficient legal provision for the recovery of dues, inconsistency on government policy, lack of monitoring and supervision from Central Bank, high and conservative provisioning requirement are some external factors responsible increasing NPA of banks (Golcha, 2007).

### 2.2.6 NPA management

Banking sectors are the backbone of a country. The motto of the commercial Banks is to mobilize the resources by investing the same in a profitable manner. The resources may include capital funds consisting the Shareholders equity, Money deposited by the people, borrowing and profit capitalization. Though the activities of them are guided by some social obligations but some profit has always been desirable for existence.

Internal Effects: Due to NPA the banks have to make loan loss provision from their profit as well. That's why the profit of the banks decreases or may occur losses. As a result, share capital also becomes capital erosion and capital inadequacy. If the provision for doubtful debts crosses 5 percent of the total loan amount, the bank has to pay income tax as profit. So, it has direct effect to the cash flow of bank. As a result, the profit of the bank will decreased.

External Effects: When banks accept deposits from the public and provide loan to the operation of business and other purposes. When the loan does not return with its interest, it becomes non-performing assets and banks will not able to return the deposited amount to their customers. It the banks unable to return the deposited amount the banks are loosed public supports and faiths. Not only that much but also, the banks have to take loan at a higher rate to pay deposit, which directly affects the profitability of the banks and which lead the bank bankruptcy and dissolved (Brose, 2016).

### 2.2.7 General principles of lending

Banks are the essentially dealers in the funds of others and that too funds mostly repayable on demand. Therefore, he follows a cautious policy in the matter of lending and is generally governed by the well-known general principles of sound lending which are discussed below:

1.**Safety**

The main business of the banking consists in receiving various types of deposits (i.e.) current, saving and fixed and lending such deposits to needy borrowers in the form of advances and discounting of bills. This obviously implies that safety of such funds should be ensured. Otherwise, the banker will not be in a position to repay his deposits and once the confidence of the depositors is shaken, he cannot carry on the banking business.

If the banker has to ensure safe lending, he has to look to the three C's of the borrower namely Character, Capacity and Capital. Character of the borrower is important because that determines his willingness to repay the loan. His capital and capacity to run the business successfully determines his capacity to pay. The safety of the loan depends on both his capacity to repay and willingness to repay.
Normally the banks lend up to 70 to 72 % of their deposits, because a portion of the deposits are required to meet the withdrawals by customers. His endeavor is of course to lend as much of the deposits as possible, without which he will not

be in a position to meet his interest obligations and the maintenance of establishment. Therefore, he has to lend with a view to earn interest but lend it safe (Chaudhary, 2002).

**2. Liquidity**

Liquidity is meant the readiness with which the bank can convert the assets into cash. As the banker's deposits are subject to the legal obligation of being repayable on demand and at short notice, bank must ensure liquidity also while lending, so that in times of needs bank will be able to convert the assets into cash. There is yet another reason for paying attention to the liquidity factor. The cost of borrowing from Reserve Bank depends on the net liquidity ratio, which is the ratio calculated by taking the proportion of specified net liquidity assets of the borrowing bank, to the bank's aggregate demand and time liabilities.

In fact, if one looks at the banker's balance sheet, he finds the assets arranged in the order of liquidity. Cash is the most liquid assets and it appears as the first item. Banker can ensure high liquidity by keeping all deposits in the form of cash only. In such a case as pointed out earlier, he will not be in a position to meet the interest obligations and expenditure of the establishment. From experience, he has learnt that he can safely lend out a substantial portion of the funds. But while lending he should try to ensure liquidity, i.e., in times of need, he must be able to obtain repayment of the money within a reasonably short time. Liquidity also implies that the assets can be sold without any loss. Thus, the concept of liquidity has twin aspects namely quick sale ability or convertibility of the assets and to risk of loss in such conversion (Shrivastava, 2015).

**3. Profitability**

Banks are essentially commercial ventures. Commercial banks have obtained funds from shareholders and naturally if dividend is to be paid on such shares it can only be paid by earning profits. Even in the case of public sector banks although they are service motivated, they will have to justify their existence by earning profits. This is not possible unless the funds are employed profitably. From out of the revenue earned the bank has to pay interest on deposits, salary to the staff, meet other establishment expenses, build-up reserves and the balance must permit the payment of dividend to shareholders. However, the banker will not give under importance to this aspect because a particular will not give undue importance to this aspect because a particular customer may offer a higher rate of interest but an advance made to him result in a bad debt. Therefore, for the sake of profitability, the other two principles, liquidity and safety cannot be sacrificed.

**4. Purpose of the loan**

Banker should enquire the purpose of loan for which it was taken by the creditors. If an advance is given for productive purpose, in all probability, it will be repaid. Thus, safety is ensured. If an advance is made for speculative purpose, the banker may come to grief. Similarly advances made for wasteful expenditure on social functions etc. are unproductive in nature and as a rule banks avoid such advances. But it is very difficult for the bank to ensure that the advance has been used for the purpose for which it was taken. A person may takes a loan obviously for a productive use, but may spend it on speculation. In recent years there is scrutiny of some of the account, as a follow-up measure to see that the end, use of credit is not for some other purpose (Nsobilla, 2016).

**4. Diversification of loans**

Banker should try to diversify loans as far as possible, so that he may minimize his risk in lending. If the banker lends only to one industry or only too few big firms or concentrates in a certain geographical area, the risk is great. He should diversify lending, so that he may not be affected by the failure of one industry, or the few big borrowers. Where lending is done only in one area, it may be affected by political upheaval or natural calamities.

### 2.2.8 Review of studies

### Review of NRB directives Directive No 2. Provision relating to classification of loan/advances and loan losses

Having exercised the powers conferred by Section 79 of the Nepal Rastra Bank Act, 2002, the following Directives have been issued with regard to classification of credit/advances and provisions to be made for its possible loss by the institutions obtaining licenses from this Bank to carry out financial transactions.

## 1. Classification of loans/advances:

Entire loans and advances extended by a licensed institution have to be classified as follows based on expiry of the deadline of repayment of the principal and interest of such loans/advances: -

(a) Pass: Loans/advances which have not overdue and which are overdue by a period up to three months.

(b) Watch list: Loans/advances which have not overdue and which are overdue by period up to three months and it includes loans whose principal and interest have not been paid within the repayment period.

(c) Sub-standard: Loans/advances which are overdue by a period from three months to a maximum period of six months.

(d) Doubtful: Loans/advances which are overdue by a period from six-months to a maximum period of one year.

(e) Loss: Loans/advances which are overdue by a period of more than one year. The Loan which are in Pass, Watch list class and which have been rescheduled/ restructured are called as the Performing loan and the Substandard, Doubtful and Loss categories are called non-performing loan.

Note: Loans/advances also include bills purchased and discounted.

## 2. Additional provisions relating to pass loans:

1)The following loans may be included in the pass loan: -

(a)Loans/advances extended against the collateral of gold and silver;

(b) Loans/advances of fixed receipts 46

(c) Loans/advances of Government of Nepal securities and loans/advances made against the collateral of Nepal Rostra Bank bonds;

Provided that the cases of the loans/advances against the fixed receipts or Government of Nepal securities or Nepal Rastra Bank bond as the additional collateral, such loans and advances shall also have to be classified in accordance with the directive referred to into Point No. 1 above.

2) The working capital loan having the deadline of up to one year for repayment may be included in the pass loan class. In case the interest to be received from the loans of working capital nature is not regular, such loans have to be classified on the basis of the duration of interest to be due.

**3. Additional provisions relating to loss loans:**

In case there seem any of the following discrepancies in any of the following loans, whether or not the deadline for repayment of which is expired, such loans and advances has to be categorized as the loss loan:

(a) If the fair market value of the collateral cannot secure the loans;

(b) If the debtor is bankrupt or has been declared to be bankrupt;

(c) If the debtor disappears or is not identified;

(d) In case non fund-based facilities such as purchased or discounted bills and L/C and guarantee which have been converted into fund-based loan, are not recovered within ninety days from the date of their conversion into loan;

(e) If the loan is misused;

(f) If the loan is expiry on six months of the date of auction process after the loan could not be recovered or a case is pending at a count under the recovery process;

(g) Providing loan to a debtor who has been enlisted in the black-list of Credit Information Bureau Ltd;

(h) The Project/business is not in a condition to be operated or project or business is not in operation;

(i) The credit card loan is not written off within 90 days from the date of expiry of the deadline;

(j) While converting the L/C, guarantee and other possible liabilities into a fund based loan under the regular process, if the said loan is not recovered within 90 days; and

(k) In case of expiry of the deadline of a trust-receipt loan.

Note: For the purpose of clause No. 3(e) of these Directives, "misuse" means non-use of the amount of the loan for the purpose for which it has is taken; the project is not in operation; the amount accrued from the concerned project or business is not used in repayment of the loan but in other activities; and the word also includes the loan which is proved to have been misused by a supervisor in the course of inspection or supervision or by an auditor in the course of auditing.

**4.Provision to be maintained for loan loss**

For the loans and bills purchase classified according to these Directives, the following loan loss provision shall be maintained based on the remaining amount of principal:

Table 1

Loan classification

| Loan Classification | Provision for Loan Loss |
|---|---|
| Pass | 1% |
| Watch list | 5% |
| Sub-standard | 25% |
| Doubtful loan | 50% |
| Bad debt | 100% |

**Note**. From NRB

**5.Conditions for adjustment in loan loss provision**

No loan loss provision shall be allowed for adjustment except in the following conditions:

a) In case the loan is written off.

b) In the event where repayment of loan is in installment or in partial basis, the loan loss provision made to the extent of the loan so repaid may be written back and adjusted while maintaining loan loss provision according to loan classification; and

c) In the event of the loan is reclassified after loan rescheduling and restructuring, if the repayment of the principal and interest of the loan so rescheduled and restructured is regular for a consecutive period of two years.

**6. Loss provisions and auction of non-banking assets**

a) In the case of sale of the non-banking assets, necessary adjustment in the accounts of loss provision maintained for such property shall be made immediately.

b) In case of the non-banking assets accepted by the licensed institution, certain percent loss provisions shall be made from the date of the acceptance.

c) While accepting collateral security as non-banking assets by licensed institution, the following provisions shall be applicable while selling the non-banking assets so accepted:

   i. Transparent and clear provisions shall be made with regard to auction sale of collateral security/non-banking assets in Financial Administration Byelaws and sales shall have to be carried out in such a manner to serve interest of the bank or financial institution.

   ii. While accepting the collateral property of a customer as non-banking assets whose outstanding loan amount is more than 2.5 million, the concerned party shall compulsorily be black-listed.

   iii. The property so accepted shall have to be sold at the earliest to the extent possible. In case it is necessary for own purpose of the licensed institution, the same shall have to be approved by the Board of Directors and information thereof shall be made available to this Bank as well.

   iv. Prior to auctioning the non-banking assets in the name of the institution, it shall have to be evaluated by an independent evaluator. No excessive/less evaluation shall be allowed.

   v. While accepting the non-banking assets in such a manner, entire property mortgaged as collateral that could not be sold by auction shall have to be accepted and it may not be accepted in part.

## 2.3 Empirical review

### 2.3.1 Review of journal and articles

Ozili (2019) conducted a research on non-performing loans and financial development: New evidence. This study aimed to investigate the influence of financial development on non-performing loans (NPL). The findings indicated that financial development, measured as foreign bank presence and financial intermediation, were positively associated with NPLs. Also, bank efficiency, loan loss coverage ratio, competition and banking system stability were inversely associated with NPLs, while NPLs were positively associated with banking crises and bank concentration. In the regional analysis, NPLs were negatively associated with regulatory capital and bank liquidity, implying that banking sectors with greater regulatory capital and liquidity experience fewer NPLs.

The Banking sector of Bangladesh is trapped in a gridlock of non-performing loans (NPLs) so much so that NPL accounts for 11.60 percent of the total volume of classified loans. This problem has started to be widening with an evil trend of loan embezzlement among the industrial borrowers in our country. Frequent scam series in banking industry is surely a red light and unfortunately the commercial banks are highly surrounded by it. The goal of the study is to analyze the impact of nonperforming loan (NPL) on profitability where in this study considered net interest margin (NIM). This paper attempts to find out the time series scenario of nonperforming loans (NPLs), its growth, provisions and relation with banks profitability by using some ratios and a linear regression model of econometric technique. The empirical results represent that non-performing loan (NPL) as percentage of total loans on listed banks in Dhaka Stock Exchange (DSE) is very high and they hold more than 50 % of total non-performing loans (NPLs) of the listed 30 banks in Dhaka Stock Exchange (DSE) for year 2008 to 2013. Moreover, it is one of the major factors of influencing banks profitability and it has statistically significant negative impact on net profit margin (NPM) of listed banks for the study periods (Akter & Roy, 2017).

The intermediation role of banks which is vital for the development of any nation can be adversely affected by non-performing loans. This study investigated the macroeconomic determinants of non-performing loans in Nigeria, using time series data for the period 2005 to 2014 collated from Central Bank of Nigeria Statistical Bulletin, Nigeria Deposit Insurance Corporation annual report, World Bank Development Indicators and International Financial Statistics. The choice of the period 2005 to 2014 was premised on the fact that the number of banks in Nigeria was reduced from 89 to 25 in 2005 due to the banking recapitalization exercise initiated by the CBN which led to the consolidation of banks. The dependent variable used in the study was non-performing loan (NPL). Independent variables were gross domestic product growth rate (GDPGR), inflation (INF), lending rate (LR), exchange rate (ER), money supply to gross domestic product (M2GDP), and unemployment rate (UR). The outcome of the regression result showed that GDPGR has a positive relationship with NPL. The result also revealed that INF and ER have a positive relationship with NPL while LR, M2GDP, and UR have a positive and significant relationship with NPL. Of the six macroeconomic variables used in the study, it can be observed that only LR, M2GDP, and UR determine NPL in Nigeria while GDPGR, INF, and ER have a positive relationship with NPL but do not influence or determine NPL in Nigeria. The policy implication of this study is that the monetary authorities should ensure that the lending rate charged on loans by deposit money banks is reasonable to enable borrowers to repay the borrowed fund. Finally, the government should direct its monetary and fiscal policies towards reducing unemployment by creating an enabling environment conducive for business growth through the provision of social and infrastructural facilities (Adeola & Ikpesu, 2017).

A study focused about the determinant of commercial banks' lending practices. Commercial banks constitute a major chunk of total assets in the banking system in Nepal and extension of credit is one of the major functions of banking institutions. If banks are not efficient in their lending behavior, it may not contribute to economic growth. On the other hand, their inefficient and imprudent banking practices may lead to riskier financial instability. The study has also focused about the lending practices and its effectiveness in lowering the non-performing loan (Timilsina, 2017).

Study have two central objectives, compliance of capital adequacy and nonperforming loan ratios prudential requirement and analysis on the influence posed by Capital Adequacy, Profitability, and Loan Growth on Non-Performing Loans. Banking sector ratios as reported by the supervisory authority (Bank of

Tanzania) were used for the purpose of this study. The banking sector ratios show that commercial banks in Tanzania had strong Capital adequacy ratio greater the 10% required by the Bank of Tanzania. However, the banking sector failed to meet nonperforming loans 5% threshold. On the hand, when regression analysis was used to study the influence, it was found that, capital adequacy, profitability posed insignificant influence on non-performing loans whereas loan to asset ratio and interest margin had a significant influence (Malimi, 2017).

Loan occupies the greater portion in the assets side of balance sheet. loan is the risky assets. The major reason behind non-performing loan is poorly managed loan portfolio. Non-performing loan reduces the liquidity of bank, credit expansion, and growth of the economic activities and along with performance of bank. Nonperforming loan can even erode the existing capital. (Sherpa, 2016).

Commercial banks are affected by the vicious circle of non-performing loan. The major factor leading to non- performing loan are improper credit appraisal system, ineffective credit monitoring system, over valuation of collateral and political pressure to lender. Setting up recovery cells, effective laws to recover bad loans, and hiring asset Management Company can be some measure to recover non-performing loan. (Pandey, 2016).

Commercial banks collect deposit from depository customer and provide this money as loan to borrowing customers charging some additional interest. In other words, bank play intermediately role in the economy. Bank does so to convert its liability into assets. Thus, loans and advances are the assets of the bank. Interest income on such loans is the primary source of income of commercial banks. To spread the depositors fund to the borrowers, banks should have to take in consideration safeties of loan and advances at time of lending but not only on profitability. They have to analyze properly and take adequate collateral for the safety purpose as providing loan is a risky business. Banks have to manage the proper portfolio so that the impact of market failure of any sector will affect least. Loans may be of different types such as: Personal loan, home loan, auto loan overdraft, import loan, term loan etc.

Non-Performing Loans (NPLs) are regressed on three sets of factors in terms of credit, banks size induced risk preference and macroeconomic shocks (Nsobilla, 2015). The report concluded based on the empirical results that NPLs have a negative statistically significant influence on the financial performance in the selected banks. This signifies that the greater the NPL, the lower the profit of the selected rural banks. The liquidity risk was not statistically significant. The nonperforming loans and cost income ratio had a negative influence on financial performance whereas total revenue and loan recovered had a positive effect on financial performance.

Most banks in Indonesia as emerging market still rely on credit as the main income to finance their operations. But not all loans disbursed by banks are free of risk, some of them have a considerable risk and can threaten the health of the bank. NPL levels at Commercial Bank Indonesia over the past five years 1/1/2009-12/31/2013) shows a stable condition. But inversely proportional happen to the 26 Regional Development Banks (BPD), which NPL, since 2011 has continuously increased. It was reaching 3:49 % in June 2014 and was predicted to continue to rise. This study aims to study the influence of internal and external banks factors on the level of non-performing loans (NPL) in the Regional Development Bank (BPD) in Indonesia. This study is a quantitative research using panel data regression analysis with the study period from 2009 to 2013. The object of this study was 26 banks. Factors examined its effect on the NPL is a measure of a bank (SIZE), the capital adequacy ratio (CAR), the level of bank efficiency (ROA), the growth of gross domestic product (GDP), and the rate of inflation. Estimation model used is panel data models Random Effects Model (REM). The results of this study concluded that the level of efficiency of the bank (ROA) has a positive significant effect on NPL. The result of this study clearly warrant future studies (Alexandri & Santoso, 2015).

An article on the study of non-performing loan and its impact on return on assets of major Indian commercial bank (Brose, 2016). The study concluded on the moderately negative correlation between NPL and ROA. This means that increase in NPL negatively affects the ROA. The study concluded that NPL is more affecting the public sector bank in India. Professor Brose says that effective credit monitoring, complying with the rule of monetary policy, computerization, and maintaining database could be the possible solution to reduce NPL.

Banking sector is an essential part of a nation's economy and represents one of the most important components of a nation's capital. Similarly, the loan portfolio represents an important component of a bank’s total assets. These assets generate huge interest income which is a critical measure of the bank’s financial performance and stability. Therefore, the non-performing loan ratio is a critical tool to measure a bank’s performance. There is recently a growing recognition between macroeconomic indicators, bank-level factors and the non-performing loans (NPLs) ratio. The purpose of this study is to investigate whether there is a significant relationship between macroeconomic indicators, bank-level factors and non-performing loan ratio in Turkey. In this study linear regression models and integration analysis are utilized to determine the significant relations between the periods from January 2007 to March 2013. Our empirical results show that debt ratio, loan to asset ratio, real sector confidence index, consumer price index, EURO/Turkish lira rate, USD/Turkish lira rate, money supply change, interest rate, Turkey’s GDP growth, the Euro Zone’s GDP growth and volatility of the Standard & Poor’s 500 stock market index does not have significant effect to explain NPL ratio on multivariate perspective. On the other hand, industrial production index, Istanbul Stock Exchange 100 Index, inefficiency ratio of all banks negatively affect NPL ratio; unemployment rate, return on equity and capital adequacy ratio positively affect NPL ratio (Vatansever, & Hepsen, 2013).

Profit efficiency of large commercial banks is by accounting for non-performing loans. Although non-performing loans are negatively related to banks’ profit efficiency, it is not statistically significant (Fan & Shaffer, 2004).

A study of non-performing loan and loan loss provisioning of commercial banks with reference to the NIBL Bank, Standard Chartered Bank and Nepal Bank Limited. Objectives are to find out the portion of non-performing loan, relationship between loan loss provision and loan and advances and profitability.

Non-Performing Loan and Loan Loss Provisioning of Commercial Banks' with reference to Nepal Bank Limited, Rastriya Banijya Bank and NIBL Bank. objectives are to find out and analyze the guidelines and provisions pertaining to loan classification and loan loss provision and level of NPL in commercial bank, and to find out the impact of loan loss provision on the profitability of the commercial banks.

Non-Performing Loan Rate is the most important issue for banks to survive. There are lots of factors responsible for this ratio. Some of them belong to firm level issues and some are from macroeconomic measures. However, this study is based on the blend. It considers the Real GDP per Capita, Inflation, and Total Loans as independent variables, and Non-Performing Loan Ratio as dependent variable. Study uses the data of US banking sector from official web sources of US Federal Reserve System. Years from 1985 to 2010 constitute the study period. Employing correlation and regression tests show that research model used is of good statistical health. All the selected independent variables have significant impact on the depended variable; however, values of coefficients are not much high. Banks should control and amend their credit advancement policy with respect to mentioned variables to have lower nonperforming loan ratio (Vatansever & Hepsen, 2013).

Nepal is also facing banking crisis and some of the bank and financial institutions have already failed during last few years and are in the process of liquidation. Studies show that the failure of banks in Nepal was also the result of the high non-performing assets due to and the result of lending without differentiating markets, products and borrowers' credit worthiness and excessive loan exposure to real estate (Sapkota, 2011).

In this study concluded the ineffective credit policy, political pressure to lend non- viable projects, overvaluation of collateral and even without collateral disbursement are the major causes of mounting non- performing assets in government owned banks. Further add lending factors of accumulating NPAs are poor credit appraisal system, ineffective credit monitoring and supervision system, poor security system and recession, willful defaulter etc. (Neupane, 2008).

Pre-election has an influencing power in the regulatory side of the financial sector. The Government and Bangladesh Bank appear to be under pressure from certain quarters due to this. This becomes evident with the relaxation of the guidelines issued by Bangladesh Bank on defaulters accessing fresh loans. This is clearly not an easy environment to operate in and specific steps should be taken to prevent the situation from further deteriorating and undermining the banking sector (Wallich, 2006).

A study of Non-Performing Assets of Commercial Banks of Nepal" with reference to Nepal Bank Limited, Rastriya Banijya Bank, Nepal Bangladesh Bank, Everest Bank and Standard Chartered Bank Nepal Limited. The main objectives of study are to find out the proportion of non-performing loan and the level of NPAs in total assets total deposit and total lending, evaluate the relationship between loan and loan loss provision, present the trend line of the non-performing assets, loan and advances, loan loss provision of selected commercial bank (Pradhan, 2006).

Pointed of the study out the problems of the commercial banks as lack of smooth functioning of economy, different policies and guidelines of NRB, political instability, security problem, poor information system, over liquidity caused by the lack of good lending opportunities, increasing non -performing assets etc (Shrestha, & Chowdhury, 2006).

Improper credit policy and credit appraisal system, lack of supervision and monitoring, economic slowdown, overvaluation of collateral, borrower's misconduct, political pressure to lend for un-creditworthy parties, etc are the major causes of occurring NPAs.

Non-performing loans are defined as those financial assets from which banks no longer receive interest and/or installment payments. They referred to as nonperforming because the loan ceases to generate income for the bank.

Different commercial banks between NPA and ROA and between NPA and ROE indicates that there is inverse relation between NPA and ROA as well as between NPA and ROE. It means the level of NPA effect the return on assets and return in shareholder's equity. Therefore, banks should reduce their level of NPA to increase the ROE and ROA.

This study concluded that the level of NPL of EBL seems lesser than all other banks. Similarly, Nepal SBI Bank stands at second and Standard Chartered Bank stands at third respectively. The position of NIBL seems quite considerable (unsatisfactory) because the bank has been growing its NPL every year.

'A Study of Loan Classification and Non- Performing Assets Management of Rastriya Banijya Bank' (Niraula, 2015) has pointed out the Non- Performing loan as a major problem of Nepalese commercial banks. In this study discloses the factor that the RBB holds the largest portion of Non- Performing loans of the banking sector.

This study concludes that the ineffective credit policies, overvaluation of collateral are the major causes of mounting non-performing assets. Needs to resolve the problems of NPAs by changing the policy and gaining the confidence of borrower to settle loan by way of understanding.

Since this reform has its objective to reduce the pile of non-performing loan by prudent loan appraisal and improved monitoring mechanism it may have some importance for the reduction 28/ Economic Journal of Development Issues Vol. 19 & 20 No. 1-2(2015).

Pointed of the study out the problems of the commercial banks as lack of smooth functioning of economy, different policies and guidelines of NRB, political instability, security problem, poor information system, over liquidity caused by the lack of good lending opportunities, increasing non -performing assets etc (Shrestha, & Chowdhury, 2006).

This study concluded that that "Nepalese banks have to remain focused in their efforts to recover their spiraling bad loans, or non-performing assets, to sustain the positive trend of improving asset quality. Better risk management techniques, compliance with the core principles for effective banking supervision, skill building and training and transparency in transaction could be the solution. Removal of non-performing loans from the banking system even through government or quasi government funds at times, is essential. But official assistance should be so structures as to avoid moral hazard. To conclude with, till recent past, corporate borrowers even after defaulting continuously never had any real fear of bank taking any action to recover their dues despite the fact that their entire assets were hypothecated to the banks. This is because there was no legal Act framed to safeguard the real interest of banks. While NPA cannot be eliminated, but can only be contained, it has to be done not a heavy cost of provisioning and increasing the portfolio of credit. Along with recovery fresh inflow of NPA should be brought down at a level much less than the quantum of its exit. If this specific goal is reached, there is an eventual solution for this problem. Good governance is essential for the success in NPA management" (Pradhan, 2006).

In Nepal, there are not any scientific study regarding the impact of macroeconomic and banks specific variables on non-performing loan. Some studies aimed to evaluate the financial sector reforms adopted after 1990 (Bhetuwal, 2005).

Thesis titled Non-Performing Assets of Nepalese Commercial Banks "With reference to Nabil Bank Ltd, Nepal SBI Bank, Nepal Investment Bank, Nepal Bangladesh Bank and Bank of Kathmandu. His main objectives are to examine the level of nonperforming loan/asset in total assets, total deposit and total lending of Nepalese commercial banks, effects of non-performing loans to return on assets (ROA) & return on equity (ROE) and following of NRB circulars by commercial banks (Khadka, 2004).

Non-Performing Loans (NPLs) are regressed on three sets of factors in terms of credit, banks size induced risk preference and macroeconomic shocks. The panel regression models show the terms of credit variables to be significant. The estimated coefficient on changes in cost of credit because of expectation of higher interest rate is positive. On the contrary, horizon of maturity of credit, better credit culture, and favorable macroeconomic and business conditions decrease the NPLs (Ranjan & Dhal, 2003).

### 2.3.2 Review of previous thesis

Banking sector is important for economy Growth. Non-performing assets are one of the major concerns for banks in India. The study is based on secondary data. The paper highlights the trends, status and impact of NPA on PSBs profitability during the period of 7 years i.e. from 2009 to 2015. Several research journals including research papers and articles have been stated by the researchers. Moreover, RBI Reports on Trend and Progress of Banking in India for various years and websites have been referred during the study. The data were analyzed using descriptive statistics; simple regression model and correlation by using SPSS software version 20 and the Return on Assets (ROA), Return on equity (ROE) and Net Interest Margin (NIM) were used as financial performance variables and NPA as independent variable. The findings and analysis reveal that the NPA impact negatively on public sector bank's financial performance in the period under study (Sharifi & Akhter, 2016).

Indian banking sector has been facing serious problems of raising Non-Performing Assets (NPAs). The NPAs growth has a direct impact on profitability of banks. Non- performing assets are one of the major concerns for scheduled commercial banks in India. The recommendations of Narasimha committee and Verma committee, some steps have been taken to solve the problem of old NPAs in the balance sheets of the banks. It continues to be expressed from every corner that there has rarely been any systematic evaluation of the best way of tackling the problem. There seems to be no unanimity in the proper policies to be followed in resolving this problem. NPAs reflect the performance of banks. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also erodes the value of the asset. NPAs affect the liquidity and profitability, in addition to posing threat on quality of asset and survival of banks. The problem of NPAs is not only affecting the banks but also the whole economy. In fact, high level of NPAs in Indian banks is nothing but a reflection of the state of health of the industry and trade. It is necessary to 17 trim down NPAs to improve the financial health in the banking system. An attempt is made in this paper to understand NPA, the status and trend of NPAs in Indian Scheduled commercial banks, the factors contributing to NPAs, reasons for high impact of NPAs on Scheduled commercial banks in India and recovery of NPAS through various channels (Singh, 2016).

Huge nonperforming loans portfolio erodes the ability of banks to make profits. In the 1990s and beyond many Nigerian banks became weak and highly unprofitable due to excessive nonperforming loans portfolio accumulated by bank promoters and management that led to their demise. Insider dealing was the major cause of large nonperforming loan portfolio in Nigeria, involving over-extension of loans to promoters, directors and significant others that became bad and irrecoverable. To clean up the mess in the banking sector and return the banks to the paths of sound management and profitability, the CBN had to inject about N700bn in a bailout exercise while purging the system of bad and irresponsible management teams (Ugoani, 2016).

Combined Issue of non-performing loan in Nepal. Study shows that lack of ability of the bankers to properly assess the impact of economic indicators on the growth and sustainability of the business, lack of proper knowledge among the bankers for the evaluation of project idea and management of the project and incompetence to properly assess the exit modality as and when necessary were the main internal factors contributing for non-performing loan. During past few decades, many banks both in developed, emerging and developing economies face difficult situation and problems in performance. Such bank failure and financial distress have affected many banks and some of which have closed down by the regulatory authorities (Richard, 2011).

NPA’s of Nepalese finance sector. In his views the NPA’s of three banks (NBL, RBB, NIDC) are highly discussed and published. After analyzing the report, we can find that these banks had high figures in Non-performing loan and more amounts has been declared as loan loss provision. These banks are still operating the loan account despite having high figures in non-performing loan. It has led negative impact for business venture to operate transaction with these banks. The reason behind NPA's behind for these banks are ineffective credit monitoring and careless for credit policies a study by (Golcha,2007).

This study pointed out the problems of commercial banks as "Escalating level of NPAs has been becoming great problem in banking business in the world. In this context Nepal can't be run off from such situation. The level of NPA in Nepalese banking business is very alarming. It is well known fact that the bank and financial institution in Nepal have been facing the problem of swelling non-performing assets and the issue is becoming more and more unmanageable day by day. He added from different financial reports, newspaper and news, it is understood that total NPA in Nepalese banking system is about 35 billion, while it is very worse in case of two largest commercial banks i.e., Rastriya Banijya Bank (RBB) and Nepal investment bank Limited (NIBL)" (Khadka 2004).

There is about NRs. 16,325 million NPL within the commercial banks of Nepal (NRB, 2012). Though this is about 3 percent of the total loan it varies among the banks from 0.6 percent to about 7.27 percent. The share of non-performing loan to total loan is high (above 5 percent) in case of government owned banks than the private sector banks. Hence this study aims to find out the macroeconomic (GDP growth rate, Inflation rate & real effective exchange rate) and banks specific determinants (size, loan to asset ratio, total assets, ownership dummy, real interest rate) of non-performing Loans in commercial Banks of Nepal.

### 2.3.3 Review of research report and other related literature

Williams (2004) followed the methodology of Berger and De Young (1997) and applied it for a sample of European banks over the period 1990-1998. The results show that these banks suffer from bad management and that the most efficient banks do not adopt a skimping behavior. For the other modes of management behaviors, the results are statistically weak. The same methodology was applied by Rossi et al. (2005) for a sample of banks operating in Central and Eastern Europe countries over the period 1995-2002. Their results show that there is a negative correlation between non-performing loans and cost efficiency. According to them, negative correlation is due to exogenous factors (business conditions, criminality, etc.) Which are beyond the control of bank management

(Bad luck hypothesis). In order to minimize the impact of these external factors, they presented the following recommendations:

Strengthening regulation and bank supervision

Increasing credit portfolio diversification

Promotion of mergers with foreign banks

Improving capitalization in order to increase bank’s ability to absorb shocks.

The size of non-performing loans (NPLs) plays a key role in the stability of the banking sector of a country. The factors that explain the NPLs contain very important information for banks. Studies in this regard with respect to developing states such as Pakistan have received little attention. This study aimed to scrutinize the determinants of NPLs observing a case of the banking sector in Pakistan over the period from 2005 to 2017 (Khan, Siddique, & Sarwar, 2020).

This paper presents a systematic literature review of 44 studies on determinants of non-performing loans (NPL) published for the period 1987 to 2017 in 30 peer reviewed journals. The motivation for this analysis is twofold. First, the NPL-issue is attributed high relevance by policy makers such as the European Central Bank and is currently addressed with a variety of measures. Any policy response requires deep understanding of the underlying determinants. Second, availability of data in the NPL-sector expanded, allowing scholars for more sophisticated research. Presenting novel interpretation, I synthesize the literature according to three broad, yet overlapping themes: macroeconomic events, bank- and loan-specific factors. Using an open coding process, the literature is diligently analyzed in 13 subcategories. The results reveal that the interaction of loan and asset specific events with macroeconomic and bank-specific factors still lacks a deep understanding and deserves for additional empirical research Manz, (2019).

The empirical study was undertaken to explore the determinants of non-performing loans (NPLs) of small and medium enterprises (SMEs) sector held by the commercial banks. Stratified sampling technique was used to collect primary data through well-structured survey questionnaire from credit analysts / bankers of 42 branches of 9 commercial banks, operating in the district of Lahore

(Pakistan), for 2014-2015. Selective descriptive analysis and Pearson chi-square technique were used to illustrate and evaluate the significance of different variables affecting NPLs. Branch age, duration of the loan, and credit policy were found to be significant determinants of NPLs. The study proposes that bank-specific and SME-specific microeconomic variables directly influence NPLs, while macroeconomic factors act as intermediary variables. The results elaborate various origins of NPLs and suggest that they are primarily instigated by the loan sanctioning procedure of the financial institution. The paper also underlines the risk management practices adopted by the bank at branch level to averse the risk of loan default. Empirical investigation of bank-specific microeconomic factors of NPLs with respect to Pakistan’s economy is the novelty of the study. Broader strategic policy implications are provided for credit analysts and entrepreneurs (Ikram, Ijaz, & Fiaz, 2016).

### 2.4 Research gap

Through the review of literature, it has been found that some research in the related topic and have already been reviewed which helps to this study but no research was found exactly in detail research and analysis of non-performing loans on sample commercial bank. Hence this research had attempted to fill this research gap by taking reference of Everest bank limited and NIBL Bank. This study tries to show the present issues, latest information on Bank's NPL and their ratios.

# CHAPTER III

# RESEARCH METHODOLOGY

## 3.1 Introduction

This research is based on the secondary information. The secondary information is collected from almost all the commercial banks that have the data on nonperforming loan is available. Hence the secondary data is gathered for 2 out of 27 commercial banks of Nepal. The data for the said banks are collected and analyzed for the period of 2016/17 to 2021/22. The secondary information is collected from the published documents of the commercial banks and Nepal Rastra Bank. The data from Financial Statistics published by Nepal Rastra Bank, Various Economic Survey published by Ministry of Finance and yearly published annual report from selected banks. The research design used for this study is descriptive and comparative research design. It aims to explain the non-performing loan of selected commercial bank. The present facts and figure are collected. It uses the scientific method of collecting, classifying, and analyzing of data. Comparative analysis of selected bank helps to compare the result of two bank.

## 3.2 Research design

The study is base into descriptive survey research. The data has been collected from annual report of selected banks and NRB as well. The findings have been derived from the data and facts provided by the respondent. The study was based on the position analysis and statistical test such as mean, standard deviation, regression and t-test etc. The software called Statistical Package for Social Science (SPSS), Microsoft Excel were used to analyze and interpret the data. This software is widely used in the business setting with its easy-to-use user interface and easily available.

## 3.3 Population and sample

The term 'population' for research means all the member of any well-defined class of people, event or object. It means that the entire group of people, events or things of interest that a researcher wishes to investigate. As this study is about non-performing loan of commercial Banks, all 27 commercial banks of Nepal taken into account as population, out of the total population, following two commercial banks are selected as samples for this study by using judgmental sampling method. The reason behind to select these banks is to leading and similar nature with their establishment and their performance, profile and their NPL ratio. EBL is joint venture Nepali bank and it has been operating with Punjab national bank India, NIBL is better performing Nepali private bank. EBL NPL is better than NIBL. Both banks have good performance in term of profit and market coverage.

i. Nepal Investment Bank Limited
ii. Everest Bank Limited

### 3.4 Sources of data

The research is mainly based on secondary data which may include Annual reports, NRB reports, semi-annual reports, quarterly economics bulletin, economic survey report, journal of finance, previous research studies, dissertation and articles of the subject various text books and different related websites.

### 3.5 Data collection procedure and instruments

The data analysis has used statistical tools and financial tools.

Financial tools: The tools which are used in the study on position analysis and ratio analysis.

A. Ratio Analysis

I. NPL ratio

$$Non-performingloanratio = \frac{Non-performingloan}{loan} * 100\%$$

II. Return on Assets

$$Return\ on\ assets = \frac{Netprofit}{Totalassets} * 100\%$$

III. Return on Equity

$$Return\ on\ equity = \frac{Netprofit}{equity} * 100\%$$

B. Position analysis is used to show the changes in values of non-performing loan, loan and assets of the bank in different time period.

Statistical tools:

I. Arithmetic mean

$$A = \frac{1}{n} * \sum_{i=1}^{n} xi$$

II. Standard Deviation

$$S = \sqrt{\frac{\Sigma (x-\bar{x})^2}{n}}$$

III. Karl Pearson Correlation coefficient is used under statistical tools.

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2}\sqrt{n(\sum y^2) - (\sum y)^2}}$$

The value of ‘r’ always falls between -1 to +1.

If, r = 0, there is no relation between the variables.

If, r < 0, there is negative relation between the variables.

If, r >0, there is positive relation between the variables.

IV. Regression is the statistical method that is used to predict the value of the dependent variable on the base of the independent variable.

**3.6 Data processing procedure and data analysis method**

**Correlation analysis**

Correlation coefficient is the statistical tool that measures the relationship between the variable. The correlation coefficient ranges from -1 to +1. If the value of correlation coefficient is -1, there is perfectly negative relation between the two variables and when the value of correlation coefficient is +1 there is perfect positive relation between the variables. When the value of correlation coefficient is 0 there is no relationship between the variables.

**Regression analysis**

Regression is the statistical method that is used to predict the value of the dependent variable on the base of the independent variable. This statistic is also successful in determining the relationship between dependent and independent variable. It also allows in quantifying the effect of changes in independent variable in dependent variable.

Statistical Methods used in Regression analysis.

Y= a + bx

Where, y= dependent variable,

a= y-intercept, b= slope of line, and x= independent variable

**Bar diagram**

Bar diagram are one of the easiest and the most commonly used methods of presenting the numerical data. They present the data by means of bars or rectangle of equal with. The length of bar presents the given figures and with may be of any size.

**3.7 Conceptual framework**

The diagrammatic representation of conceptual framework shows how the variables were related. Loan/advances and loan appraisal system are independent variables; loan default of loan repayment is dependent variable which depends on the occurrences of the said independent variables. The dependent variable of this study was loan default which was influenced by various independent variables.

Independent variable Dependent variable

Figure 1. Diagrammatical representation of conceptual framework

Loan policies are believed to influence default of loans to a great extent. Well formulated loan policies are believed to have inversely proportional relationship with loan default. Whereas poor loan policies are believed also to have directly proportional relationship with loan default. Loan appraisal is prepared by credit service official. A credit appraisal deal with the approval of loan to appraisal defines whether the loan will be non-performing or not. Credit department should verify whether the documents given by customer are accurate and confidential. It can be ascertained from the above mentioned that initial loan appraisal includes the core five ingredients of loan appraisal. This comprise of tests on accuracy, collaterals, honesty, capacity and cash flow to determine loan credit worthiness and the probability of loans default.

Return on Equity (ROE) is the measure of a company’s annual return (net income) divided by the value of its total shareholders’ equity, expressed as a percentage (e.g., 12 percent). Alternatively, Return on Equity (ROE) can also be derived by dividing the firm’s dividend growth rate by its earnings retention rate (1 – dividend payout ratio). ROE provides a simple metric for evaluating investments return.

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. 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. It is a indicator of how well a company utilizes its assets, by determining how profitable a company is relative to its total assets. It is best used when comparing similar companies or comparing a company to its previous performance.

The duty of credit department does not end after granting the loan. The crucial job starts after the loan sanction. The regular monitoring of loan is necessary to prevent the loan from being default. The monitoring can be done both onsite monitoring and off-site monitoring of borrower’s performance. NRB’s policies also influence the loan default practices. The guidelines of NRB regarding statutory liquid ratio, loan classification, Non-performing loans gives the banks direction to perform their bank and thus they can reduce non-performing loan.

Concrete payment plan is necessary to reduce the non-performing loan. Even the bank is negatively influenced by the loan policies and NRB policies, the concrete payment plan can help bank to reduce the loan default. Regular counseling of customer is necessary because they must be timely reminded the loan amount and interest. Similarly, bank can provide career counseling program to the customer so that they are influence to earn more money.

# CHAPTER IV

# RESULTS AND DISCUSSION

In this chapter raw data collected from various sources are processed and converted into understandable facts and figure using financial and statistical and financial tools supported by figures and diagrams. The processing of data from raw to useful one is called data presentation and using the statistical tools we can do analysis. Major findings and analysis are done in this part.

## 4.1 Results

### 4.1.1 Profile of selected bank

**NIBL**

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

Later in 2002, a group of Nepalese companies comprising of bankers, professionals, industrialists and businessmen acquired the 50 percent shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd., and accordingly the name of the Bank also changed to Nepal Investment Bank Ltd. Bank has won the title of "Bank of the year 2022". Bank has more than 12 lacs customer today. Currently bank owned more than 9 Billion Paid-up Capital.

At present, the Bank's shareholding pattern is as follows: Promoters – 69 percent including Rastriya Banijya Bank – 15 percent and Rastriya Beema Sansthan – 15 percent and General Public hold – 31 percent. With their team of experienced bankers and professionals with proven track record, they, at NIBL believe in offering the best of what our customers look for. NIBL was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective to be the most preferred provider of financial services in Nepal.

NIBL, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business. Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes international standard banking software that supports the E-channels and E-transactions. There are 88 Branches, 133 ATMs, 33Extension/Revenue collection counter and 59 Branchless banking. The Corporate office is located in Durbar Marg. The ownership structure is explained by the given pie-chart.

Figure 2.Ownership structure of NlBL

***Note**. From Annual Report of Nepal Investment Bank Limited*

**Everest Bank ltd.**

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer-friendly services through its Branch Network. As a result, Everest Bank has more than 15 lacs customer today. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS), which enables customers to transact from any branch. Currently bank owned more than 9 Billion Paid-up Capital.

At present, the Bank's shareholding pattern is as follows: Local Promoters – 49.11 percent, Public shareholders – 30.83 percent and Punjab national Bank – 20.03 percent. The bank has been one of the leading banks of the country and has been catering its service to various segments of the society since then. With clients from all walks of life, the bank has helped develop the nation corporately, agriculturally and industrially. With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, and Singapore. There are 124 Branches, 160 ATM Counters, 32 Revenue Collection Counters and 3 Extension Counters across the country making it a very efficient and accessible bank for its customers, anytime, anywhere. The corporate office of the bank is located in Lazimpat. The ownership structure is shown in the given pie chart.

Figure 3.Ownership structure of Everest bank ltd

***Note**. From Annual Report of Everest Bank Limited*

### 4.1.2 Data presentation

**a)Non-performing loan ratio**

Ratio analysis means one number expressed in another form. A ratio analysis is used as a yardstick to measure the relationship between the two figures.

Non-performing loan to loan and advances

Table 2

NPL ratio and statistical measure

| Year | NPL Nepal Investment Bank Ltd | NPL Everest Bank Ltd |
|---|---|---|
| 2016/17 | 1.77 | 0.97 |
| 2017/18 | 1.25 | 0.68 |
| 2018/19 | 0.68 | 0.38 |

| | | |
|---|---|---|
| 2019/20 | 0.83 | 0.25 |
| 2020/21 | 1.36 | 0.20 |
| 2021/22 | 2.78 | 0.16 |
| Mean | 1.1445 | 0.44 |
| S.D | 0.761124 | 0.320687 |
| C.V | 56.67295 | 72.88336 |

*Note. From Annual Report of NIBL and EBL*



Figure 4. *Past 6-year Position of NPL ratio*

***Note**. From Annual Report of NIBL and EBL*

In table 1 and figure 3 shows the non-performing loan over a Six year. The ratio of NIBL Bank ranges from 1.77 percent to 2.78 percent. The highest figure for NPL ratio in the six year was 2.78 percent in 2018/19. The average of the ratio is 1.445 percent and standard deviation is 0.7611. The coefficient of variation is 52.67 percent. Similarly, the NPL ratio of Everest bank ranges from 0.97 percent to 0.16 percent in the six-year period. The highest ratio is 0.97 in year 2016/17 and the lowest NPL ratio is 0.16 in 2021/22. The average NPL ratio is 0.44 and standard deviation is 0.3206, and coefficient of variation is 72.8833 percent.

**b)Classification of non-performing loan**

Non-performing loan is classified into substandard loan, doubtful debt, and loss loan as per the time of being loan. The classification of NPL of NIBL and Everest bank in five-year period is shown with the help of given figure.

Substandard loan is the portion of the loan which payment has not been made for one quarter. Doubtful loan is the portion of the loan whose payment has not been made for six months. Loss loan is the portion of loan whose payment has not been made for 1 month.

Figure 5.Classification of NPL of Nepal Investment Bank Ltd
**Note**. From *Annual Report of Nepal Investment Bank*

In figure 4, The horizontal axis represents the time period. The total NPL is highest in the year 2021/22 and lowest in the year 2018/19. Loan loss compromise the greater proportion of total NPL. In figure 5, NPL is classified into substandard loan, doubtful loan, and loan loss. Analyzing the classification of NIBL bank we found that major portion of NPL include loan loss. In 2018/19, the amount of NPL is less. Highest amount of loan loss and substandard loan also has significant figure. In 2019/20, the amount of NPL has increased. The major portion of NPL includes loan loss and substandard figure is also high. In 2020/21, the amount of NPL increased and substandard loan has highest figure. Doubtful loan figure has decreased in comparison to 2019/20. In 2021/22, NPL again increases. NPL has highest figure in this year. Loan loss covers highest portion and doubtful debt has also been seen in significant amount. But substandard loan has decreased as comparison to 2020/21.

Figure 6.Classification of NPL of Everest Bank Ltd
**Note**. From *Annual Report of Everest Bank Limited*

In figure 5, NPL classification of Everest bank has been done. Analyzing the classification of Everest bank we found that major portion of NPL include loan loss. In 2017/18, the amount of NPL and loan loss has highest. Highest amount of doubtful loan. In 2018/19, the amount of NPL, loan loss, doubtful loan and substandard loan has decreased. The major portion of NPL includes loan loss and substandard figure is also high. In 2019/20, the amount of NPL decreased and loan loss has also decreased. In 2020/21, NPL is again decreases along with loan loss. In 2021/22, the NPL amount has again decreased. Substandard loan has highest figure. Doubtful loan has been in significant high as comparison to previous year. But loan loss has decreased.

**c)Correlation analysis**

Correlation coefficient is the statistical tool that measures the relationship between the variable. The correlation coefficient ranges from -1 to +1. If the value of correlation coefficient is -1, there is perfectly negative relation between the two variables and when the value of correlation coefficient is +1 there is perfect positive relation between the variables. When the value of correlation coefficient is 0 there is no relationship between the variables.

**Correlation between non-performing loan and loan**

Loan given to the customer is the major assets of bank. The portion of the loan that has become default in payment either principle or interest amount is non-performing loan. The relationship between loan and loan indicates the volume of non-performing loan from the total credit granted. The correlation study is conducted to know the relationship between loan and non-performing loan. It helps to know whether with the increase in loan amount, NPL is increasing or not. Similarly, T-test helps to signifies whether the relationships between them are significant or not. Here r indicates coefficient of correlation, $r^2$ indicates coefficient of determination and t-tab is the value of t at 5 percent level of significance under two tailed test.

Table 3

Correlation analysis of loan and NPL

| Bank | R | r^2 | t-cal | P-value | Result |
|---|---|---|---|---|---|
| NIBL | 0.74647 | 0.9980 | 39.2 | 0.1472 | Insignificant |
| EBL | -0.86571 | 0.564 | 1.97 | 0.05786 | Insignificant |

The correlation coefficient 0.74677 and -0.86571 indicates that there is positive and negative relation between the loan and non-performing loan. With the increase in loan, the non-performing loan also increases for NIBL but in the case of EBL increases in loan the non-performing loan does not increases. In the case of NIBL, the calculated value of P is greater than level of significance. This indicates that there is insignificant relationship between loan and non-performing loan. Similarly, in the case of Everest bank, the calculated value of P is greater than level of significance. This indicates there is insignificant relationship between loan and non-performing loan of Everest bank.

**d)Impact of NPL on profitability**

The impact of NPL on profitability is calculated by using regression model. Return on assets is the ability of the firm to utilize the total assets to earn the net profit. Return on equity is the ability of the firm to utilize the total equity to earn net profit. It shows the total return to the investors. Both ratios measure the profitability of the organization.



Figure 7. *Past Position of NPL and ROA of Nepal Investment Bank Ltd.*
**Note**. From *Annual Report of Nepal Investment Bank*

In figure 6 shows the impact on non-performing loan on profitability in different year. The position of Nepal Investment bank ranges from 2.3 percent to 1.79 percent. The highest figure of the profitability 2.3 percent in 2016/17.

Figure 8. *Past Position of NPL and ROA of Everest Bank Ltd.*

**Note**. From *Annual Report of Everest Bank ltd*

In figure 7 shows the impact on non-performing loan on profitability in different years. The position of EBL ranges from 2.25 percent to 1.94 percent. The highest figure of the profitability 2.25 percent in 2016/17.

Figure 9.Past Position of NPL and ROE of Everest Bank Ltd

**Note**. From *Annual Report of Everest Bank Ltd*

In figure 8 shows the impact on non-performing loan on equity in different years. The position of EBL ranges from 28.4 percent to 18.13 percent. The highest figure of equity 28.4 percent in 2016/17 and that time the non-performing loan is also high.

Figure 10.Past Position of NPL and ROE of Nepal Investment Bank Ltd
**Note**. From *Annual Report of Nepal Investment Bank Ltd*

In figure 9 shows the impact on non-performing loan on equity in different year. The position of Nepal Investment bank ranges from 24.47 percent to 13 percent which seems in decreasing position. The highest figure of the profitability 24.47 percent in 2016/17.

**e)Regression analysis**

Regression is the statistical method that is used to predict the value of the dependent variable on the base of the independent variable. This statistic is also successful in determining the relationship between dependent and independent variable. It also allows in quantifying the effect of changes in independent variable in dependent variable

Statistical Methods used in Regression analysis:

Y= a + bx

Where, y= dependent variable, a= y-intercept, b= slope of line, and x= independent variable

Table 4

Regression analysis of NPL and ROA

| Bank | R | R Square | Standard Error | Intercept | NPL variable | P-value |
|---|---|---|---|---|---|---|
| NIBL | -0.343386 | 0.117914 | 0.189553 | 2.15435 | -0.08144 | 0.505166 |
| EBL | 0.552613 | 0.305381 | 0.207273 | 1.721342 | 0.383314 | 0.25546 |

Regression equation of Nepal Investment Bank Ltd is, y = 2.15435 – 0.08144x

Regression equation of Everest Bank Ltd is, y = 1.721342 + 0.383314x

Regression analysis applied to determine the influence of the non-performing loans ratio on the rate of return on assets. The coefficient of determination $r^2$ of NIBL and EBL 0.117914 and 0.305381 meaning that 11.79 percent and 30.53 percent of the variation in the rate of return on assets are explained by changes in the non-performing loan ratio. R Square of NIBL is low because relation between NPL and ROA insignificant and R Square of EBL is moderate because relation between NPL and ROA significant.

**Pool cross section analysis of ROA and NPL of Nepal Investment Bank. Ltd and Everest Bank. Ltd**

Pool cross section is statistical method in which the variables of two unit of study are merged to eliminate the error of small sample unit. Here the data of Nepal Investment Bank ltd and Everest Bank ltd are merged to make the 12 unit of period and regression analysis is done.

Table 5

Pool Cross Regression of NPL and ROA

| R | R square | Standard error | Intercept | NPL variable | P-value |
|---|---|---|---|---|---|
| 0.230664 | 0.053206 | 0.212038 | 1.904303 | 0.062632 | 0.470741 |

Regression equation, y = 1.904303 + 0.062632x

Regression analysis applied to determine the influence of the non-performing loans ratio on the rate of return on Assets. The value of R = 0.0230664 indicates that there is positive correlation between ROA and NPL. When NPL and ROA are moving in the same direction. The coefficient of determination is 0.053206 which indicates that 5.32 percent variability in ROA is determined NPL. The intercept is 1.904303 which indicate that when NPL zero the value of ROA will be 1.904303. The slope of regression equation is 0.062632 which explains that the expected change in ROA is 0.06263 for the per unit change in NPL. The value of P is 0.470741 which is higher than value of alpha 0.05 which indicates that the relation between ROA and NPL is insignificant.

Table 6

Regression Analysis of NPL and ROE

| Bank | R | R square | Standard error | Intercept | NPL variable | P-value |
|---|---|---|---|---|---|---|
| NIBL | -0.129997 | 0.016899 | 4.620657 | 18.44205 | -0.71192 | 0.806102 |

| | | | | | | |
|---|---|---|---|---|---|---|
| EBL | 0.979921 | 0.960246 | 0.949167 | 15.06854 | 13.01089 | 0.000601 |

Regression equation of Nepal Investment Bank Ltd. is, y = 18.44205 - 0.71192x

Regression equation of Everest Bank Ltd. is, y = 15.06854 + 13.01089x

Regression analysis applied to determine the influence of the non-performing loans ratio on the rate of return on equity. The coefficient of determination $r^2$ of NIBL and EBL 0.016899 and 0.960246 meaning that 1.68 percent and 96.02 percent of the variation in the rate of return on equity are explained by changes in the non-performing loan ratio. R Square of NIBL is low because relation between NPL and ROE insignificant and R Square of EBL is high because relation between NPL and ROE significant.

**Pool cross section analysis of ROE and NPL of Nepal Investment Bank. Ltd and Everest Bank. Ltd**

Pool cross section is statistical method in which the variables of two unit of study are merged to eliminate the error of small sample unit. Here the data of Nepal Investment Bank Ltd and Everest Bank Ltd. are merged to make the 12 unit of period and regression analysis is done.

Table 7

Pool Cross Regression of NPL and ROE

| R | R square | Standard error | Intercept | NPL variable | P value |
|---|---|---|---|---|---|
| -0.150609 | 0.022683 | 4.549595 | 19.91732 | -0.86365 | 0.640343 |

Here, Regression Equation is, y = 19.91732 – 0.863665x

Regression analysis applied to determine the influence of the non-performing loans ratio on the rate of return on Equity. The value of R = - 0.150609, indicates that there is negative correlation between ROE and NPL. When NPL is increasing ROE is decreasing and when NPL is decreasing ROE is increasing. The coefficient of determination is 0.022683, which indicates that the variability in ROE is not determined by NPL. The intercept is 19.91732, which indicate that when NPL zero the value of ROE will be 19.91732. The slope of regression equation is 0.86365 which indicates that with every unit change in NPL leads to decrease in ROE by 0.86365. The value of P is 0.600343 which is more than value of alpha 0.05 which indicates that the relation between ROE and NPL is insignificant.

### 4.1.3 Data analysis

i. From Table 2, The NPL ratio is in fluctuating position. The NPL ratio of both banks are in fluctuating position. The NPL ratio of NIBL was 1.77 percent in 2016/17 and it falls to 1.25 percent in 2017/18 and it again falls back to 0.68 percent in 2018/19 but it rises to continuously for three years and in 2021/22 it was highest 2.78 percent. The highest NPL is encountered in the year 2021/22. Likely, there is also fluctuation in the NPL ratio of Everest bank. The NPL ratio was 0.97 percent in year 2016/17 and it fall back to 0.16 percent in 2021/22. The highest NPL is encountered in year 2016/17. Comparing the NPL of both banks, Nepal Investment bank has more NPL than EBL. Having low NPL than NIBL suggest that EBL is efficient in managing the NPL. NIBL needs to work hard and develop effective strategies to reduce NPL ratio.

ii. The average NPL ratio of Nepal investment bank in past six year is 1.445 percent and similarly average NPL ratio of EBL is 0.44 percent. Comparing this, EBL seems to have better performance, as higher the ratio means higher risk. Similarly, the coefficient of variation of NPL of NIBL and EBL are 56.67295 and 72.88336 respectively. This shows that EBL has more fluctuation in NPL than NIBL. Having less NPL ratio EBL seems to have sound credit policy and loan appraisal system.

iii. From Table 3, The correlation analysis gives an idea of the strengths and direction of a linear relationship between the independent variables and movement of the dependent variable. The correlation coefficient between NPL and loan of NIBL bank is 0.74647. It indicates that there is positive relationship between NPL loan and loan. With the rise in loan, NPL also rises. The coefficient of determination is 0.55721. The value of calculated p is greater than level of significance, which indicates that at 5 percent level of significance, the relation between loan and NPL is insignificant.

iv. From Table 4, the correlation coefficient between NPL and loan of Everest bank is -0.86571. It indicates that there is negative relationship between NPL loan and loan. With the rise in loan, NPL does not rises. The coefficient of determination is 0.74946. The value of calculated p is less than level of significance, which indicates that at 5 percent level of significance, the relation between loan and NPL is significant.

v. From Table 4, the correlation coefficient between NPL and ROA is negative -0.3433. It indicates that there is negative correlation between NPL and ROA. It suggests that NPL and ROA are not moving in the same direction. The value of R square is 0.117914. It suggests that only 11.79 percent of the variance in ROA is defined by NPL. This shows there is insignificance amount of influence in ROA. Adjusted R square is more accurate to the sample. The standard error in the table suggests that variability in the predicted ROA value and actual ROA value. The standard error is 0.189, which that there could be more difference in the actual and predicted value of R. The significance value of 'p-value' is 0.505166 which is higher than the value of alpha (0.05). It suggests that is insignificant relation between ROA and NPL. NPL is not able to predict the value of ROA. Similarly, the value of y-intercept is 2.154 which mean that the average value of ROA will be 2.154 percent if NPL equals to zero. The slope of regression equation is -0.0814 which indicates that with every unit change in NPL leads to decrease in ROA by 0.08144.

vi. In the case of Everest bank, the value of R= 0.552613 means that the correlation coefficient between NPL and ROA is 0.5526 It indicates that there is positive correlation between NPL and ROA. It suggests that NPL and ROA are moving in the same direction. The value of R square is 0.305381. It suggests that only 30.53 percent of the variance in ROA is defined by NPL. This shows there is significance amount of influence in ROA. The standard error in the table suggests that variability in the predicted ROA value and actual ROA value. The standard error is

0.207273 which that there could be more difference in the actual and predicted ROA. The significance P-value is 0.25546 which is higher than the value of alpha (0.05). It suggests that is insignificant relation between ROA and NPL. NPL is not able to predict the value of ROA. Similarly, the value of y-intercept is 1.721342 which means that the average value of ROA will be 1.72 percent if NPL equals to zero. The slope of 0.383314 explains that the expected change in ROA is 0.3833 for the per unit change in NPL.

vii. From Table 5, the value of R = 0.0230664 indicates that there is positive correlation between ROA and NPL. When NPL and ROA are moving in the same direction. The coefficient of determination is 0.053206 which indicates that 5.32 percent variability in ROA is determined NPL. The intercept is 1.904303 which indicate that when NPL zero the value of ROA will be 1.904303. The slope of regression equation is 0.062632 which explains that the expected change in ROA is 0.06263 for the per unit change in NPL. The value of P is 0.470741 which is higher than value of alpha 0.05 which indicates that the relation between ROA and NPL is insignificant.

viii. From Table 6, the value of R = - 0.129997, indicates that there is negative correlation between ROE and NPL. When NPL is increasing ROE is decreasing and when NPL is decreasing ROE is increasing. The coefficient of determination is -0.13, which indicates that the variability in ROE is not determined by NPL. The intercept is 18.44205, which indicate that when NPL zero the value of ROE will be 18.44. The slope of regression equation is 0.71192 which indicates that with every unit change in NPL leads to decrease in ROE by 0.71192. The value of P is 0.806102 which is more than value of alpha 0.05 which indicates that the relation between ROE and NPL is insignificant.

ix. From Table 6, the value of R = 0.979921, indicates that there is positive correlation between ROE and NPL. NPL and ROE are moving in the same direction. The coefficient of determination is 0.960246, which indicates that the 96.60 percent variability in ROE is determined by NPL. The intercept is

15.06854, which indicate that when NPL zero the value of ROE will be 15.06854. The slope of regression equation is 13.01089 which explains that the expected change in ROE is 13.01089 for the per unit change in NPL. The value of P is 0.000601 which is less than value of alpha 0.05 which indicates that the relation between ROE and NPL is significant.

x. From Table 7, the value of R = - 0.150609, indicates that there is negative correlation between ROE and NPL. When NPL is increasing ROE is decreasing and when NPL is decreasing ROE is increasing. The coefficient of determination is 0.022683, which indicates that the variability in ROE is not determined by NPL. The intercept is 19.91732, which indicate that when NPL zero the value of ROE will be 19.91732. The slope of regression equation is 0.86365 which indicates that with every unit change in NPL leads to decrease in ROE by 0.86365. The value of P is 0.600343 which is more than value of alpha 0.05 which indicates that the relation between ROE and NPL is insignificant.

### 4.1.4 Major findings

The study is successful to find the major issues related with the study. The major focus of the study was NPL. Non-performing loan carries significant threat to commercial bank as it can erode the capital. NPL management is the top priority of bank. The study was conducted to examine the non-performing loan of commercial bank with reference to Nepal Investment Bank Limited and Everest Bank Limited.

The analysis of the data has helped to come to the major conclusion. Analysis of the data using different statistical and financial tools is done. The study shows that the NPL ratio is in fluctuating position. There is increase and downfall of the NPL ratio in this six-year period. There is positive correlation between loan and NPL amount. Both are moving in the same direction. The least square method used in forecasting NPL amount in five-year period shows that the amount of NPL is increasing with every unit increase in the year. Similarly, the Regression model used for the studying the impact of NPL on profitability of bank shows that there is minimal influence of the NPL on the return on assets. The NPL ratio is insignificant is studying the impact on profitability.

The major findings are summarized in the given table:

Table 8

Major findings

| SN | Issues | Findings |
|---|---|---|
| 1. | Position of NPL | 1. The value of NPL is in fluctuating Position in six-year period. Major fluctuation is seen in Nepal Investment Bank Ltd than Everest Bank Ltd.<br>2. The value of NPL is more of NIBL than Everest Bank. This shows that Everest Bank Ltd have sound credit policy and loan appraisal system.<br>3. In the classification of NPL the amount of loan loss has big amount. Doubtful and substandard loan has also significant amount. This shows that the default loan is more for period greater than 1 year. |
| 2 | Correlation Between loan and NPL | **1.** The correlation between loan and NPL of NIBL are positive and EBL are negative. It indicates that there is a positive and negative relationship between loans.<br>**2.** The relation between loan and NPL of NIBL is insignificant as the calculated value of p is greater than alpha value.<br>**3.** The relation between loan and NPL of Everest bank is significant as the calculated value of p is less than the alpha value. |

| | | |
|---|---|---|
| 3. | Impact of NPL on Profitability | 1. In the single unit analysis, there is positive and negative correlation between NPL and ROA. It indicates that both are not moving in the same direction.<br>2. The relation between NPL and ROA is insignificant. It suggests that only independent variable NPL cannot define ROA<br>3. The impact of NPL on ROA is determined by the slope of 0.062632.<br>4. The value of ROA will be 1.904303 when the value of NPL is equal to zero.<br>5. To eliminate the error of sample, point cross method is used. The correlation between NPL and ROA is found positive. The relation between the ROA and NPL is found insignificant.<br>6. In the single unit analysis there is also positive and negative correlation between NPL and ROE. ROE of EBL is positive and relation between them is significant. In the case of NIBL is insignificant<br>7. To eliminate the error of sample, point cross method is used. The correlation between NPL and ROE is found negative. The relation between the ROA and NPL is found insignificant<br>8. The impact of NPL on ROE is determined by the slope of -0.86365.<br>9. The value of ROE will be 19.91732 if the value of NPL equals to zero. |

As this study was carried out with 21 commercial banks of Nepal having aims to explain non-performing loan of selected commercial banks, the researcher used scientific methods, of classifying and analyzing data.

Some of the results of the study are found matched with the findings of previous studies. For example, correlation between loan and NPL of banks are positive as in the research of (Shrestha, & Chowdhury, 2006). This study helps to find out there is increasing position of NPL in commercial bank. This finding is supported by (Golcha, 2007). There is positive relation between NPL and loan. Loan and advances and NPL are moving in the same direction. The finding is consistence with the research of (Khadka, 2004). Another finding that this research revealed supports the previous research carried out by (Sherpa, 2016) is commercial banks are giving their whole effort in managing non-performing loan. As there is increasing position of NPL, there is possibility of major threat to commercial banks.

**4.2 Discussion**

The study focuses on the study of non-performing loan on Nepal Investment bank ltd and Everest bank ltd. For this purpose, descriptive, analytical, and comparative research design is used. Secondary data has been used for analysis. Data are collected from NRB, annual report of concern banks, journals and related thesis article. The data collected from different sources are presented table, graphs, and figures. Statistical and financial tools are used for data analysis. The data of five consecutive years have been taken for analysis. The study overall examines the non-performing loan of commercial bank.

(Khadka, 2004) concluded that the level of NPL of EBL seems lesser than all other banks. Similarly, Nepal SBI Bank stands at second and Standard Chartered Bank stands at third respectively. The position of NIBL seems quite considerable (unsatisfactory) because the bank has been growing its NPL every year.

The existence of significant NPA levels prior to the FSRP program pointed to fragility in the domestic financial system. The reduction in NPA levels of NBL and RBB as well as commercial banking sector as a whole can be taken as one of the success measures of FSRP process among others such as formulation of different acts, strengthening regulation and supervision of financial institutions at NRB and movement towards compliance of Basel II accord among others. The research examined the development of the Nepalese financial system and concluded that despite significant financial deepening in the context of financial liberalization and integration with the external economy, there is still scope for geographically balanced financial development and finally suggested for the need of formulation of a master plan to strengthen the Nepalese financial system (Maskay, 2009).

This study helps to find out there is increasing position of NPL in commercial bank. This finding is supported by (Golcha, 2007). There is positive relation between NPL and loan. Loan and advances and NPL are moving in the same direction. The finding is consistence with the research of (Khadka, 2004). Another finding that this research revealed supports the previous research carried out by Sherpa, (2010). Commercial banks are giving their whole effort in managing non-performing loan.

In previous studies the value of NPL and loan is increases in alarming rate but now past five-year fiscal year loan increases as NPL decreases shown by this study. Different commercial banks between NPA and ROA and between NPA and ROE indicates that there is inverse relation between NPA and ROA as well as between NPA and ROE. It means the level of NPA effect the return on assets and return in shareholder's equity. Therefore, banks should reduce their level of NPA to increase the ROE and ROA.

# CHAPTER V
# SUMMARY AND CONCLUSION

In this final chapter, summary, conclusions and some prescribed implications have been put forward for the benefit of the selected banks along with conclusions derived from the study are highlighted in order to fit the country from the present economic situation

The research is carried out to study the impact of NPL on ROA and ROE. It has widespread implications for loan sanctioning procedure of the financial institutions. The issue of NPLs has always remained an issue of great importance for the banking sector literature. Prior studies examined various external factors of the banks which proved to have enormous effect on the quantum of NPLs. Conversely, this study aimed at exploring the bank specific procedural aspects which ultimately affects the level of NPLs

The previous chapter data analysis been carried out accordingly to assist in finding of the study. This part contains the brief overview of the introduction, review of related methodology, findings of the study which assists in drawing the inferences from the findings that will lead to certain conclusions and generalizations.

## 5.1 Summary

As the NPL reveals the asset quality, it plays an important role as an indicator of the financial stability for the banks. Importance must be given towards the management of credit risk on banks as it affects the financial intermediary role of commercial banks which is a core source of income to the banks and ultimately, the financial stability of an economy. In this regards, NPL has drawn the attention of the regulators as well as the higher management of banks as usual. Every crisis follows reforms for achieving financial stability, but mostly agonizingly slows. The issue relating to non-performing loans affect all sectors of an economy, however, the sector that is most hit by this effect is the financial intuitions such as a commercial bank which has large loan portfolio. The problem of high NPL in the BFI sector can interfere with progress on economic growth

Non-performing loan (NPL) is major problem in banking industry. It has play major role for making profit and bank success or failure. The study has examined the effects of non-performing loan on profitability of commercial banks in Nepal with pane data collected from two commercial banks of six years from 2016/17 to 2021/22 period with the total observations twelve. The correlation, multiple regression and bar diagram model has been used to analysis of the data. The pooled ordinary least square model, fixed effect model and descriptive effect model has effect has been employed to analyzed profitability. The profitability measure by return on equity (ROE) and return on assets (ROA) taken as dependent variable whereas non-performing loan (NPL) is independent variable. The result revealed that the NPL have significant negatively associated with ROE and positively associated with (ROA). The study concluded that among study variable NPL and SIZE have major role to determine profitability. However, the effect of non-performing loan on profitability very strong. The bankers have sincerely take for the over 90 day's dues. It rational effect of national economy too.

## 5.2 Conclusion

Banks assets is loan and advances to the customer. Effective management of loan portfolio is challenging to the banks. The reason behind NPL is not the inadequate amount of deposits from customer, but poorly managed loan portfolio. Ineffective credit appraisal and change in the credit policy results in the heavy amount of non-performing loan.

Banking sector plays an important role in the economic development of a country. This is mostly pronounced in the realm of financial sector. The increasing position of NPL in Nepalese sector is creating the less efficiency in the operation of bank. Inadequate credit policy, political pressure, carelessness of customer is some of the reason behind the growing NPL.

The study conducted in NPL analysis helps to find out that there is increasing position of NPL in commercial bank. The NPL is increasing with higher amount. It is necessary for a bank to take prompt action. The study also shows that there is positive relation between loan and NPL. With the increase in loan and advances, NPL is also increasing. NPL and ROA are also in increasing position. Classification of NPL can be done in doubtful, substandard and loan loss. Loan loss amount consist of heavy figure.
Substandard and doubtful debt also have significant amount.

NPL's impact can be seen both on balance sheet and income statement. With the increase in NPL, certain portion of this regarded as a loan loss provision. Loan loss provision is deducted as expenses from operating income. It causes in decrease in the net profit in the bank. Similarly allowance for loan is deducted from the capital. If the position of NPL goes on increasing in no time existing capital can erode.

Commercial bank is trying to control the NPL by following various major. All the commercial bank complies with the rules and regulation, principles of Basel committee on banking and supervision. Credit and monitoring department is regulated for the pre and post monitoring of credits. Credit officer are accountable by all the credit related documents. Security documents, General Documents, Credit appraisal Report, Collateral valuation report are necessary documents required. Timely monitoring of these documents is necessary.

Commercial bank should give their whole effort in managing the non-performing loan. As there is increasing position of NPL, there is possibility of major threat to commercial bank. The positive relation between NPL and loan shows that bank should be cautious enough in giving loan. They should make necessary documentation and verification so that the loan will be performing. With the increase in loan, the NPL ratio should be decreased. NPL ratio can be decreased by two ways. Decreasing NPL in given loan can decrease NPL ratio. Similarly, increasing loan and given NPL can decrease NPL ratio. Bank should be able to decrease NPL and increase loan and advances.

Major conclusion from the study can be listed as following points:

i. The ratio analysis of NPL ratio shows, there is fluctuation in the value of NPL. The reason behind the fluctuation in NPL ratio is increase in loan amount. The NPL ratio has decreased in the recent years.

ii. There is positive relation between NPL and loan. Loan and advances and NPL are moving in the same direction. When the loan and advances increases, NPL also increases. When the loan and advances decreases, NPL also decreases.

iii. NPL and ROA are tested using the regression analysis. The positive value of coefficient indicates that both are moving in the same direction. There is significant relation between NPL and ROA.

iv. NPL and ROE are tested using the regression analysis. The negative value of coefficient indicates that both are moving in the opposite direction. There is no significant correlation between NPL and ROE.

v. Classification of NPL is done into substandard loan, doubtful loan, and loan loss. Loan loss covers the major portion of NPL. Substandard and Doubtful debt also covers the significant amount of NPL. Commercial banks are giving their whole effort in managing the non-performing loan. As there is increasing position of NPL, there is possibility of major threat to commercial bank. The positive relation between NPL and loan shows that bank should be cautious enough in giving loan. They should make necessary documentation and verification so that the loan will be performing.

vi. All the commercial bank complies with the rules and regulation, principles of Basel committee on banking and supervision. Credit and monitoring department is regulated for the pre and post monitoring of credits. Credit officer is accountable by all the credit related documents. Security documents, General Documents, Credit appraisal Report, Collateral valuation report are necessary documents required. Timely monitoring of these documents is necessary.

### 5.3 Implication

Based on the study and findings, following points can be recommended as an action of implication.

i. Banker must be able to utilize the deposit effectively to become successful bank. Loan and assets compromise of major assets of bank. It is the risky assets of bank but the profitability generated from these assets are higher. It is necessary for a bank to make their loan as performing assets. Liberal lending policies is necessary for a bank to increase the loan and decrease the nonperforming loan.

ii. The positive relation between NPL and loan shows that bank should be cautious enough in giving loan. They should make necessary documentation and verification so that the loan is performing. With the increase in loan, the NPL ratio should be decreased. NPL ratio can be decreased by two ways. Decreasing NPL in given loan can decrease NPL ratio. Similarly, increasing loan and given NPL can decrease NPL ratio. Bank should be able to decrease NPL and increase loan and advances.

iii. Bank should review the credit department operation. The staffs need to train and the system of checking and analyzing the loan portfolio should be revised. Any error found in the system operation need to be managed immediately.

iv. Bank should be sensitive to the external movement such as change in interest rates, exchange rate changes, changes in the policy of NRB, inflation, and other business cycles.

v. The major reason behind the NPL is insufficient collateral, poor credit appraisal. Collateral valuation document should be monitored time and again. If the loan amount exceeds to the loaning power, it should be recommended to the immediate supervisor. Lending policy should be revised time and again.

The acts such as pledge and lien need to be done.

vi. The major reason behind NPL is carelessness from the side of customer. Customer is not using the loan amount for the same purpose that has been borrowed. In rural area, people are taking agriculture loan and utilizing the money in marriage, education, and so on. In doing so people are not able to pay the loan back, as their source of income has not been flourished. This problem can be sort out by giving proper guidance to the customer in utilizing the loan amount. Small seminar can be conducted by the bank in making people aware of investing and utilizing the fund.

vii. Credit intelligence bureau need to be sound. Timely delivering of information and managed information system is necessary for bank to track the detail information about loan and default loan. Credit department system should be sound and healthy. Legal mandatory requirement should be maintained by bank. Proper classification of loan, loan should be extended within the capital and deposit limit. Liquidity ratio should be maintained.

### 5.3.1 Implication for further research

i. This research study the position of non-performing loan on few selected commercial banks only. Further researches can be carried out using large sampling to other developmental banks too.

ii. As this study is limited to the analysis of secondary data future researches can be done using primary data which may yield different result.

iii. As this study covers commercial banks in Nepal, it doesn't consider financial institutions and other sectors to provide a more broad-based analysis. It is also recommended to research NPL of other financial institution of Nepal except commercial banks.

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# APPENDICES

APPENDIX 1

Calculation of Mean, Standard Deviation, and Coefficient of Variation

| Year | NPL Nepal Investment Bank Ltd | NPL Everest Bank Ltd |
|---|---|---|
| 2016/17 | 1.77 | 0.97 |
| 2017/18 | 1.25 | 0.68 |

| | | |
|---|---|---|
| 2018/19 | 0.68 | 0.38 |
| 2019/20 | 0.83 | 0.25 |
| 2020/21 | 1.36 | 0.20 |
| 2021/22 | 2.78 | 0.16 |
| Mean | 1.1445 | 0.44 |
| S.D | 0.761124 | 0.320687 |
| C.V | 56.67295 | 72.88336 |

APPENDIX 2

Classification of NPL of Nepal Investment Bank Ltd

| NPL | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Substandard | 68586 | 19151 | 74058 | 931982 | 645594 |
| Doubtful | 82712 | 13610 | 188405 | 56283 | 1163547 |
| Loan loss | 692834 | 560230 | 625697 | 676962 | 1831860 |
| Total NPL | 844132 | 592991 | 888160 | 1665227 | 3641001 |

APPENDIX 3

Classification of NPL of Everest Bank Ltd

| NPL | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Substandard | 66626 | 13186 | 2490 | 5881 | 67205 |
| Doubtful | 32271 | 10210 | 1849 | 2912 | 9648 |
| loan loss | 268268 | 241026 | 194566 | 158363 | 100405 |
| Total NPL | 367165 | 264422 | 198905 | 187716 | 177258 |

APPENDIX 4

Calculation of Correlation between Loan and NPL of Everest Bank Ltd

| Year | loan(x) | NPL(y) | x2 | y2 | Xy |
|---|---|---|---|---|---|
| 2017/18 | 54482 | 367 | 2968288324 | 134689 | 19994894 |

| | | | | | |
|---|---|---|---|---|---|
| 2018/19 | 67955 | 264 | 4617882025 | 69696 | 17940120 |
| 2019/20 | 77287 | 198 | 5973280369 | 39204 | 15302826 |
| 2020/21 | 94069 | 187 | 8848976761 | 34969 | 17590903 |
| 2021/22 | 111695 | 177 | 12475773030 | 31329 | 19770015 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | -0.865719 |
| R Square | 0.749469 |
| Adjusted R Square | 0.665959 |
| Standard Error | 45.90821 |
| Observations | 5 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 18914.51 | 18914.51 | 8.974584 | 0.057864 |
| Residual | 3 | 6322.691 | 2107.564 | | |
| Total | 4 | 25237.2 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* |
|---|---|---|---|---|
| Intercept | 487.9906 | 85.74212 | 5.691375 | 0.010753 |
| X Variable 1 | -0.00308 | 0.001027 | -2.99576 | 0.057864 |

APPENDIX 5

Calculation of Correlation of NPL and loan of Nepal Investment Bank Ltd

| Year | loan(x) | NPL(y) | $X_2$ | $Y_2$ | xy |
|---|---|---|---|---|---|
| 2017/18 | 66219 | 884 | 4384955961 | 781456 | 58537596 |
| 2018/19 | 85461 | 592 | 7303582521 | 350464 | 50592912 |
| 2019/20 | 104624 | 888 | 10946181380 | 788544 | 92906112 |
| 2020/21 | 120825 | 1665 | 14598680630 | 2772225 | 18023625 |
| 2021/22 | 127141 | 3641 | 16164833880 | 13256881 | 462920381 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.74647 |
| R Square | 0.557218 |
| Adjusted R Square | 0.409624 |
| Standard Error | 959.455 |
| Observations | 5 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3475408 | 3475408 | 3.775345 | 0.147275 |
| Residual | 3 | 2761662 | 920553.9 | | |
| Total | 4 | 6237070 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* |
|---|---|---|---|---|
| Intercept | -2204.17 | 1967.143 | -1.12049 | 0.344115 |

| | | | | |
|---|---|---|---|---|
| X Variable 1 | 0.036986 | 0.019035 | 1.943025 | 0.147275 |

APPENDIX 6

Regression Analysis of NPL and ROA of Nepal Investment Bank Ltd

| Year | NPL | ROA |
|---|---|---|
| 2016/17 | 1.77 | 2.3 |
| 2017/18 | 1.25 | 1.9 |
| 2018/19 | 0.68 | 2 |
| 2019/20 | 0.83 | 2.1 |
| 2020/21 | 1.36 | 2.13 |
| 2021/22 | 2.78 | 1.79 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | -0.343386 |
| R Square | 0.117914 |
| Adjusted R Square | -0.10261 |
| Standard Error | 0.189553 |
| Observations | 6 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 0.019212 | 0.019212 | 0.534705 | 0.505166 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Residual | 4 | 0.143721 | 0.03593 | | | |
| Total | 5 | 0.162933 | | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
|---|---|---|---|---|---|---|
| Intercept | 2.15435 | 0.178576 | 12.06406 | 0.000271 | 1.658544 | 2.650156 |
| X Variable 1 | -0.08144 | 0.111376 | -0.73123 | 0.505166 | -0.39067 | 0.227786 |

APPENDIX 7

Regression Analysis of NPL and ROA of Everest Bank.ltd

| fiscal year | NPL | ROA |
|---|---|---|
| 2016/17 | 0.97 | 2.25 |
| 2017/18 | 0.68 | 1.85 |
| 2018/19 | 0.38 | 1.61 |
| 2019/20 | 0.25 | 1.72 |
| 2020/21 | 0.2 | 1.97 |
| 2021/22 | 0.16 | 1.94 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.552613 |

| | |
|---|---|
| R Square | 0.305381 |
| Adjusted R Square | 0.131726 |
| Standard Error | 0.207273 |
| Observations | 6 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 0.075551 | 0.075551 | 1.758549 | 0.25546 |
| Residual | 4 | 0.171849 | 0.042962 | | |
| Total | 5 | 0.2474 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
|---|---|---|---|---|---|---|
| Intercept | 1.721342 | 0.152761 | 11.2682 | 0.000353 | 1.297209 | 2.145475 |
| X Variable 1 | 0.383314 | 0.289053 | 1.326103 | 0.25546 | -0.41923 | 1.185853 |

APPENDIX 8

Point cross regression analysis of NPL and ROA

| YEAR | SN | NPL | ROA |
|---|---|---|---|
| 2016/17 | 1 | 1.77 | 2.3 |
| 2017/18 | 2 | 0.25 | 1.9 |
| 2018/19 | 3 | 0.68 | 2 |
| 2019/20 | 4 | 0.83 | 2.1 |
| 2020/21 | 5 | 1.36 | 2.13 |
| 2021/22 | 6 | 2.78 | 1.79 |

| | | | |
|---|---|---|---|
| 2016/17 | 7 | 0.97 | 2.25 |
| 2017/18 | 8 | 0.687 | 1.85 |
| 2018/19 | 9 | 0.38 | 1.61 |
| 2019/20 | 10 | 0.25 | 1.72 |
| 2020/21 | 11 | 0.2 | 1.97 |
| 2021/22 | 12 | 0.16 | 1.94 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.2306637 |
| R Square | 0.0532058 |
| Adjusted R Square | -0.0414737 |
| Standard Error | 0.212038 |
| Observations | 12 |

ANOVA

| | *df* | *SS* | *MS* | *F* |
|---|---|---|---|---|
| Regression | 1 | 0.025266 | 0.025266 | 0.561957 |
| Residual | 10 | 0.449601 | 0.04496 | |
| Total | 11 | 0.474867 | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Upper 95.0%* |
|---|---|---|---|---|---|
| Intercept | 1.9043029 | 0.099737 | 19.09323 | 3.38E-09 | 2.126531 |
| X Variable 1 | 0.0626317 | 0.083549 | 0.749638 | 0.470741 | 0.248791 |

APPENDIX9

Regression Analysis of ROE and NPL of Nepal Investment Bank Ltd

| Year | NPL | ROE |
|---|---|---|
| 2016/17 | 1.77 | 24.47 |
| 2017/18 | 1.25 | 20 |
| 2018/19 | 0.68 | 15.7 |
| 2019/20 | 0.83 | 16.6 |
| 2020/21 | 1.36 | 14.71 |
| 2021/22 | 2.78 | 13 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | -0.129997 |
| R Square | 0.016899 |
| Adjusted R Square | -0.22888 |
| Standard Error | 4.620657 |
| Observations | 6 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 1.46804 | 1.46804 | 0.06875 | 0.806102 |
| Residual | 4 | 85.4018 | 21.3504 | | |

| | | |
|---|---|---|
| Total | 5 | 86.8699 |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
|---|---|---|---|---|---|---|
| Intercept | 18.44205 | 4.35307 | 4.23655 | 0.0133 | 6.355983 | 30.5281 |
| X Variable 1 | -0.71192 | 2.71495 | -0.2622 | 0.80610 | -8.2498 | 6.82601 |

APENDIX 10

Regression Analysis of ROE and NPL of Everest Bank Ltd

| Year | NPL | ROE |
|---|---|---|
| 2016/17 | 0.97 | 28.4 |
| 2017/18 | 0.68 | 22.84 |
| 2018/19 | 0.38 | 20.32 |
| 2019/20 | 0.25 | 17.38 |
| 2020/21 | 0.2 | 17.69 |
| 2021/22 | 0.16 | 18.13 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.979921 |
| R Square | 0.960246 |
| Adjusted R Square | 0.950307 |

| | |
|---|---|
| Standard Error | 0.949167 |
| Observations | 6 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 87.04546 | 87.04546 | 96.61862 | 0.000601 |
| Residual | 4 | 3.603672 | 0.900918 | | |
| Total | 5 | 90.64913 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
|---|---|---|---|---|---|---|
| Intercept | 15.06854 | 0.699539 | 21.54067 | 2.75E-05 | 13.12631 | 17.01077 |
| X Variable 1 | 13.01089 | 1.323661 | 9.829477 | 0.000601 | 9.33582 | 16.68596 |

APPENDIX 11

Point Cross Analysis of ROE and NPL

| Year | S.N | NPL | ROE |
|---|---|---|---|
| 2016/17 | 1 | 1.77 | 24.47 |
| 2017/18 | 2 | 1.25 | 20 |
| 2018/19 | 3 | 0.68 | 15.7 |
| 2019/20 | 4 | 0.83 | 16.6 |
| 2020/21 | 5 | 1.36 | 14.71 |
| 2021/22 | 6 | 2.78 | 13 |
| 2016/17 | 7 | 0.97 | 28.4 |
| 2017/18 | 8 | 0.68 | 22.84 |

| | | | |
|---|---|---|---|
| 2018/19 | 9 | 0.38 | 20.32 |
| 2019/20 | 10 | 0.25 | 17.38 |
| 2020/21 | 11 | 0.2 | 17.69 |
| 2021/22 | 12 | 0.16 | 18.13 |

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | -0.150609 |
| R Square | 0.022683 |
| Adjusted R Square | -0.07505 |
| Standard Error | 4.549595 |
| Observations | 12 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 4.804124 | 4.804124 | 0.232097 | 0.640343 |
| Residual | 10 | 206.9881 | 20.69881 | | |
| Total | 11 | 211.7923 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
|---|---|---|---|---|---|---|
| Intercept | 19.91732 | 2.14001 | 9.307117 | 3.06E-06 | 15.14908 | 24.68556 |
| X Variable 1 | -0.86365 | 1.792677 | -0.48176 | 0.640343 | -4.85798 | 3.130686 |