## CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study:

Nepal is an undeveloped country having very low per capita income and corporate growth rate. The traditional concept of business and commerce is deep rooted in the people and most of them are unaware of modern form of commerce. Majority of population live below the poverty line. The agro-dominated economy is further worsened by the complex geographical situation. Various factors like land locked ness, poor resource mobilization, lack of entrepreneurship, lack of institutional commitment, erratic government policies, political instability, etc. are responsible for the slow pace of development in Nepal.

But after the restoration of democracy in 1990 and universal echo of economic liberalization, Nepal has implemented liberal economic policy. As a result, many more companies are established in different sectors such as industrial, tourism, transportation, trade and mostly in the financial sector whose contribution in economy has great significance. One of the major concern of the nation is to accelerate their development process and thereby increase the welfare of the people. So this is apparent that among the various component for economic progress financial institutions play vital role.

Basically, it works as financial intermediaries by taking deposits and lending that money to deficit groups of the society. Investment activities drive the economic condition of the country. The more investment to the productive sector the more overall economic growth is achieved.

In Nepal, the industrial revolution took after the establishment of Biratnagar Jute Mill in 1993 B.S. (1936 A.D.) and in 1994 B.S. (1937 A.D.) Nepal Bank Limited was established (Shakespere vaidya 1999:67). Nepal Rastra Bank was established in 2013 B.S. (1956 A.D.), which has helped to make banking system more systematic and dynamic during that time. In 2022 B.S.(1965 A.D.) Rastriya Banijya Bank was established which is fully government owned bank. His Majesty's Government with the view of accelerate the pace of economic development under the structural adjustment program undertook a significant step towards financial liberalization in the year 2043/44 B.S. (1986/87 A.D.) The liberalization policy of the government of Nepal has encouraged the private sector to invest in various fields, which support the domestic overall economic growth. The government of Nepal introduced financial sector reforms in 1980s, which encouraged the healthy competition in the financial sector as well as allowed the entry of foreign banks in the Nepalese market in the forms of joint ventures banks.

## Definition of NPA

To define NPA first of all meaning of Assets should be understood. Assets mean the property of a person or a company. This indicates that assets are the property of a company accumulated with the help of sources.

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

### 1.2 Focus of the Study:

Non Performing Assets [NPA] means the amount of loan that the individual commercial bank had provided and the consumer has not paid it until the time is already matured. Once the distributed loan is not returned timely by clients and becomes overdue then, it is known as Non Performing Assets for the bank. Commercial banks are loosing their profitability because of non performing assets.

In every commercial bank's profitability is affected by the Non performing assets of the banks. The main focus of this study is to examine the impact of the NPA on profitability of the commercial banks and the proper management of non performing assets of the commercial banks. In same way the study will also be focused on non performing assets regarding made in the past five years of four sample banks.

### 1.3 Statement of Problem:

Nepalese commercial banking industry is still under the developing condition. They have to follow all the rules and regulations or the directives issued by the Rastra Bank of Nepal, the central bank of the country. The core banking business is mobilizing the deposits and utilizing it for lending to industry. Lending business is generally encouraged because it has the effect of funds being transferred from the system to productive purposes, which results into economic growth. However, lending also carries credit risk, which arises from the failure of borrowers to fulfill its contractual obligation during the course of transaction. It is well known that the bank and financial institutions in Nepal face the problem of swelling non-performing assets and the issue is becoming more and more unmanageable.

## Table 1.1

Level of Non performing Assets of Commercial Banks in percent

| Commercial banks | 2063/64 | 2064/65 | 2065/66* |
| :---: | :---: | :---: | :---: |
| Everest Bank Limited | 0.8 | 0.7 | 0.5 |
| Nepal Bangladesh Bank Limited | 39.8 | 31.7 | 19.3 |
| Nepal SBI Bank Limited | 4.6 | 3.8 | 2.0 |
| Himalayan Bank Limited | 3.6 | 2.4 | 2.2 |
| Nabil Bank Limited | 1.1 | 0.7 | 0.8 |
| Lumbini Bank Limited | 20.4 | 14.9 | 9.1 |
| Nepal Bank Limited | 13.5 | 8.05 | 5.4 |
| Rastriya Banijya Bank Limited | 27.6 | 21.63 | 15.7 |
| Nepal Investment Bank Limited | 2.4 | 1.1 | 0.6 |
| Standard Chartered Bank Limited | 1.8 | 0.9 | 0.7 |
| Bank of Kathmandu Limited | 2.5 | 1.7 | 1.3 |
| Nepal Credit \& Commerce Bank Limited | 31.4 | 16.4 | 2.7 |
| Nepal Industrial \& commercial Bank | 1.1 | 0.7 | 0.9 |
| Machhapuchhre Bank Limited | 1.2 | 1.0 | 2.3 |
| Kumari Bank Limited | 0.7 | 1.3 | 0.4 |
| Laxmi Bank Limited | 0.4 | 0.1 | 0.1 |
| Siddartha Bank Limited | 0.3 | 0.7 | 0.4 |
| Agricultural Development Bank Limited | 18.0 | 11.7 | 8.9 |
| Total |  | 6.63 | 4.07 |

Source: Annual reports of NRB (2065/66): 22

* : As per unaudited finanacial report of asadh 2066.(Annual report of NRB 2065/66)

Table 1.1 shows that the total NPA to total loan ratio of total commercial banks is found decreased for the fiscal year 2064/65. The total NPA in the banking system is 4.07 percent of total loan in year 2066 B.S. (2009A.D.) while it was 6.63 percent of total loan
in year 2065 B.S. (2008A.D.) While it is even worse in case of largest commercial banks: Nepal Bangladesh Bank and Rastriya Banijya Bank are 31.7 and 21.63 percent in year 2064/65 and 19.3 and 15.7 percent in year 2065/66. (Annual report of NRB 2065/66: 23). Most of the commercial bank's NPA to total lending ratio is decreasing for the fiscal year 2064/65 while Kumari Bank Limited, and Siddharth Bank Ltd have increasing lending ratio as compared to year 2063/64 and 2064/2065. Since the annual report of NRB 2065/2066 is unaudited it is not been compared with year 2064/65.

Nepalese banking sector has been becoming a victim of huge NPAs. Such above stated situation raise a question; Whether the NRB fails to regulate the commercial banks operating in the Nepalese banking industry? And how to manage the level of NPAs Non Performing Assets of Nepalese Commercial Banks.

Table 1.2

## Non performing Assets of Commercial Banks

Amount in Rupees

| Year | Nabil Bank | Himalayan Bank | Nepal Investment Bank | Everest Bank |
| :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 182624480 | 1040757823 | 27249304 | $1292 \overline{3} 5 \overline{79} 0$ |
| 2063/64 | 27253393008 | 641615306 | 421971549 | 113178936 |
| 2064/65 | 37132759149 | $47 \overline{7} 2 \overline{29} 2 \overline{2} \overline{3}$ | 309470983 | $12 \overline{10} 03623$ |
| 2065/6' | 224817413 | 551309634 | 2139047314 | $1179852 \overline{2}$ |
| 2066/67 | $48 \overline{281521}$ | 1024831962 | 254034452 | $4 \overline{3} \overline{7} \overline{0} \overline{5} \overline{8} \overline{2}$ |

Source: Annual Reports of Concern Banks of year 2062/63 to 2066/67.
The amount of NPA of the Nabil Bank, Nepal Investment Bank and Himalayan Bank was increasing from fiscal year 2062/63 to 2063/64 and decreased in the year 2064/65, while Nabil Bank NPA is increasing in Year2064/65. Here, Nabil Bank NPAs seems to be
increasing while it has decreasing NPA in year 2065/66. While Everest Bank has decreasing trend of NPAs excluding the year 2064/65.

The following are the research question of this study:

- What is the overall impact of the NPA on the profitability of the commercial banks under the study?
- Is there any relationship between NPA and the profitability of the commercial banks and the other non-banking assets, [NBA]
- What might be the other factors that influence the non-performing assets of the commercial banks in the banking industry of Nepal?
- Are there any interest factors of the individual commercial banks in increment of the non-performing assets of them?


### 1.4 Objectives of the Study:

The main objectives of the study are to examine and study of the non-performing assets in total assets, total deposits and total lending of the Nepalese commercial banks. The other specific objectives of the present study are listed as follows:

- To analyze the non-performing assets of the banks under study.
- To evaluate the proportion of Non- performing loan in total assets, total deposits and total lending of commercial banks.
- Present the trend of Non- performing loan, loan loss provision in the Nepalese commercial banks.
- To evaluate the proportion of Non-performing loan in total Assets, total deposits and total lending of commercial banks.
- To evaluate the relationship between the profitability and the non-performing assets of the commercial banks under study.
- To examine whether the Nepalese commercial banks are following the NRB directives regarding non performing assets or not.


## 1. 5 Significance of the Studies.

The success and prosperity of bank depends upon the successful implementation of collected resources, which develops the economy of the country. Good lending of the banks has positive impact on economic development of the country and vice versa. Increasing non-performing loan is one of the challenges faced by commercial bank in the present context.

The proper mobilization and utilization of domestic resources become indispensable for suitable economic development and there is no doubt that commercial banks have pivotal role for the collection of dispersed small savings of Nepalese people and transferring them into meaningful investment. The success and prosperity of the bank relies heavily upon the important sectors of economy as well as to generate more profit by investing in consumer's demand. The main aim of the present study is to find out what sorts of tools and techniques have been used to overcome the problem of conversion of performing assets into the non-performing assets, by the commercial banks in the country and to
analyze what other kinds are being used in the present world that the corresponding banks can adopt, if found, under the study.

Loans and advances are the most profitable of all the assets of a bank. These assets constitute primary sources of income to the bank. It means interest earned from such loan and advances occupy major space in income statement of the bank. As a business institute, a bank aims at making huge profit. Since loan and advances are more profitable than any of other assets, the bank is willing to lend as much as its fund as possible. But it has to be careful about the safety of such loans and advances. So it is very important to be reminded that most of the banks failures in the world are due to shrinkage on the value of loans and advances. Hence loan is known as risky assets. Risk of non-repayment of loan is known as credit risk or default risk. Performing loan/assets has multiple benefits while non-performing loan/assets erode even existing capital. Therefore success of any bank doesn't depend upon how much money at a bank is able to lend, but it depends upon the quality of the loan. So success of a bank depends upon the amount of performing assets/loan. Performing assets are those loans that repay principal and interests to the bank from the cash flow it generates.

It is well known fact that bank and financial institutes in Nepal has been facing the problem of swelling non-performing assets and issues is becoming more and more unmanageable. Unfortunately, nowadays banks have been becoming the victims of high level of NPA, which has been the subject of headache to the banking sector and Nepalese banking industry is not also exception from this truth.

The total NPA of Nepalese banking sector is about 35 billion rupees, and it is worse case of the two largest banks of Nepal, Nepal Bank Limited and Rastriya Banijya Bank Limited. The NPA level in these two banks is above $50 \%$ of the total deposits of the bank.

This present study mainly concern with the analysis of level of NPAs in total assets, total deposits and total lending of different commercial banks of Nepal. Therefore, it is significant to find out the level of NPA and to find out whether the banks maintained loan loss provision in accordance to NRB's directives or not. It also examines the effects of NPA in ROE and ROA of the bank. And point out the defects inherent in it and provide package of suggestion for its improvement if found any.

Apart from above this study will be a matter of interest for the students, academicians and other professionals.

### 1.6 Limitation of the Study:

This study is simply a partial study for the fulfillment of MBS Degree. This is not far from several limitations, which weakens the study from the viewpoint of reliability and validity.

- Inadequate coverage of industries,
- Limited time period covered,
- Reliability of statements,

The following are some limitations of the study:
1 Profitability of an organization is caused by very many factors but here we study only those factors, which are directly affected by the non-performing assets of the commercial banks.

2 The whole study is mainly base on secondary data, provided by the concerned banks; the reliability is up to the available data.

3 The study is concerned with non performing assets of commercial banks.
4 The whole study is based on the data of only five years (F/Y 2062/63 to 2066/67).

5 The study covers only four commercial banks of the Nepalese banking industry.

### 1.7 Organization of the Study:

The whole study is divided into the following five different chapters.

1. Introduction: This chapter includes general background of the study, statements of the problems, objectives of the study, significances of the study and the limitations of the study.
2. Review of Literature: This chapter deals with review of the different literature in regards to the theoretical analysis and review of books, articles and thesis related to the study field. Therefore it includes conceptual framework and other related studies.
3. Research Methodology: This chapter includes introduction, research design, population and sample, sources of the information used, period of the study, financial indicators and the statistical tools used.
4. Presentation and the Analysis of the Data: This chapter includes presentation of the financial variables and statistical tools used while interpreting the data so collected from the different sources.
5. Summary, Conclusions and Recommendation: This chapter briefly represents the summery of the whole study made and the conclusions so made and the recommendations for the effective and smooth running of the concerned commercial banks under the study.

## CHAPTER II

## REVIEW OF THE LITERATURE

This chapter provides ideas on the literature that is related to this particular topic. Especially, it covers a comprehensive review of the published and unpublished work by the academician and the scholars.

Literature review is basically a "Stock Taking" of available literature in one's field of research. The literature survey, thus provides us with the knowledge of the status of their field of research. Therefore, this chapter has its own importance in the study. (Kothari, 1990:10).

This chapter includes the review of previous studies, articles, and conceptual framework for the related studies. To present the real framework for the related studies. To present the real framework of the study, mere analysis is not enough and review of some related materials should be dealt with to give the research a clear vision. Past study knowledge provides foundation to the present study.

The study is quite new in Nepalese context. Very few published material are available to the person/organization interested to know about the non-performing loan of Nepalese commercial banks. Since, it covers the analysis of till year 2010 it would be the latest research in this field. In order to avoid the duplication on the study and provide continuity to the previous study, published and unpublished material has been reviewed. likewise
internet surfing has made a great contribution to this study. Further central bank guidelines regarding the non-performing loan have also review to understand the deep knowledge of it.

In the present chapter, the reviews are done relating to non-performing assets of commercial banks. Every study is very much based on past knowledge; the past knowledge provides foundation to the present study. This chapter helps to take adequate feed back to broaden the information based and inputs to this study, therefore this chapter has its own importance in this study. For this several journals, reports and articles published in different journals and newspaper are being reviews and are categorized in two heading.
a) Conceptual framework
b) Review of related studies

### 2.1 CONCEPTUAL FRAMEWORK

### 2.1.1 Meaning and origin of bank

In general a bank is referred to as an institution that deals with money, currency and bullion. It collects the deposits in the form of currency and gold from the savers and supplies to the people in demand of money with different terms and conditions as to the interest and repayment. Hence, it pays interest to the depositors as consideration to the money received and charges different levies in the form of processing fees, commissions, interests etc., from the people who have taken loan from it. At the same time it in the
request of its customers, discounts the bills, gives guarantee, issues letter of credit, investing in different securities, underwriting of securities etc. The word BANK has been derived from Italian word, "Banco" which in Italian means a BENCH. Since the people who dealt in money used to do their work whilst sat on bench the trade that they were carrying was called as 'Banco', which in the due course got modified into BANK.

Now a day the function of banks are changing which has induced their principle competitors to change. The principle competitors such as other financial institutions including security dealers, brokerage firms and insurance companies are trying to be similar to bank in the services they offer.

Sayers defined the bank as, "Ordinary banking business consists of changing cash for deposits and bank deposits for cash, transferring bank deposits from one person or corporation to another, giving bank deposits in exchange for bills of exchange, government bonds, the secured of unsecured promises of businessmen to repay etc." Walter Leaf defined the bank as, "A bank is that institution or individual who is always ready to service money on deposits to be returned against the cheque of their depositors." And Horace White puts bank in his words as, "Bank is a manufacturer of credit and machine for facilitating exchanges." G. Crowther says, "A banker is a dealer in debt in his own and other people's. The bankers business in then to take the debt of other people to offer his own in exchange and thereby to credit money." Dr. H. L. Hart exclaims, "A banker is one who, in the ordinary course of his business, receives money which he repays by honoring cheques of persons from whom or on who account he receives it."

The first renowned bank was called the "Bank of Venice", set up in Venice, Italy in the year 1157 A.D. The Bank of Barcelona and the Bank of Geneva were established in the year 1401 A.D. and 1407 A.D. respectively. In England the banking embarked on with English Goldsmith only after 1640 A.D. The Bank of Amsterdam was the grandest bank during the $17^{\text {th }}$ Century.

### 2.2 Concepts of Commercial Banks

Commercial banks are the heart of the financial system. The commercial banks are those banks that pool together the savings of the community and arrange for their productive use. In the process of such intermediation, commercial bank plays funds raised from different sources into different assets with a prime objective of profit generation and administrative assistance. According to Commercial Bank Act 2031, commercial banks are those banks which are established under this act to perform commercial function." ${ }^{\text {The }}$ commercial banks pool together the savings of the community and arrange for their productive use. The supply financial needs of modern business. They hold deposits of many persons, government establishments and business units. They make funds available through their lending and investing activities to borrowers, individuals, business firms, and government units in doing so they assist both the flow of goods and services from the producers to consumers. They dispense the large portion of medium through which monetary policy is affected. This shows the consequential role in the smooth functioning of the economy.
"The commercial bank has its own role and contribution in the economic development. It is a resource for the economic development, it maintain economic confidence of various segments and extends credit to people".

Those banks are established to improve people's economic welfare and facility, to provide loan to offer banking services to the people and the country. It provides internal resources for developing countries economic. It collects diversified capital from different parts of country through its own branches.
"Commercial bank is a corporation which accepts demand deposits subject to check and makes short term loans to business enterprises, regardless of the scope of its other services".

Commercial banks play the most important role in the modern economic organization. Their businesses mainly consist of receiving deposits, giving loans and financing the trade of a country. They provide short-term credit i.e., lend money for short period. According to the American Institute of Banking, "Commercial Banks is a corporation that accepts demand deposits subject to check and makes short-term loans to business enterprise regarding of the scope of its other services."

In the Nepalese context, the Nepal Commercial Bank Act, 2031 B.S. (1974A.D.) defines, "A commercial bank is one which exchanges money, deposits money, accepts deposits, grant loans and performs commercial banking functions."

In the like manner, various writers on banking have defined the bank in different ways. Since a modern bank performs number of functions. So, it has become very difficult to give a precious definition of a commercial bank.

### 2.2.1 Evolution of banking system in Nepal

There are several types of banks but among them commercial banks play significant contribution in the financial system of the country. They pool together the savings of the community and arrange for their productive use. They supply the financial needs of modern business by various means. They accept deposits from public on condition that they are repaid on demand or on short notice. Their business is confined to financing the short-term and medium term needs of trade and industry such as working capital financing.

Commercial Bank Act, 2031 B.S. (1974A.D.) of Nepal has defined the commercial banks as an organization, which exchanges money, accepts, grants loans and performs commercial banking functions and which is not a bank meant for co-operative, agriculture, industries or for such specific purpose. (Bank and Financial Institution Ordinance 2005)

It is the fact that financial sector plays a vital role for the economic development of a country. Even before the establishment of a banking system in Nepal, financial transactions were in practice as undertaken by some moneylenders like sahu-mahajans, jamindars, relatives, friends, and few informal organizations limited to ethnic group such
as guthi. The borrowing from the other and the informal organization was limited and based on personal understanding. At that time people deposit their gold, silver and valuable goods for the sake of security. Thus, the private moneylenders can be taken as forerunner of the concept of financial institution.

However, the private money lenders supported the economic development of a country, the transactions undertaken by them was totally based on their personal understanding. No legal restriction was against them and their monopolies in transactions were the reasons for covering the interest in personal understandings and exploiting the people. Thus, it was then realized the need to establish financial intermediaries in supporting the economic development of a country.

Nepal has been ruled over by many rulers like Kirati, Lichchhavi, Malla, Ranas, and Shahs. Mostly Kirati, Lichchhavi and Malla regimes, who were concerned with the construction of temples, pati-pouwa, chautaris, etc. At that period neither the people nor the government need to think about the economic development of the country. According to ancient "Vanshavali" in fourteenth century, the ruler of the Kathmandu Jayasthiti Malla segregated the local domiciles into 64 different classes according to profession they had undertaken. Tankadhari was one of those classes who used to deal in coins and precious metals such as gold. These Tankadhari's were said to have carried out the borrowing and lending of money (coins). Hence, Tankadharis can be regarded as the traditional bankers of Nepal.

After long time, during the Rana regime, only handfuls prime minister thought about the economic development of the country. They established some offices in 1993 B.S. (1936A.D.) 'Tejarath Adda' was established during the tenure of Prime Minister Ranoddip Singh Rana as a first institutionized credit house. Tejarath Adda provided loans under the security of gold and silver to the government employees and public. The government established its various branches and sub-branches at different places of the country for the sake of benefits of people. In the overall development of the banking system in Nepal, the Tejarath Adda may be regarded as the father of modern banking institution and for a quite long time it rendered a good service to the government employees as well as to the general public. The government also implemented the rules against the vast interest rate taken by moneylenders. Thus, the government financial institution occupies an important role in the banking history of Nepal.

No financial institutions were established over a long period due to political reasons. To fulfill the growing need of economy in Nepal, banking activities were performed only after the establishment of Nepal Bank Limited in 1994 B.S. (1937A.D.) as the first commercial bank in Nepal. This bank was established under the Nepal Bank Act 1994 B.S. (1937A.D.).

At beginning, $49 \%$ of the ownership belongs to the promoters as well as general public and remaining belongs to government. The incorporation of Nepal Bank Ltd. is the real starting of the banking institution in Nepal. The bank started the act of consolidating the scattered capital since its establishment in order to mobilize it in productive sector. It
developed systematic tradition in culture of modern banking system in Nepal. Such system could be able to establish a strong base for the enlistment of national economy. Beside, it also acted as central bank for more than three decades.

Nepal Rastra Bank was established in Baisakh 14, 2013 B.S. (26 April1956 A.D.) under Nepal Rastra Bank Act, 2012 B.S. (1955 A.D.), the central bank of Nepal. It is totally owned by government. NRB is heavily assisting for the development of the whole economy. It is giving timely directives to all financial institutions operating and conducting in all over the country.

After a long period, the second commercial bank namely Rastriya Banijya Bank (RBB) has been established in 2022 B.S. (1965A.D.) with cent percent government ownership. This bank has been established under the Rastriya Banijya Bank Act 2021 B.S. (1964 A.D.) Both Nepal Bank Limited. (NBL) and Rastriya Banijya Bank (RBB) have made a remarkable contribution by providing reliable banking services to the Nepalese people. Its contribution is well noted in terms of capital formation to the small dispersed saving into meaningful capital investment in order to flourish industry, agriculture, and commercial sector in the country.

The government introduced Commercial Bank Act in Nepal in 2033 B.S. (1976A.D.) to cover the vast field of financial sector. This act has helped to emerge number of commercial bank with a view to maintain economic interest in comfort of the public in general facilitated to provide loan for agriculture, industry, trade and make a available banking services to the country and people.

Among vacuum in the banking sector got some rays of hope only when the government forwarded the economic liberalization policy in 2039 B.S. (1982 A.D.) And decided to allow foreign banks to operate their activities in Nepal in "joint venture model". Joint Venture Banks can be defined as an association of two or more parties having common objectives and goals so as to get maximum satisfaction. Basically at that time, it was envisioned that joint venture banks (JVBs) would support the country in various ways.

In Nepalese context the main purpose of joint venture is top develop economic forces in order to achieve distinguished result, which the partners separately could not achieve. Nowadays, joint venture banks (JVBs) are playing dynamic and vital role in economic development of the country.

The Nabil Bank Ltd. Is the first joint venture bank established in 2041 B.S. (1984 A.D.) and started its operation with modern banking services. In the same way, Nepal Indosuez Bank (currently Nepal Investment Bank), the second joint venture bank established in 2042 B.S. (1985 A.D.) with an objective to encourage efficient banking services and facilities. Likewise Standard Chartered Bank is operated in 2044 B.S. (1987 A.D.).

With the satisfactory result of joint venture banks, Nepalese promoters are highly encouraged and as a result, commercial banks are introduced with cent percent domestic investment. At present, Nepal Industrial and Commercial Bank (NIC), Lumbini Bank Ltd., Machhapuchhre Bank Ltd., Bank of Kathmandu, Nepal Credit and Commerce Bank

Ltd., Laxmi Bank Ltd., Siddhartha Bank Ltd., Kumari Bank Ltd. came into operation with cent percent domestic investment by Nepalese promoters which are the plus point of development of banking sector of Nepal. Now, there is a strong competition between commercial bank for the existence so that the growing needs of the customers can easily achieve.

### 2.2.2 Function of Commercial Banks.

Banks can be defined according to the functions they perform. A bank is established with the prime objective of profit maximization. To achieve this, the bank carries out functional activities, "Principally, commercial banks accepts deposits, provide loan, primarily to business firms thereby facilitating the transfer of funds in the economy". Although, in the yester years banks were viewed as acceptor of deposits then provider of loan, but modern commercial banks have to perform overall development of trade, commerce, industry, agriculture including supports for priority and deprived sectors. The growing bank needs and habits of people and competitive environment has made the banking sector challenging and their operation cannot be underemphasized in present context of market globalization. Hence, a bank is a commercial institution licensed as a taker of deposits, concerned mainly with the making and receiving payments on behalf of their customers, accepting deposits, creating money and making short-term loans to private individuals, companies and other organization.

Although profit maximization is a major objective of commercial bank, to achieve this objective commercial bank performs various functions under the mandatory rules and regulations and directives of NRB and the Commercial Bank Act 2031 B.S. (1974 A.D.).

## Primary Functions

## Accepting Deposits:

Accepting a deposit is the most important function of commercial banks. Commercial banks collect money from those who want to deposit in different types of accounts such as:

- Fixed Deposit Account
- Current Deposit Account
- Saving Account


## Advancing of Loans:

Commercial banks provide the loans required or credit to various sectors of economy such as industry, trade, agriculture, business-deprived sector etc. In this way bank creates credit facilities. It provides loans from various procedures in different form such as:

- Overdraft
- Cash Credit
- Direct loan with collateral
- Discounting of bills of exchange
- Loans of money at call and short notice


## General Utility Functions:

Commercial banks also perform general utility functions such as:

- Issuing of letter of credit to its customers.
- Issuing of bank drafts and traveler's cheque etc., for transfer of funds from one place to another.
- Dealing in foreign exchange and financing foreign trade by accepting or collecting foreign bills of exchange.
- Serving as referred to the financial standing and credit worthiness of its customers.
- Underwriting loans to be raised by public bodies and corporations.
- Providing safety vaults of lockers for the safe custody of valuables and securities of the customers.
- Acting as a trustee and executing the will of the deceased.
- Remittance of money
- Providing Automatic Teller Machine (ATM) service for easy access of money.


## Agency Function:

Apart from the above functions, commercial banks also perform agency functions for which they act as agent and claim commission on some facilities such as:

- Collection of customer's money from other banks.
- Receipt and payment of dividend, interest.
- Security brokerage service.
- Financial advisory service.
- To underwrite the government and private securities.


### 2.3 Some Important Terms:

### 2.3.1 Definition of loan and advances

Loan is defined as a thing that is lent esp. a sum of money. Likewise, debt means a sum of money owed to somebody. However, in financial terms loan or debt means principal or interest available to the borrower against the security. Debt means the money that bank owes or will lend to individual or person.

Likewise, the term loan is defined as a lending. Delivery by one party to and receipt by another party of sum of money upon agreement expressed to implied, to repay it with or without interest. Anything furnished for temporary use to a person at his request on condition that it shall be returned, or it's equivalent in kind, with or without compensation for its use. Loan includes:

- The creation of debt by lender's payment of or agreement to pay money to the debtor or to a third party for the account of the debtor.
- The creation of debt by a credit to an account with the lender upon which the debtor is entitled to draw immediately.
- The creation of debt pursuant to a lender credit card or similar arrangement.
- The forbearance of debt arising from a loan.(Koirala, Subash, (2006) : 35-36)

Further, debt means 'Principal and interest provided to debtor by banks or financial institutions, with or without the pledge of immovable or moveable property of other
securities of guarantees or without guarantee, and the word also mean over dues of the transactions beyond balance or fees, commission and interest incurred in that relation (Debt recovery act for Bank and Financial Institutions).

The supreme court of India has defined the debt during the decision of the case of United Bank of India vs. DRT. Sudhir Gupta states that "In the case in hand, there cannot be any dispute that the expression 'debt' has to be given the widest amplitude to mean any liability which is alleged as dues from any person by a bank during the course of any business activities undertaken by the bank either in cash or otherwise, whether secured or unsecured, whether payable under a decree or other of any court or otherwise and legally recoverable on the date of the application.

### 2.3.2 Concepts of Non Performing Assets:

Non Performing Assets [NPA] means the amount of loan that the individual commercial bank had provided and the consumer has not paid it until the time is already matured. Once the distributed loan is not returned timely by clients and becomes overdue then, it is known as Non Performing Assets for the bank. Reduction of NPA has always been a significant problem for every commercial bank. NPA may be defined broadly as the Bad Debt; however, it in terms of banking sector consists of those loans and advances which are not performing well and likely to be turn as bad debt. NPA as per the current directives of Nepal Rastra Bank, NRB, has been categorized as classified loans and advances. NPA has severe impacts on the financial institutions. On the one hand, the Investment becomes worthless as expected return cannot be realized and on the other, due
to the provision required for the risk mitigation the profitability is directly affected. The existence of the bank can be questioned in this situation. Thus, interest along with principal has to be recovered timely and without any obstacles.

To start with performance in terms of profitability in a benchmark for any business enterprises, including the banking industry, however increasing non performing assets have a direct impact on banks profitability as legally banks are not allowed to book income on such assets (Manamohan, 2002 : 06).

Loans and Advances dominate the assets side of balance sheet of any bank. Similarly, earning from such loans and advances occupy major space in income statement of the banks. However it is very important to be reminded that most of the bank failures in the world are due to shrinkage in the value of the loan and advances. Hence loan is known as risky assets. Risk of non-repayment of loan is known as credit risk or default risk. Performing loans have multiple benefits to the society while non-performing loans erodes even existing capital.

Performing assets are those loans that repay principal and interest to the bank from the cash flow it generates. Loans are risky assets, though a bank interest most of its resources in granting loans and advances. If an individual bank has around $10 \%$ non-performing assets or loans, it sounds the death knell of that bank other remaining the same. The objectives of bound loan policy are to maintain the financial health of the banks, which result in safety of depositor's money increases in the returns to the shareholders. Since
the loan is a risky asset there is inherent risk in every loans, however, the bank should not take risk above the certain degree irrespective of the returns prospects.

### 2.4 Classification of NPA:

As per the NRB directives NPA are said as classified loans. And this includes substandard, doubtful and loss categories as defined by new NRB directives. The circular further says a NPA is a credit facility in respect of which interest has remained unpaid for two quarters.

According to the circulars, the loans are classified based on weakness and dependence on collateral securities into four categories and prescribed the provisioning rate as follows:

Table 2.1

## Classification of Loan and Advances



Source: Nepal Rastra Bank, Directives for commercial banks.

### 2.5 Effects of NPA on Profitability of Banks :

Under the circumstances assets that do not earn any income to the bank affect the profits in a number of ways, which are explained as follows (Koirala, Subash, (2006): 38-40):

## Profitability Impact:

- The resources locked up in NPA are borrowed at a cost and have to earn a minimum returns to service this cost.
- NPA on the one hand do not earn any income but on the other hand drain the profits earned by performing assets through the claim on provisioning requirements.
- Since they do not earn interest they bring down the yield on advances and the net interest margin or spread.
- NPA have a direct impact on assets and returns on equity, the two main parameters for measuring profitability of the commercial banks.
- Return on assets will be affected because while the total assets include the NPA they do not contribute to profits, which are the numerators in the ratio.
- Return on equity is also affected as provisioning eats more and more into profits earned.
- The cost of maintaining these include administration costs, legal costs and cost of procuring the resources locked in them.
- NPA bring down the profits, affects the shareholders value and thus, adversely affect the investor confidence.

As a whole, the impact of NPA can be assessed with the following:

- Lower ROE and ROA
- Lower image and rating of banks
- Disclosure reduces investor's confidences.
- Increases costs/difficulties in raising capital.
- NPA do not generate income.
- They require provisioning.
- Borrowing cost of resources locked in
- Opportunity loss due to non-recycling of funds.
- $100 \%$ risk weight on net NPA for CRR.
- Capital gets blocked in NPA.
- Utilizes capital but does not generate income to sustain the capital that is locked.
- Recapitalization by government comes with string.
- Administration and recovery costs of NPA.
- Effects in employee morale and decision.


### 2.6 Causes and Measures of NPA:

(Country-wise Analysis)
(Source: Reddy, Prasant K"A comparative study of NPA in India in the Global contextsimilarities and dissimilarities, remedial measures, a report page 4-8). He has found noticeable improvements in the financial health of Indian banks in terms of asset quality. Further, pre and post reform NPA levels are not strictly comparable as a result of significant tightening of accounting norms. He found out that the regulation made by RBI
to build provision up to at least a level of $50 \%$ of their gross NPAs save decreased the level of NPA. In his paper he has conducted country wise analysis and pointed out the causes and measures of NPA.

Summary of his finding has been presented to gain deep understanding of causes NPAs and measure adopted by those countries.

## CHINA

## Causes

1. Moral Hazard: The SOE's believe that there the government will bail them out in case of trouble and so they contribute to take high risks and have not really strived to achieve profitability and to improve operational efficiency.
2. Bankruptcy laws favors borrowers and law courts are not_reliable enforcement vehicles.
3. Political and social implications of restructuring bi SOE's force the government to keep them afloat.
4. Banks are reluctant to lend to the private enterprises due to
a. Non standard accounting practices.
b. While an NPA of a SOE is financially undesirable. An NPA of a private enterprise is both financially and politically undesirable.

## Measures:

1. Reducing risk by strengthening banks, raising disclosure standards and spearheading reforms of the SOE's by reducing their level of debt.
2. Laws were passed allowing the creation of assets management companies, foreign equity participation in securitization and asset- backed securitization.
3. The government, which bore the financial loss of debt 'discounting' debt/equity swaps were allowed in case of a growth opportunity existed.
4. Incentives like tax breaks, exemption from administration fees and clear cut assets evaluation norms were implemented.

## THAILAND

## Causes

1. Liberalized capital and current account and external borrowings with inaccurate assessment of exchange rate risk of capita flight in a crises.
2. A legal system that made credit recovery time consuming and difficult.
3. Real estate's speculators look massive loans projecting high growth in demand and prices of properties. When this did not materialize all the loans went bad.
4. Steep interest rate rise turned a lit of loans into NPAs.
5. Inability to correctly assess credit risk.

## Measures:

1. Amendments were made to the Bankruptcy Act.
2. Corporate Debt Restructuring Plan (1998) focused on capital support facilities for bank recapitalization and setting up of AMC' .
3. New rules governing NPA exit procedures based on international standards were introduced.
4. Privatization of government entity was mooted but faced strong political oppositions for fear of a social backlash.
5. Adoption of international standards for loan classification and provisioning.
6. Caps on foreign equity ownership in financial institutions were removed.

## KOREA

## Causes

1. Directed Credit: Protracted periods of interest rates control and selective credit allocations gave rise to an inefficient distribution of funds. The Chaebol's focus on increasing market share and pursuing diversification with little attention to profitability caused tremendous stress on the economy.
2. The "compressed growth" policy via aggressive, leveraged expansion worked well as long as the economy was growing and the ROI exceeded the cost of capital. This strategy backfired when slowing demand and rising inputs costs placed severe stress on the profitability.
3. Lack of Monitoring- Banks relied on collaterals and guaranteed in the allocation of credit, and little attention was paid to earnings performance and cash flows.
4. Contagion effect from South East Asia coincided with a period of structural adjustment as well as a cyclical downtown in Korea.

## Measures:

1. Speed of action: The speedy containment of systematic risk and the domestic credit crunch problem with the injection of large public funds for banks recapitalization were critical steps towards normalizing financial system.
2. Corporate restructuring vehicles (CRVs) and debt/equity swaps were used to facilitate the resolution of bad loans.
3. Creation of Korea Asset Management Corporation (KAMCO) and NPA fund to finance the purchase of NPA's.
4. Securitization KAMCO's recoveries came through asset-backed securitization and outright sales. International investors like loan star fund participated in the process.
5. Strengthening of provision norms and loan classification standards based on forward -looking credit (like future cash flow) were implemented.
6. The objectives of the central bank were solely defined as maintaining price stability. The Financial Supervisory Commission (FSC) was created (1998) to ensure an effective supervisory system in line with universal banking practices.

## JAPAN

## Causes:

1. Investments were made Real Estate at high price during the boom. The recession caused prices to crash and turned a lot of these loans bad.
2. Legal mechanisms to dispose bad loans were time consuming and expensive and NPA's remained in the balance sheet.
3. Expansionary fiscal policy measures administered to stimulate the economy supported industrial sectors like construction and real estate, which may have further exacerbated the problem.
4. Crony capitalism to the Keiretsus.
5. Weak corporate governance coupled with a non-bankruptcy doctrine was a moral hazard in Japanese economy.
6. Inadequate accounting systems and information flow makes assessment of loan performance outside a bank in Japan difficult.

## Measures:

1. Amendment of foreign exchange control law (1997) and the threats of suspension of banking business in case of failure to satisfy the capital adequacy ratio prescribed. Legislation to improve information flow has been passed.
2. Accounting standards: - Major business groups established a private standard setting vehicle for Japanese accounting standards (2001) in line with international standards.
3. Government supports: - The government's committee public funds to deal with banking sector weakness.

### 2.7 Reviews of Articles/ journals:

On the way of conducting this research work, some books, journals and publications have been studied to formulate ideas about the subject matter. Although, the specific books regarding the NPA could not be found, however, some banking related books have been consulted such as Tannan's Banking Law and Practices in India, (1997). Assessing the
gravity of the problem Tannan found that the banks and financial institutions at present face considerable difficulties in recovery of dues from the clients and a significant portion of the funds of the banks and financial institutions is thus, blocked in unproductive assets.

In India addressing the question of speeding up the process of recovery was examined in great detail by committee set-up by the government under the chairmanship of the Late Shri Tiwari.

The banker magazine of September 2006 issue, the chief editor Madhukar Adhikari in his article "it should be justifiable" has argued in favor of the businessman. He says businessmen are not only helpful for the country but also the major taxpayer to the government. Recently Nepal government has introduced the policy to seize the passport of the international defaulter but it is difficult to identify the intentional defaulter. Due to the years of crises in the country, they are the most affected group and if the salutation is not considered capital, may fight to the neighboring country, which is ultimately loss for the nation.

Satyandra Prara Shrestha, ex- governor of Nepal Rastra Bank in his article published in the Boss magazine says, the management of bad loan is high - prioritized exercised in te country for past 10 years. But the remarkable achievements have not been signed yet. Handover of management of two big government banks is an example of financial sector reform action in the country. It has been almost 4 years of handover of management of two big government banks to the foreign expert but the achievement is not satisfactory.

He identifies not only government banks but private sector banks are also slowly affected but the non-performing loan. Therefore, a strong focus should be made by the management to reduce the level of NPL. He believes in coordination between the borrower and the lender. He further says, if a viable project is not being completed in time and not being able to pay its interest in time, the bank and the project owner should sit together and find out the way to complete it rather than blacklisting and running towards the legal action.

Former second vice president of FNCCI Mr. Dwarika Golchha in his first article published in the business age has shown his concern on the level of NPA of NBL and RBB often discussed has a logical treatment. Because, the reported nonperforming loan consists of loan of some such business houses whose business has been suspended a decade ago but the bank is carrying the loan as non-performing loan, which ultimately going to increase the NPL of such banks.

Suneja, (1992) pointed out the causes of NPA that the risk connected with lending to business depends on an enormous number of factors. For any particular type of business the risk failure is affected. The state of economy trend in demand for the project or service provided competition from any other suppliers, financial resources are too limited and management skills are lacking. Reiterating the difficulties that Suneja says probably the most difficult decision facing a banker is to determine when it becomes necessary to recall a loan and to begin the process of liquidating the security. Further she suggests that if a customer fails to make repayment on the due date, the bank has to consider what steps need be taken to recover the debt.

Basyal (2057), discussing the financial performance of government owned banks in the article, "Placing RBB and NBL under Management Contracts Rational and Opposition" agreed that the disappointing performance of these two banks has become serious concern to all the stakeholders. Further he mentions that they are having with huge level of NPA, which could be termed as the darkest sides of their operational inefficiency and undisciplined financial behavior.

Ghimire (2056) in her article, "efficiency indicators of commercial bank" she has made a comparative analysis and found that efficiency indicator of the banks may be viewed on the basis of amount allocated for loan loss provisioning against loan and investment.

Pradhan (2058) in his article, "NPA Some suggestion to tackle them" expressed that unless the growth of NPA is kept in control, it has the potential to cause systematic crisis. He has mentioned that a dream of globalization led to huge investment which unfortunately could not be utilized properly due to hesitant liberalization policies. Large corporate bodies misused the credits and delayed payments and contributed indirectly for enhancing NPA ratio. He further argues that lack of vision in appraisal of proposal while loan sanctioning, reviewing or enhancing credit limits, absence of risk management policy of financing, concentration of credit in few group of parties and sector, lack of coordination among various financiers, lack of initiatives, to take timely action against willful defaulters, indecision on existing out of bad loans for fear of investigating agencies like special policy, CIAA, Public Accounts Committee of the parliament have
also contributed in whatsoever measures to the worsening situation of NPA front. He further pointed out that most crucial reason for the increase in the NPA is the shabby and defaulter friendly legal system. Suggesting the remedy of NPA, he adds that administrative system should be strengthened. Legal reforms should be made and Assets Reconstruction Company should be formed. Henderson (2003) CEO of RBB during his interview to New Business Age agrees that the challenging target of RBB turn around in restructuring and collection of NPA.

### 2.8 Review of Related Thesis:

Dinesh Kumar Khadka, (2004) "Non-Performing Assets of Nepalese Commercial Banks", his objectives to study and examine the level of NPAs in total assets, total deposits and total lending of commercial banks of the banking industry of Nepal. He also had studied whether the Nepalese commercial banks have been following the directives of NRB regarding loan loss provision for non-performing loan/assets or not. He had taken sample banks as Nepal SBI Bank Limited, Nepal Investment Bank Limited, Nepal Bangladesh Bank Limited, Bank of Kathmandu Limited, Nabil Bank Limited. From his studies, it is found that the level of NPA of Nepal Bangladesh Bank Limited seemed greater than all of the other banks under his study. Similarly, Nepal SBI Bank and Bank of Kathmandu stand at second and third position respectively. The position of Nabil Bank Limited seemed to be quite satisfactory because, the bank has been reducing its NPA every year. NPA of Nepal Investment Bank reducing it at minimum than that of all the other banks. From the study it has also been found that none of the banks have been following the directives of NRB regarding the loan loss provision. Despite of high level
of NPA the loan loss provision made by the Nepal Bangladesh Bank seemed to be quite satisfactory than any of the other banks. Despite of the outstanding success in managing the NPA the loan loss provision made by Nepal Investment Bank is not considerable. It meant the loan loss provision of Nepal Investment Bank is very less than the requirement.

Govinda Ghimire (2005) "Non Performing Assets of Commercial Banks" main objectives to evaluate the impact of NPA on the profitability of the commercial banks. He also studied about the internal and the external factors that affect the non-performing assets to increase from the loan and advances. The internal factors that influence the effective management of the NPA and its increment. The objective of his study is also to find out the relationship between the non-banking assets and the non performing assets, in which he was able to find out the internal responsible factors that contribute turning good loan into bad loans, bad intention, weak monitoring and mismanagement are the most responsible factors. Similarly, weak legal provision and credit concentration are also found as the least preferred factors in turning good loans into bad loans. Some factors such as lack of portfolio analysis, not having effective credit policy and shortfall on security were identified as having average effect on NPA growth. In connection to the external factors it has been found that recession, political and legal issues are more relevant factors in turning good loans into bad one. Likewise legal provision for recovery as a reason for increment in NPA in Nepalese Banks have been found the factors having less impact. Supervision and monitoring system have been identified as average factors. It is therefore, can be generalized that economic and industrial recession and not having
strong legal provision for loan recovery are the major external factors that have major contribution for the increment of NPA.

It has also been concluded in the study that Nepalese Commercial Banks gave must priority to trade sector for lending its resources, at the same time it is found that service sectors are not being given that much emphasis. He had recommended to the sample banks, Nepal Bangladesh Bank Ltd. Nepal SBI Bank Ltd and Bank of Kathmandu Ltd. as on different headings, subject matter such as financial strength, personal integrity and security, monitoring and control system, avoidance of credit concentration, strong legal system, assets management company, avoidance of undue pressure, etc.

Niva Shrestha, (2004) "Non performing loans and loan loss provisioning of the commercial banks" revealed that the Standard Chartered Bank Limited had risk averse attitude of the management or they have policy of investing low in the risky assets i.e. loans and advances as compared to Nepal Bank Limited and Nabil Bank because the loans and advances to total assets ratio on NBL, NABIL and SCBNL during the study period was appeared to be $52.3 \%, 47 \%$ and $29.34 \%$ respectively. The SCBNL has higher proportion of the investment in risk free or nominally risky assets like treasury bills, National Saving bonds etc.

Similarly the loans and advances to total deposits ratio of NBL, NABIL and SCBNL during the study period was found to be $57.63 \%, 56.35 \%$ and $35.94 \%$ respectively. It indicates that the SCBNL has the most consistent and variability during the study period
whereas the NBL has the higher consistent and variability as compared to other two banks. NABIL has the moderate level of consistent and variability.

In the same way, the proportion of Non Performing loan with regard to total loans of NBL, NABIL and SCBNL was found to be $48.37 \%$, $10.67 \%$, and $4.38 \%$ respectively. That means $51.63 \%, 89.33 \%$ and $95.62 \%$ of the total loan of NBL, NABIL and SCBNL was found to be performing loans. Not only the public sector bank, even private sector bank like NABIL has higher proportion of non-performing loan. However, in recent years, NABIL has shown significant decrement in non-performing assets, which are the efforts of recovering bad credit through the recovery of establishment of recovery cell.

In the same way, proportion of loan loss provision of NBL was found to be significantly higher i.e. $40.17 \%$ as compared to other two commercial banks. The proportion of NABIL and SCBNL was found to be $5.69 \%$ and $4.49 \%$.

The average ratio of provision held to non performing loan of NBL, NSABIL and SCBNL was found to be $80.03 \%, 57.85 \%$ and $122.32 \%$ respectively shows that the SCBNL has maintained adequate level of provision against non performing loan where as NABIL was found to be comparatively lower. The NBL was found to be an average position.

Subash Koirala, (2006) "Non performing assets and profitability of commercial banks in Nepal" his objectives was to evaluate the impact of NPA on the profitability of the commercial banks. he also studies about the internal and external factors those influence the performing assets to non performing one. He had taken sample banks as Nabil bank

Limited, Himalayan Bank Limited, Nepal Bangladesh Bank Limited, Everest Bank Limited, Nepal SBI Bank Limited and Nepal Investment Bank Limited.

The NPA of Nepal Investment Bank during the study period was increasing. The ratio of NPA to lending was found to be decreasing over the years as it was $8.29 \%$ in fiscal year $2057 / 58$ and decreased to $2.69 \%$ in the fiscal year 2061/62. The net profit was also increasing during the study period.

In case of Everest Bank Limited, the level of NPA was decreased to $1.6 \%$ on the fiscal year 2061/62 which was $6.79 \%$ in the fiscal year 2057/58. The NPA was increasing during this period and despite of the increasing NPA profit of the bank was found to be increasing during study period.

In case of Nepal Bangladesh Bank Limited, the level of NPA was increased from 9.03\% in fiscal year 2057/58 to $19.04 \%$ in fiscal year 2061/62. The NPA of the bank was found to be increased and that causing the gradual decrease in the profitability of the bank.

The NPA of the Nabil Bank Limited was decreased up to one fifth from the fiscal year $2057 / 58$ to fiscal year 2061/62. The level of NPA was found to be decreased from $16.20 \%$ in fiscal year $2057 / 58$ to $1.32 \%$ in fiscal year 2061/62 whereas the ROA was found to be increased from $1.71 \%$ to $3.06 \%$ over the five years period.

In case of the Nepal SBI Bank Limited, the level of NPA was found to be fluctuation in it. Although it was decreasing it was not desirable level. The level of NPA in fiscal year $2057 / 58$ was $8.64 \%$ and in fiscal year 2061/62 it was $6.54 \%$.

The NPA of Himalayan bank Limited was found to be fluctuating during the study period though it was found to be decreased in fiscal year 2061/62 in comparison to fiscal year 2057/58. The level of NPA was found to be highest for the Nepal Bangladesh Bank Limited in the fiscal year 2061/62, whereas the lowest was found that of Everest Bank Limited in fiscal year 2058/59. In overall the performance of the Nabil Bank was found to be satisfactory as the level of NPA was gradually decreasing over the years covered by this study.

### 2.9 Research Gap.

From the study of previous thesis it has found that increasing Non-performing assets is one of the major challenges faced by Nepalese commercial banks in the present context. Some researchers were done in which matter relating to loan loss provision for Nonperforming assets or not. Some researcher was done what is the internal and external factors affects the Non performing assets to increase from the loan advances. The previous theses covered only up to the fiscal year 2061/62 but this thesis also based on secondary data provided by concerned Nepalese commercial banks up to the fiscal year 2066/67. Hence, this thesis had attempted to fill this research gap by taking the reference of Nabil Bank Limited, Everest Bank Limited, Himalayan bank and Nepal Investment

Bank. This research will be able to deliver some of the present issue, latest information and data relating to Non-performing assets.

## CHAPTER III

## RESEARCH METHODOLOGY

### 3.1 Introduction:

Research is a systematic inquiry for seeking facts and methodology is the method of doing research in well manner. So research methodology means the analysis of specific topic by using proper method. Research methodology is a way to systematically solve the research problem (Kothari, 1990: 10). It describes the method and process applied in the entire aspect of the study. In this chapter, the research design, data collection procedure and procedures concerning analysis of data are described thoroughly. Analysis is conducted by using appropriate financial and statistical tools and the findings are presented in a systematic way.

### 3.2 Research Design:

This research is based on the secondary data. It is simply an analytical and descriptive research.The main objective of this study is to analyze the relationship between NPA and Profitability of the commercial banks and provide suggestion on the basis of findings. To fulfill this purpose, the study follows the analytical and descriptive research design. It also analyses the loan loss provision maintained by commercial banks.

In order to achieve the predetermined objectives of the study, secondary data have been used. This study tries to make comparison and establish relationship between two or more variables. So the research design of this study is based on descriptive and analytical
study. The collected data are analyzed by using financial as well as statistical tools such as profitability ratios, arithmetic mean, standard deviation etc.

### 3.3 Population and Sample:

Population refers to the entire group, people, events or things of interest that a researcher wishes to investigate. As this study is about loan classification and loan loss provisioning of commercial banks, all 25 commercial banks of Nepal are taken into accounts as population. Out of total population i.e. 25 banks, 4 commercial banks are selected as samples. The name of the 25 commercial banks is written in 25 pieces of paper and kept in the box. From that box 4 pieces are selected and these four commercial banks are the sample of study.

The population of the present study is listed as under, the commercial banks operating in the banking industry of Nepal.

## Table 3.1

## List of Commercial Banks in Nepal

| S. No. | Commercial Banks | Establishment Year B.S. | Head Office |
| :---: | :---: | :---: | :---: |
| 1. | Nepal Bank Limited | $1994 / 7 / 30$ | Kathmandu |
| 2. | Rastriya Banijya Bank | 2022/10/10 | Kathmandu |
| 3. | NABIL Bank Limited | 1984/07/16 | Kathmandu |
| 4. | Nepal Investment Bank Limited | 2042/11/26 | Kathmandu |
| 5. | Standard Chartered Bank Limited | 2043/10/16 | Kathmandu |
| 6. | Himalayan Bank Limited | $2049 / 10 / 5$ | Kathmandu |


| S. No. | Commercial Banks | Establishment Year B.S. | Head Office |
| :---: | :---: | :---: | :---: |
| 7. | Nepal SBI Bank Limited | $2050 / 3 / 23$ | Kathmandu |
| 8. | Nepal Bangladesh Bank Limited | $2050 / 2 / 23$ | Kathmandu |
| 9. | Everest Bank Limited | 2051/7/1 | Kathmandu |
| 10. | Bank of Kathmandu Limited | $2051 / 11 / 28$ | Kathmandu |
| 11. | Nepal Credit and Commerce Bank Limited | 2053/6/28 | Siddhartha nagar |
| 12. | Lumbini Bank Limited | 2055/4/1 | Chitwan |
| 13. | Nepal Industrial and Commercial Bank Limited | 2055/4/5 | Kathmandu |
| 14. | Machhaputhhre Bank Limited | 2057/6/17 | Pokhara |
| 15. | Kumari Bank Limited | 2057/12/21 | Kathmandu |
| 16. | Laxmi Bank Limited | $2058 / 12 / 21$ | Birjung |
| -17. | Siddhartha Bank Limited | 2059/9/9 | Kathmandu |
| 18. | Agricultural Development Bank Limited | 2024/11/7 | Kathmandu |
| 19. | Global Bank Limited | 2063/9/18 | Birjung |
| 20 | Citizens Bank International Limited | 2064/1/7 | Kathmandu |
| 21 | Prime Bank Limited | 2064/6/7 | Kathmandu |
| 22 | Sunrise Bank Limited | $2064 / 6 / 25$ | Kathmandu |
| 23 | Bank Of Asia Nepal Limited | $2064 / 6 / 25$ | Kathmandu |
| $2 \overline{4}$ | Development Credit Bank Ltd. | 2001/01/23 | Kathmandu |
| 25 | NMB Bank Ltd. | $1996 / 1 / 26$ | Kathmandu |

Source: Annual report of NRB 2064/65

The following are the banks, which are taken as sample for the study.

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

### 3.4 Sources of Information:

The main sources of information are the concerned banks and their published documents, NRB and its published documents, experts' views, newspaper, and many others if possible. The major sources of data may be the secondary sources of data are the information received from the books, journals, newspapers, published reports and dissertation etc. The major sources of secondary data are:

- Economic survey, Ministry of Finance
- Nepal Rastra Bank Directives
- Nepal Rastra Bank Samachar
- Annual General Reports of the concerned commercial banks.
- National and international newspaper, journals, magazines etc.
- NEPSE journals
- And many other books as far as possible.
- Different websites


### 3.5 Tools for Analysis:

Few statistical packages such as Excel are used to process and analyze information. Secondary information collected from annual general reports of the sample banks was first tabulated in Excel spreadsheet and then analyzed using formula and charts of the same software. For these statistical tools such as correlation analysis is done and in some cases, financial tools such as Returns on assets have also been made. Suitable tools such as descriptive statistics, Mean, Standard Deviation, Co-efficient of Variation, Coefficient of correlation etc. were done wherever necessary.

## - 3.5.1 Financial Tools

To evaluate the financial position and performance of any firm ratio is used as a key tool of financial analysis. "Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet and profit and loss account". Financial Analysis is the use of financial statements to analyze company's financial position and performance and to assess future financial performance.

### 3.5.1.1 Ratio Analysis

Ratio Analysis is a tool of scanning the financial statement of the firm. It is simply one number expressed in terms of another and as such it expresses the numerical and quantitative relationship between two variable. Through this, one comes to know that in which areas operation the organization is strong and in which areas it is weak. Ratio Analysis is the widely used tool of financial analysis, a ratio is used as a benchmark for evaluating the financial position of the firm. Ratio Analysis reflects the relative strengths
and weaknesses of any organization and also indicates the operation and financial growth of the organization. "Ratio helps to summarize large quantities of financial data and to make quantitative judgment about the firm's financial performance. The relationship between two accounting figures expressed mathematically is known as financial ratio". Even though there are many ratios, only those ratios, only those have been calculated which are related to the subject matter. Following ratios have been computed and analyzed in this study.

## - Loans and Advances to Total Assets Ratio

Total assets side of a bank is composition of different assets among them some generated income and some do not generate income. Among income generating assets loan and advances are the high income generating assets therefore management always tries to increase the portion of loan and advances in total assets and decrease non income generating portion of assets from total portfolio. The ratio of loans and advances to total assets measures the volume of loans and advances in the structure of total assets. The high degree of ratio indicates the good performance of banks mobilizing its fund by way of lending functions. However in its reverse side, the high degree indicates low liquidity with the bank. Loans and advances always carry certain degree of risk. Thus this asset of banking business is regarded as risky assets. The low ratio indicates low productivity and high degree of safety in liquidity and vice versa. This ratio is calculated as follows.

Loan and Advances to Total Assets $=\frac{\text { Loan and Advances }}{\text { Total Assets }}$

## - Credit Deposit Ratio(CD Ratio)

CD Ratio is the most important tool to analyze the profitability of a bank. Since, all depositors has to pay interest and if any deposit is not utilized in profit earning way it will decrease net interest income of that bank. CD ratio is the parameters, which ascertain fund deployment efficiency of commercial bank. In other words, this ratio is calculated to find out how successfully the banks are utilizing their total deposits on credit or loans and advances for profit generation purpose as loans and advances yield high rate of return. Greater CD ratio implies the better utilization of total deposits and better earning, however, liquidity requirement also needs due consideration. Hence, management should always try to make better contribution of risk and return. This ratio is calculated by dividing total credit by total deposit of the bank.

Credit Deposit Ratio $=\frac{\text { Loan and Advances }}{\text { Total Deposit }}$

## - Loan Loss Provision to Loan and Advances ratio

Loan loss provision to loan and Advances shows percentage of loan is covered against the possible future loss due to non-repayment of loan. This ratio describes the quality of assets in the form of loan and advances that a bank is holding. Since, there is risk inherent in loan and advances. NRB has directed commercial banks to classify its loan and advances into different category and accordingly to make provision for possible loss. Loan loss provision signifies the cushion against the future contingencies created by default of the borrower in payment of loan and ensures the continuous solvency of the
bank. Since high provision has to be made for non-performing loan, higher provision for loan loss reflects increasing non performing loan in volume of total loan. The total ratio signifies the good quality of assets in the volume of total loan. It indicates how efficiently it manages loan and advances and make effort to cope with probable loan loss. Higher ratio implies higher portion of NPL in the total loan portfolio. The ratio is calculated as follows.
Loan Loss Provision Ratio $=\frac{\text { Loan loss provision }}{\text { Total Loan and Advances }}$

## - Non-Performing Loan to Total Loan

Total loan is divided into two category performing loan and non-performing loan. Nonperforming loan to total loan ratio determines the proportion of non-performing loan in the total loan portfolio. Higher ratio implies the bad quality of assets of banks in the form of loan and advances. Hence, lower NPL to total credit ratio is preferred. The ratio is calculated as follows.
NPL to Total Loan and Advances $=\frac{\text { Non- performing loan }}{\text { Total Loan and Advances }}$

## - Total Provision to Non Performing Loan

NRB has directed all commercial banks to provide provision for all types of loans and advances. Even performing loan needs to provide loan loss provision at the rate of $1 \%$ and $12.5 \%$. This ratio determines the proportion of provision held to non-performing loan. This ratio measures up to what extent of risk inherent in NPL is covered by the total loan loss provision. More than $100 \%$ ratio signifies that the bank is safeguard against the future contingencies that may create due to bad loans, where as lower than $100 \%$ may
create huge provision in coming future due to requirement of high provision to substandard loan advancers. This ratio is calculated as follows.

## Loan loss provision <br> Loan loss Provision to NPL= Non- performing loan

## - Return to Loan and Advances

Net profit is the amount recovered after deducting all kinds of liabilities therefore various ratios are calculated in relation with the net profit. Return on loan and advances ratio indicates how efficiently the bank has employed its resources in the forms of loan and advances. Net profit of a bank largely depends upon interest earn from loan and advances and net profit. This ratio measures the bank's profitability with respect to loan and advances. Higher the ratios better the performance of the bank and vice-versa. This ratio is calculated as follows.

Net Profit

Return to loan and Advances $=\frac{\text { Loan and Advances }}{\text { Lon }}$

### 3.5.2 Statistical Tools

Financial tools are not only enough to analyze the relation between variables therefore statistical tools are also used to have better understanding and interpret the result. Statistical tools are the mathematical technique used to analyze and interpret the result. It is used to describe the relationship between variables and interpret the result. Statistic is also used to test the hypothesis that is set to know the information of population. Following statistical tools have been used to facilitate the study.

### 3.5.2.1 Percentage

A percentage is a number of hundredth parts of one number to another. It is simplest statistical tools used to interpret of phenomenon. Percentage is calculated as follows.

## B

Percentage $(\mathrm{P})=\quad-\times 100$
A
Where,
$\mathrm{A}=$ Base used to compare
$\mathrm{B}=$ given data to be compared with the base

### 3.5.2.2 Average:

Average is the simple and mostly used statistical tool to measure the central value. Average is a single figure, which describes the entire distribution. It is the best possible value of a group of variables that singly represents to whole group. In the statistical analysis the central value falls within the approximately middle value of the whole data. Among the several tools of measuring central value, the mean has been used in this analysis where and when necessary. Average is calculated as follows.

$$
\text { Average (mean) } \bar{X}=\frac{\sum X}{N}
$$

### 3.5.2.3 Measurement of dispersion

Dispersion measures the variation of the data from the central value. The central value alone is not enough to analyze the data. To analyze the deviation of actual value from
central value, dispersion is used. Following tools of measuring dispersion has been used in this study.

## 1. Standard Deviation

Standard deviation is the most popular and useful measure of dispersion. It indicates the range and size of deviation from the middle of mean. It measures the absolute dispersion. Higher the value of standard deviation, higher is the variability and vice-versa. Standard deviation is calculated as follows.

Standard Deviation (S.D) $=\sqrt{\frac{\sum(X-\bar{X})}{N}}$

## 2. Coefficient of Variation (C.V.)

The percentage measures of coefficient of standard deviation is called coefficient of variation. The less is the C.V the more is the uniformity and consistency and vice-versa. Standard deviation gives an absolute measure of dispersion. Hence, where the mean value of the variable is not equal it is not appropriate to compare two pairs of variables based in S.D. only. The coefficient of variation measures the relative measure of dispersion. It is the relative measurement of risk with return. It measures the risk per unit of return. It provides a more meaningful basis for comparison when the expected returns on two alternatives are not the same. The higher coefficient of variation, higher the risk. Hence, capable to compare two variables independently in terms of their variability.

Coefficient of Variation (C.V.) $=\frac{\text { Standard Deviation }}{\text { Mean }}$

## 3. Coefficient of correlation (r):

Correlation Analysis is another important tool of statistic. The correlation coefficient indicates the linear relationship between two or more variables and shows the degree of relationship between two or more variables. It shows the association between the variables. The two variables are said to be correlated when the change in one variable result in change in another variables. The measures of correlation called the "correlation coefficient" can be summarized in one figure, the degree and direction of movement. It can be calculated by using the method of Karl Person's correlation coefficient, because it is one of the widely used mathematical methods of calculation, the correlation coefficient between two variables. In symbolically, it is defined as:

$$
\mathrm{r}=\frac{N \sum X Y-\sum X \sum Y .}{\sqrt{\sum X^{2}-\left(\sum X\right)^{2} \sqrt{\sum Y^{2}-\left(\sum Y\right)^{2}}}}
$$

Where,
$\mathrm{R}=$ Coefficient of Variation
Assumptions

- If $\mathrm{r}=1$, there is positively perfect correlation between the two variables.
- If $\mathrm{r}=-1$, there is negatively perfect correlation between the two variables.
- If $r=0$, the variables are uncorrelated.

The nearer the value of $r$ to +1 , the closer will be the relationship between two variables and the nearer the value of $r$, the lesser will be the relation.

## Probable error (P.E):

The probable error of the correlation coefficient helps to interpret its value. P.E., which is the measure of testing the reliability of correlation coefficient, denotes it. If $r$
be the calculated value of r from a sample of n pair of observation the P.E. is denoted by

$$
\text { P.E. }=\frac{0.6745\left(1-\mathrm{r}^{2}\right)}{\sqrt{\mathrm{n}}}
$$

It can be interpreted to know whether its calculated value of $r$ is significant or not in the following ways.

- If $\mathrm{r}<\mathrm{PE}$, it is Insignificants perhaps there is no evidence of correlation
- If $\mathrm{r}>6 \mathrm{PE}$, it is significant.

It is other causes, nothing can be concluded. The probable error of correlation may be used to determine the limits within which the population correlation coefficient lies. The limits for population correlation are $\mathrm{r}+\mathrm{PE}$

### 3.5.2.4 Diagrammatic and Graphical Presentation

Diagrammatic and Graphical Presentation gives bird eye view of a given set of numerical data. They represent the data in simply and readily comprehensive form. Hence, bar diagram and graphic presentation has been also analysis.

## CHAPTER IV

## DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction:

In this chapter, efforts have been made to present and analyze the collected data. Data collected from various sources were classified and tabulated as requirement of the study and in accordance to the nature of the data. Different arithmetical and statistical tools are used to analyze the data collected under the study. To make easier and clearer to the understanding of the study, data are presented in the tables and figures also.

Simple percentage is used to analyze the data as arithmetical tools. Karl's Pearson's correlation coefficient is used to analyze the data as statistical tool.

Nowadays Non-Performing Assets (NPA) have been occupying major space in the total assets and total lending of the bank. It stands around $15 \%$ in the Nepalese banking system while it is even worse in case of two large commercial bank, Rastriya Banijya Bank (RBB) and Nepal Bangladesh Bank limited. The NPA of RBB is found $15.7 \%$ while that of Nepal Bangladesh Bank is $19.3 \%$ of the total lending. In this way it shows that commercial banks have been suffering by high level of NPA, and the efforts of the banks have been diverted to reduce it.

Keeping this fact into consideration, a provision has set up by Nepal Rastra Bank in Fiscal year 2057/58 to control the level of NPA of Nepalese commercial banks.

According to that provision, every bank has to classify its total loan and advances (including purchased and discounted bills) as pass loan, substandard loan, doubtful loan and bad loan, on the basis of overdue against schedule. Commercial banks are also directed to maintain loan loss provision as stated in section 11 of directives no. 2 of NRB's directives for commercial banks 2059. Main purpose was to find out the level of NPA in Nepalese commercial banks and to take necessary steps to control the level of NPA in future.

Here in the study, data of five fiscal year starting from F/Y 2062/63 to 2066/67 have been presented to study and analyze the level of NPA in total assets, total lending and total deposits of the commercial banks. Data are also presented to examine or analyze the efforts to NPA on the profitability of the banks under study.

### 4.2 Data presentation and Analysis of Sample Banks:

### 4.2.1 Data Presentation and Analysis of " EVEREST BANK LIMITED":

Table 4.2.1 (1)
Relation between NPA, Net profit, Total lending and Total deposit

| Ratio / year | 2062/63 | 2063/64 | 2064/65 | 2065/66 | 2066/67 | Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NPA to Total Lending | 1.27 | 0.80 | 0.68 | 0.48 | 0.16 | 0.678 |
| Total Le-rding to Total Deposit | 73.4 | 77.4 | 78.6 | 73.43 | 76.24 | 75.81 |
| Net Profit to Total Assets | 1.5 | 1.40 | 1.70 | 1.73 | 2.09 | $1.68{ }^{-7}$ |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67

Fig 4.2.1(1)


From Table and Figure 4.2.2 (1), it can be said that the ratio between the Non performing assets and total lending was found to decreasing over the five years period. In the fiscal year $2062 / 63$ it was found to be at $1.27 \%$, which highly decreased to $0.80 \%$ to the following year, and in the fiscal year 2064/65 it was slightly decreased and found to be 0.68 . In the fiscal year 2065/66 the non performing assets to total lending ration was found $0.48 \%$ and in year 2066/67 it decreased to 0.16 and the average ratio between NPA and total lending of five years period was $0.678 \%$.

The total lending to total deposit ratio was following decreasing trend over five years period. In fiscal year 2062/63 it was found to be $73.4 \%$ and was found to be increased in the following years and had reached to $77.4 \%, 78.6 \%$ in the fiscal year 2063/64 and 2064/65 respectively. Whereas in the year 2065/66 it decreased to $73.43 \%$ And, finally it was increased to $76.24 \%$ at the end of year 2066/7. The average ratio between total lending to total deposit of five years period was $75.814 \%$.

And the net profit to total assets ratio was also found to be decreased in year 2063/64 i.e. 1.4 as compared to year 2062/63 i.e. 1.5. Where as it was found to be increasing in preceding year i.e. $1.7 \%, 1.73 \%, 2.09 \%$ in year 2064/65,2065/66, and 2066/67 resp. The average ratio between net profits to total assets of five years period was $1.684 \%$.

Table 4.2.1(2)

## Relation between Net Profit and Total NPA

| Fiscal year | Net Profit | Total NPA |
| :---: | :---: | :---: |
| 2062/63 | 237,290, 936 | 129,235,790 |
| 2063/64 | 296,409,281 | 113,178,936 |
| $2064 / 65$ | 451,218, ${ }^{-13}$ | 127,310,368 |
| 2065-6] | 6 $\overline{3} \overline{8}, \overline{7} \overline{3} 2,7 \overline{7} \overline{7}$ |  |
| 2066/67 | 831,765, 632 | 43,705,982 |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67
In Table 4.2.2 (2), shows that the status of non-performing assets (NPA) and net profit of the bank in different years, in fiscal year 2062/63 to 2066/67. In fiscal year 2062/63 the NPA amount to Rs. 129235790 and Net Profit amount to 237290936 whereas NPA in year 2063/64 amount to 113178936 i.e. NPA decreased by Rs 16056854 (i.e. $12.42 \%$ ) in comparison of previous year. As the result the bank increase its profit by Rs 59118345 in comparison of previous year and net profit reached amounted to Rs 296409281 at the end of fiscal year 2063/64.

In fiscal year 2064/65, the NPA amount increased by Rs 7824687 (i.e.6.91 \%) in comparison of previous year. The net profit increased by Rs 154809332 (i.e. 52.22 \%) in comparison to previous year and reached NPA 121003623 and Net Profit 451218613 respectively at the end of the fiscal year.

In fiscal year 2065/66 the banks NPA decreased by 2.5 \% i.e. Rs 3018391 and reached to Rs. 117985232 . As a result the net profit of the banks increased $41.55 \%$ at the end of fiscal year 2065/66.

Similarly, in fiscal year 2066/67, the NPA decreased by 37.04 \% i.e. Rs 74279250 and reached to amount Rs 43705982. The net profit highly increased by amount Rs 193032875 i.e. 30.22 \% in comparison with previous year's net profit and reached to Rs 831765632 . The bank is able to earn more profit as the level of NPA has deccreased.

To make clearer the data of table 4.2.1 (2) also presented on the Figure 4.2.1 (2):
Fig 4.2.1(2)


## Loan loss provisioning of Everest Bank Ltd:

The loan loss provision maintains by Everest Bank Ltd. is presented in the following table.

Table 4.2.1 (3)
Loan loss provisioning of Everest Bank Ltd:

| Types of loan | Requirement as | Loan loss provision by the bank |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | per directives | 2062/63 | 063/64 | 2064/65 | 2065/66 | -20-7/67 |
| Pass loan | $1 \%$ of pass loan | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Sub-standard loan | $25 \%$ of substandard loan | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| Doubtful loan | $50 \%$ of doubtful loan | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 |
| Bad loan | $100 \%$ of loss loan | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source: Annex 1 (C)

Commercial bank has to maintained loan loss provision as per the NRB's directives for the commercial bank. Here, Everest Bank seems following the loan loss provision as per NRB's directives. From the fiscal year 2062/63 to year 2066/67, Loan loss provision for pass loan, substandard loan, doubtful loan and bad loan exactly met the NRB's directives, which is $1 \%, 25 \%, 50 \%$, and $100 \%$ of pass loan, substandard loan, doubtful loan and bad loan respectively.

### 4.2.2. Data Presentation and Analysis of " NABIL BANK LIMITED":

Table 4.2.2 (1)
Relation between NPA, Net profit, Total lending and Total deposit


Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67

Fig 4.2.2(1)


From Table 4.2.2 (1), it can be said that the ratio between the Non performing assets and Total lending was found to decreasing trend, although it has slightly increased to $1.47 \%$ in the year 2066/67. It is found to $1.38 \%$ for the fiscal year 2062/63 which is decreased to $0.74 \%$ at the end of fiscal year 2064/65. It later increased to $0.8 \%$ in the year 2065/66.The average ratio between NPA and total lending of five years period was $1.102 \%$. The decreasing trend of NPA to total lending ratio indicates the effectiveness in the management of NPA.

The total lending to total deposit ratio was in similar trend from year 2062/63 to $2064 / 65$. It is found to be $68.63 \%$ for the fiscal year 2062/63, which has decreased to $68.18 \%$ at the end of year 2064/65. It later increased to $73.87 \%$ in the fiscal year 2065/66 and later again decreased to $69.53 \%$ in the year 2066/67. The average ratio between total lending to total deposit of five years period was $69.66 \%$.

And the net profit to total assets ratio was also found to be fluctuating during the study period. It was $3.23 \%$ for the fiscal year 2062/63 which was decreased to $2.32 \%$ for the fiscal year 2064/65 and again it increased to $2.55 \%$ in the year 2065/66 later again decreased to $2.37 \%$ in the year 2066/67.The average ratio between net profit to total assets of five years period was $2.63 \%$. Decreasing trend of the profit in comparison to total assets of the bank showing mis- management of the bank.

Table 4.2.2 (2)

## Relation between Net Profit and Total NPA

| Fiscal year | Net Profit | Total NPA |
| :---: | :---: | :---: |
| 2062/63 | 635262439 | 182624480 |
| 2063/64 | 673959698 | 178293983 |
| $2064 / 65$ | 746468394 | 161085995 |
| 2065-6] | - $103 \overline{3} 105 \overline{5} \overline{0} 9 \overline{8}$ | - $22 \overline{4} \overline{8} \overline{17} \overline{4} 13$ |
| 2066/67 | 1139099399 | 486281521 |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67
In Table 4.2.2 (2), shows that the status of non-performing assets (NPA) and net profit of the bank in different years, in fiscal year 2062/63, the bank had NPA amount to Rs 182624480 and bank's net profit amount to be Rs 635262439. In fiscal year 2063/64the NPA amount to Rs. 178293983 i.e. NPA decreased by Rs 4330497 (i.e. $2.37 \%$ ) in comparison of previous year. As the result the bank increase its profit by Rs 38697259 (i.e. $6.09 \%$ ) in comparison of previous year and net profit reached
amounted to Rs 673959698 at the end of fiscal year 2063/64.The net profit further in the year 2064/65 increased by 72508696 i.e. $10.75 \%$ The profit is in increasing trend i.e for the year 2065/66 and 2066/67 the net profit increased by 284584704 and 108046301 i.e. $38.12 \%$ and $10.47 \%$ respectively while the non performing assets decreased to161085995 i.e. $9.65 \%$ during the study period in year 2064/65 .But in the following year 2065/66 and 2066/67 the non performing assets is 224817413 and 486281521 respectively i.e. it increased by $63731418(39.56 \%)$ and 216464108 (116.30\%).

Above analysis clearly states that the bank could able to increase its net profit due to decrement in non performing assets. So the bank should be continued to control over NPA.

To make more clear the data of Table 4.2.2 (2) also presented on the Figure 4.2.2 (2):
Fig 4.2.2 (2)


## Loan loss provisioning of Nabil Bank Ltd:

The loan loss provision maintained by Nabil Bank Ltd. is presented in the following Table 4.2.2 (3).

## Loan loss provisioning of Nabil Bank Ltd:

Table 4.2.2 (3)

|  | Requirement | Loan loss provision by the bank |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Types of loan | as per directives | 2062/63 | 2063/64 | 20665 | 2065/66 | 2066/67 |
| Pass loan | $1 \%$ of pass loan | 1.64 | 1.62 | 1.36 | 1.01 | 1.03 |
| Sub-standard <br> loan | $25 \%$ of substandard loan | 67.94 | 47.31 | 48.78 | 38.39 | 25.00 |
| Doubtful loan | $50 \%$ of doubtful loan | 47.00 | 49.19 | 49.94 | 51.41 | 50.00 |
| Bad loan | $100 \%$ of loss loan | 94.55 | 86.46 | 88.15 | 90.72 | 98.97 |

Source: Annex 1(A)

Commercial banks have to maintained loan loss provision as per the NRB's directives for the commercial bank. In fiscal year 2062/63, 2063/64 and 2064/65 Loan loss provision for pass loan was $1.64 \%, 1.62 \%, 1.36 \%$ respectively which was higher than the requirement as per NRB's directives. Here, in the latter year the bank seems to following the NRB's directives which is very close to it.

Loan loss provision for substandard loan is very high as compared to NRB's directives. Here, substandard loan loss provision in the year 2062/63 to 2065/66 is $67.94 \%, 47.31 \%, 48.78 \%$ and $38.39 \%$ respectively. Though the bank is trying to decrease its loan loss provision in order to meet the NRB's directives, the loan loss
provision is very high. But in the year 2066/67 the bank has meet the loan loss provision as per NRB's directives.

Doubtful loan and bad loan was found lower than the NRB's directives. The doubtful loan loss provision $47 \%, 49.19 \%, 49.94 \%$ in the year 2062/63 to 2064/65 resp.are found below the NRB's directives. Whereas, it increased its provision in the year 2065/66 i.e, $51.41 \%$. while it exactly meet the provision in the year 2066/67.Bank provisioned $94.55 \%, 88.46 \%, 88.15 \%, 90.72 \%$ and $98.97 \%$ respectively in the year 2062/63 to 2066/67 for the bad loan which was highly lower than that of requirement. The loan loss provision for bad loan was too much lower in the year 2063/64 and 2064/65 than NRB's directives. It was found that the bank unable to maintain loan loss provision for bad loan as per the NRB's directives.

Loan loss provision for pass loan, sub standard loan and doubtful loan as per NRB's directives, is 1 percent of pass loan, $25 \%$ of sub standard loan, $50 \%$ of doubtful loan and $100 \%$ of bad loan respectively. It is found that the bank could not maintained loan loss provision, perfectly in accordance to the NRB's directives. The bank maintained higher than requirement for one class loan when lower for another class. Therefore, the bank should give priority to maintain loan loss provision as requirement as per NRB's directives.

### 4.2.3. Data Presentation and Analysis of " HIMALAYAN BANK LIMITED":

Table 4.2.3 (1)
Relation between NPA, Net profit, Total lending and Total deposit

| Ratio / year | $2062 / 63$ | $2063 / 64$ | $2064 / 65$ | $2065 / 66$ | $2066 / 67$ | Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NPA to Total Lending | 6.6 | 3.61 | 2.36 | 2.16 | 3.52 | 3.65 |
| Total Lending to Total | 55.27 | 56.57 | 61.23 | 71.49 | 74.39 | 63.79 |
| Deposit |  |  |  |  |  |  |
| Net Profit to Total | 1.55 | 1.47 | 1.76 | 1.91 | 1.19 | 1.576 |
| Assets |  |  |  |  |  |  |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67

Fig 4.2.3 (1)


From Table 4.2.3 (1), it can be said that the ratio between the Non performing assets and Total lending is found to decreasing trend. From the fiscal year 2062/63to the year 2065/66 the ratio decreased from 6.60 to 2.16 i.e. 6.60 s $3.61,2.36$ and 2.16 respectively. While in the fiscal year 2066/67 the ratio decreased to 3.52.The average ratio between NPA to total lending is 3.65 .

Similarly, the total lending to total deposit is in increasing trend. From the fiscal year $2062 / 63$ to $2066 / 67$, the ratios are $55.27 \%, 56.57 \%, 61.23 \% 71.49 \%$ and $7439 \%$ respectively. The average ratio between total lending to total deposit is $63.79 \%$. The net profit to total asset ratio for the year 2062/63 is 1.55 which later decreased to 1.47 in the year 2063/64. It further increased in fiscal year 2064/65 and 2065/66 i.e. 1.6 and 1.91 respectively. But in the year 2066/67 it again decreased to 1.19. The average ratio between net profit to total asset is 1.57 .

Table 4.2.3 (2)
Relation between Net Profit and Total NPA

| Fiscal year | Net Profit | Total NPA |
| :---: | :---: | :---: |
| 2062/63 | 457457696 | 1040757823 |
| 2063/64 | $4918 \overline{2} \overline{2} 905$ | $641615 \overline{3} \overline{6}^{-7}$ |
| 2064/65 | 635868519 | $47 \overline{7} 229223^{-1}$ |
| 2065/6\% | $75283 \overline{4} 7 \overline{35}$ | $55130963{ }^{-1}$ |
| 2066/67 | 508798193 | 1024831962 |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67

In Table 4.2.3. (2), shows that the status of non-performing assets (NPA) and net profit of the bank in different years. In fiscal year 2062/63, the bank had NPA amount to 1040757823 and net profit amount to 457457696 . In the fiscal year2063/64, the NPA decreased to 641615306 i.e. decreased by 399142517 i.e. $38.35 \%$ whereas net profit increased to 491822905 i.e. increased by 34385209 i.e. $7.51 \%$. In the fiscal year 2064/65 the NPA decreased to 477229223 i.e. decreased by 164386083 i.e. $25.62 \%$. While net profit again increased to 635868519 i.e. increased by 144045614 i.e. $29.28 \%$. Here the net profit is in increasing trend, in the year 2065/66, the net profit
increased to 75283435 i.e. 11696621 i.e. $18.39 \%$. Here, NPA increased to 551309634 i.e. increased by 74080411 i.e. $15.52 \%$. In the year 2066/67 the NPA increased by 473622328 i.e. $85.89 \%$. due to increased in NPA net profit decreased to 508798193 i.e. 244036542 i.e. $32.41 \%$.

Fig 4.2.3 (2)


## Loan loss provisioning of Himalayan Bank Ltd:

The loan loss provision maintains by Himalayan Bank Ltd. is presented in the Table
4.2.3.(3).

## Loan loss provisioning of Himalayan Bank Ltd:

Table 4.2.3 (3)

| Types of loan | Requirement as | Loan loss provision by the bank |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | per directives | 2062/63 | 2063/64 | 20665 | 2065/66 | 2066/67 |
| Pass loan | 1\% of pass loan | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Sub-standard loan | $25 \%$ of substandard loan | 57.78 | 25.45 | 25.00 | 44.18 | 38.13 |
| Doubtful loan | $50 \%$ of doubtful loan | 68.16 | 50.00 | 50.00 | 50.86 | 50.00 |
| Bad loan | $100 \%$ of loss loan | 100.26 | 99.47 | 99.95 | 99.52 | 98.97 |

[^0]Commercial bank has to maintain loan loss provision as per NRB's directives. The loan loss provision for pass loan as per NRB's directives is $1 \%$ of pass loan. Here, the bank provision for pass loan from the fiscal year 2062/63 to 2066/67exactly meets the NRB's directives i.e. $1 \%$ of pass loan.

The bank provision for substandard loan is higher than the NRB's directives. From the fiscal year 2062/63 to $2063 / 64$ and $2065 / 66$ to2066/67 the provision is $57.78 \%$, $25.45 \%$, $44.18 \%$, and $38.13 \%$ respectively. But in the fiscal year 2064/65, the loan loss provision for substandard loan exactly meets the NRB's directives i.e., $25 \%$ of substandard loan.

Loan loss provision for doubtful loan as per directives is $50 \%$ of doubtful loan, but the bank is able to meet exactly the requirement only in the fiscal year 2063/64, 2064/65 and 2066/67 while in the year 2062/63 and 2065/66 the provision exceeds the requirement i.e. $68.16 \%$ and $50.86 \%$.

Loan loss provision for bad loan is $100 \%$ of bad loan as per NRB's directives, the bank has almost meet the requirement. In the year 2062/63, the provision is $100.26 \%$ and the year 2063/64,2064/65, 2065/66 and 2066/67 the provision is $99.47 \%, 99.95 \%$, 99.48\% and $99.86 \%$ respectively.

### 4.2.4. Data Presentation and Analysis of " NEPAL INVESTMENT BANK LIMITED":

Table 4.2.4 (1)

## Relation between NPA, Net profit, Total lending and Total deposit

| Ratio / year | 2062/63 | 2063/64 | 2064/65 | 2065/66 | 2066/67 | Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NPA to Total Lending | 2.07 | 2.37 | 1.12 | 0.58 | 0.62 | 1.35 |
| Total Lending to Total Deposit | 69.63 | 72.56 | 79.91 | 78.86 | 81.74 | 76.54 |
| Net Profit to Total <br> Assets | 1.61 | 1.79 | 1.77 | 1.68 | 2.19 | 1.808 |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67

Fig. 4.2.4 (1)


From Table 4.2.4(1), it can be said that the ratio between the Non performing assets and Total lending is found to decreasing trend. From the fiscal year 2062/63to the year 2065/66 the ratio seems to be in decreasing trend from 2.07 to 0.58 . While in the year 2066/67 the ratio has slightly increased to 0.62 . The average ratio between nonperforming assets to total lending is 1.35 .

Similarly, the total lending to total deposits is in increasing trend. In the year 2062/63 the ratio is $69.63 \%$ which increased to $72.56 \%$ in year 2063/64. In the year 2064/65 it further increased to $79.91 \%$. While in the year 2065/66 the ratio decreased to $78.86 \%$ whereas the ratio again increased to $81.74 \%$ in the year 2066/67. The average ratio between total lending to total deposit for the five year period is $76.54 \%$.

The net profit to total assets is in fluctuating trend. The ratio of the year 2062/63 is 1.61which later increased to1.79 in the year 2063/64 while in the year 2064/65 and 2065/66 the ratio again decreased to 1.77 and 1.68 respectively. Whereas, in the year 2066 it again increased to 2.19 . The average net profit to total assets ratio is 1.608 .

Table 4.2.4 (2)

## Relation between Net Profit and Total NPA

| Fiscal year | Net Profit | Total NPA |
| :---: | :---: | :---: |
| 2062/63 | 350536413 | 272493041 |
| 2063/64 | 501398853 | 421971549 |
| 2064/65 | 696731516 | 309470983 |
| 2065/6-6 | -9006-19072- | - $213907 \overline{7} 97{ }^{-1}$ |
| 2066/67 | 1265949588 | 254034452 |

Source: Annual reports of the concern bank of fiscal year 2062/63 to 2066/67
In Table 4.2.3. (2), shows that the status of non-performing assets (NPA) and net profit of the bank in different years. In fiscal year 2062/63, the bank had NPA amount to 272493041 and net profit amount to 350536413 . In the fiscal year 2063/64 NPA amount to 421971549 i.e. NPA increased by149478508 i.e. $54.85 \%$ in comparison to previous year. As the result, the net profit increased by 150862440 i.e. $43.03 \%$. In the year $2064 / 65$,the NPA decreased by 112500566 i.e. $26.66 \%$ in comparison to previous year. As the result net profit increased to 696731516 i.e it increased by

195332663 i.e. $38.95 \%$. In the year 2065/66, the NPA decreased to21390734 i.e. it decreased by 95563589 i.e. $30.87 \%$ in comparison to previous year. As the result, the net profit increased to 900619072 i.e. it increased by 203887556 i.e. $29.26 \%$. Similarly, in the year 2066/67 the NPA increased to 254034452 i.e. it increased by 40127058 i.e. $18.75 \%$ whereas the net profit increased to 1265949588 i.e. it increased by 365330516 i.e. $40.56 \%$ as compared to previous year 2065/66.

Fig. 4.2.4 (2)


Loan loss provisioning of Nepal Investment Bank Ltd:
The loan loss provision maintains by Nepal Investment Bank Ltd. is presented in the Table 4.2.4.(3).

## Loan loss provisioning of Nepal Investment Bank Ltd:

Table 4.2.4 (3)

| Types of loan | Requirement as per directives | Loan loss provision by the bank |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $2062 / 63{ }^{2} \mathbf{2 0 6 3 / 6 4}$ |  |  |  |  |
| Pass loan | $1 \%$ of pass loan | 1.00 | 1.00 | 1.00 | 1.04 | 1.03 |
| Sub-standard <br> loan | $25 \%$ of substandard loan | 25.00 | 25.36 | 25.00 | 25.00 | 25.00 |
| Doubtful loan | $50 \%$ of doubtful loan | 50.00 | 50.06 | 50.19 | 50.00 | 50.00 |
| Bad loan | $100 \%$ of loss loan | 99.00 | 99.07 | 100.00 | 100.00 | 100.00 |

Source: Annex 1(D)

Commercial bank has to maintain loan loss provision as per NRB's directives. In the fiscal year 2062/63 to 2064/ 65 the bank seems to following the directives of pass loan loss provision. Here, the loan loss provision set by the bank exactly meets the NRB's directives i.e. $1 \%$ whereas in the year 2065/66 and 2066/67,the provision has slightly increased i.e. $1.04 \%$ and $1.03 \%$ respectively.

Loan loss provision for substandard loan set by the bank exactly meet the NRB's directives i.e. $25 \%$ of substandard loan for the fiscal year 2062/63. But for the year 2063/64 the loan loss provision is $25.36 \%$ while for other fiscal year it exactly meet the NRB's directives.

Loan loss provision for doubtful loan of the bank exactly meet the NRB's directives in the year 2062/63, 2065/66 and 2066/67 i.e. $50 \%$ of doubtful loan whereas in the year 2063/64 and2064/65 it slightly exceeds the directives i.e. $50.06 \%$ and $50.19 \%$ respectively.

Provision for bad loan for the fiscal year 2062/63 and2063/64is slightly lower than the NRB's directives ie.99\% and $99.07 \%$ respectively. As per NRB's directives the provision for bad loan is $100 \%$ of bad loan. Whereas the bank is able to maintain the loan loss provision perfectly in the fiscal year 2064/65 to2066/67 in accordance to the NRB's directives i.e. $100 \%$ of bad loan.

### 4.3 Performing and Non performing assets of commercial banks in Total Assets, Total Lending and Total Deposit

Table 4.3

## Performing and Non- Performing assets of commercial banks in

Total Assets, Total Lending \& Total Deposit

| Bank | Assets | Lending | Deposit |
| :---: | :---: | :---: | :---: |
|  | $\%$ of PA \% of NPA <br> to TA to TA | $\begin{array}{c\|c} \hline \% \text { of PA } & \text { of NPA } \\ \text { to TL } & \text { to TL } \end{array}$ | $\begin{array}{c\|c} \hline \% \text { of } \mathrm{PA} & \text { of NPA } \\ \text { to TD } & \text { to TD } \end{array}$ |
| EBL | $66.13^{----0.44}$ | $99.31{ }^{-----7}$ | $75.30-0.512$ |
| Investment | $66.699^{-----\overline{--~}}$ | 98.64 ------- ${ }^{-1.35}$ | $75.52-2^{----\overline{-1}}{ }^{---}$ |
| Nabil | $60.04^{---0.66}$ | $98.89{ }^{----1.10}$ | $69.44-0.58$ |
| Himalayan | $56.97{ }^{-----5}$ | $96.344^{--7---7.64}$ |  |

Source: Annex 2
From the table 4.3, we can figure out that Nepal Investment Bank has highest percentage of performing assets to total assets i.e. $66.69 \%$ which is followed by Everest Bank 66.13\%, Nabil Bank 60.04\% and Himalayan Bank 59.97\%. the highest level of performing assets to total assets shows the effectiveness of bank to collect its assets while low level of performing assets to total assets shows the ineffectiveness in collecting the loans of the bank.

Everest Bank has highest level of performing assets to total loan followed by Nabil and Investment Bank i.e. $98.89 \%$ and $98.64 \%$ respectively. Himalayan Bank has $96.34 \%$ of performing assets to total loan.

Investment bank has highest level of performing asset to total deposit followed by Everest bank and Nabil bank i.e. $75.30 \%$ and $69.44 \%$ respectively. Himalayan bank has $69.24 \%$ of performing assets to total deposits.

Lower the percentage of nonperforming assets better the performance. So, here, Everest bank has lower nonperforming assets to total assets followed by Nabil bank, Investment bank and Himalayan bank i.e. $0.66 \%, 0.88 \%$ and $2.1 \%$ repectively. Everest bank has lower percentage of nonperforming assets to total loan i.e. $0.68 \%$ followed by Nabil bank, Investment bank and Himalayan bank i.e. 1.1\%, 1.35\%, and $3.64 \%$ respectively. Similarly, Everest bank has lower level of nonperforming assets to total deposit followed Nabil bank, Investment bank and Himalayan bank i.e $0.58 \%, 0.83 \%$ and $2.36 \%$ respectively.

The total assets of Nabil bank is in increasing trend over the period of five year of study. The percentage of performing asset to total assets is fluctuating for the fiscal year 2062/63 to 2063/64. In the fiscal year 2062/63 the ratio is $58.65 \%$ and decreased to $57.69 \%$ in the fiscal year 2063/64 which later increased to $58.16 \%$ in the year $2064 / 65$ further it increased to $63.31 \%$ in the year 2065/66. Whereas it decrease to $62.40 \%$ in the fiscal year 2066/67. The average percentage of performing assets to total assets of five year period is $60.04 \%$.

As the bank performing assets is in increasing trend, it clearly indicates that the bank is able to repay its lending within the stipulated time. The trend of performing assets shows that the bank is able to control and supervise its lending properly.

The total lending is in increasing trend during the five year study period. The percentage of performing assets to total lending is increasing from the fiscal year 2062/63 to 2064/65 i.e. $98.62 \%$ in the year 2062/63, $98.87 \%$ in the year 2063/64 and $99.25 \%$ in the year 2064/65. It slightly decreased to $99.19 \%$ in the year 2065/66 and further decreased to $98.52 \%$ in the year 2066/67. The average percentage of performing assets to total lending of five year period is $98.89 \%$.

Similarly performing asset to total deposit in the fiscal year is $67.69 \%$ which slightly decreased to $67.36 \%$ in the year 2063/64.later in the year 2064/65 and 2065/66 it increased to $67.67 \%$ and $74.36 \%$ respectively. In the year 2066/67, it decreased to $70.12 \%$ he average percentage of performing assets to total deposit of the five year period is $69.44 \%$.

Since the increasing trend of the performing asset to total deposit shows that the bank is able to increase its performing assets through regular control and supervision of its lending which in the later year 2066/67, the decrease trend shows the bank might have failed to evaluate its credit worthiness of borrower and also bank has been unable to collect its lending. The bank might have failed to evaluate the collateral properly that has been taken by the borrower.

The total nonperforming assets of Nabil bank is also is in increasing trend which slightly decreased in the fiscal year 2065/65 but again it increased in the further year. The increasing nonperforming assets shows the poor control, supervision and concentration, the bank failed to recover its lending. Higher level of nonperforming assets indicates the poor financial position and poor asset management of bank. The percentage of NPA to total assets of Nabil Bank ltd is in decreasing trend from the fiscal year $2062 / 63$ to $2064 / 65$. i.e. $0.82 \%, 0.65 \%$ and $0.43 \%$ respectively which
increased to $0.51 \%$ in the year 2065/66 and again further increased to $0.93 \%$ in the year 2066/67. The average percentage of nonperforming assets to total assets for the five year period is $0.66 \%$.

Similarly, the percentage of NPA to total lending is in decreasing trend from the fiscal year 2062/63 to $2064 / 65$ i.e. $1.38 \%, 1.12 \% 0.74 \%$ respectively. It increased to $0.8 \%$ in the year 2065/66 and $1.47 \%$ in the year 2066/67. The average percentage of nonperforming asset to total loan for five year period is $1.10 \%$.

The percentage of nonperforming asset to total deposit is in decreasing trend from the fiscal year $2062 / 63$ to $2064 / 65$ i.e. $0.94 \%, 0.76 \%$ and $0.5 \%$ respectively. It increased to $0.6 \%$ in the year 2065/66 and decreased to $0.1 \%$ in the year 2066/67. The average percentage of nonperforming asset to total deposit is $0.58 \%$. This trend of non performing assets indicates that the bank could not able concentration towards NPA in fiscal year 2060/61. Because of poor control, supervision and concentration, the bank failed to recover its lending (NPA). Higher level of NPA indicates the poor financial position and poor assets management of the bank.

The total assets of Everest bank is in increasing trend over the period of five year of study. The percentage of performing asset to total assets is increasing from fiscal year 2062/63 to $2064 / 65$ i.e. $62.70 \%$ in the year 2062/63, $65.18 \%$ in the year 2063/64 and $68.91 \%$ in the year 2064/65 which slightly decreased to $65.96 \%$ in the year 2065/66 and again increased to $67.93 \%$ in the year 2066/67. The average percentage of performing asset to total asset over the five year period is 66.13\%

As the bank performing assets is in increasing trend, it clearly indicates that the bank is able to repay its lending within the stipulated time.

The total lending is also in the increasing trend during the study period. The percentage of performing asset to total asset is increasing from fiscal year 2062/63 to $2066 / 67$ i.e. $98.73 \%, 99.19 \%, 99.32 \%, 99.51 \%$, and $99.84 \%$ respectively. The average percentage of performing asset to total lending is $99.13 \%$.

Similarly, the total deposit is also in increasing trend over the study period. The percentage of performing asset to total deposit is increasing from the fiscal year 2062/63 to 2064/65 i.e. $72.50 \%$ in the year 2062/63, $76.81 \%$ in the year 2063/64 and $78.03 \%$ in the year 2064/65. It decreased to $73.07 \%$ in the year 2065/66 and again increased to $76.11 \%$ in the year 2066/67. The average percentage of performing asset to total deposit is $75.30 \%$.

Since the increasing trend of the performing asset to total deposit shows that the bank is able to increase its performing assets through regular control and supervision of its lending which in the later year 2065/66, the decrease trend shows the bank might have failed to evaluate its credit worthiness of borrower and also bank has been unable to collect its lending. The bank might have failed to evaluate the collateral properly that has been taken by the borrower.

The total nonperforming asset of Everest bank is fluctuating over the study period. The nonperforming asset to total asset is in decreasing trend from the fiscal year 2062/63 to 2066/67. The percentage of nonperforming asset to total asset decreased from $0.81 \%$ to 0.11 . In the year 2062/63 the percentage of nonperforming asset to total asset is $0.81 \%$, in the year 2063/64,2064/65,2065/66 and 2066/67 the performing asset to total asset is $0.52 \%, 0.46 \%, 0.32 \%$ and $0.11 \%$ respectively. The average percentage of nonperforming asset to total asset is $0.44 \%$.

The non performing asset to total lending is in decreasing trend as well from the year 2062/63 to 2066/67. The percentage of nonperforming asset to total lending is $1.27 \%$, $0.83 \%, \%, 0.48 \%$, and $0.15 \%$ respectively. The average percentage of nonperforming asset to total lending is $0.68 \%$.

The nonperforming asset to total deposit is in decreasing trend. From the year 2062/63 to $2066 / 67$, the percentage of nonperforming asset to total lending is $0.94 \%, 0.62 \%$, $0.53 \%, 0.35 \%$, and $0.12 \%$ respectively. The average percentage of nonperforming asset to total deposit is $0.512 \%$.

The decreasing trend of nonperforming asset shows the effectiveness of bank toward controlling and supervising its lending properly. As well as the evaluating the collateral taken by the bank from the borrower in the right way.

The total asset of Himalayan bank is in increasing trend over the five year period. The percentage of performing asset to total asset is in increasing trend from the fiscal year 2062/63 to 2066/67. In the year 2062/63 the percentage of performing asset to total asset is 49.97\%, in the year 2063/64, 2064/65, 2065/66 and 2066/67 the percentage is $51.17 \%, 54.46 \%, 63.49 \%$ and $65.77 \%$ respectively. The average percentage of performing asset to total asset over the five year period is $56.97 \%$. As the bank performing assets is in increasing trend, it clearly indicates that the bank is able to repay its lending within the stipulated time. The total lending is also in the increasing trend during the study period. The percentage of performing asset to total lending is increasing from fiscal year 2062/63 to $2065 / 66$ i.e. $93.40 \%$ in the fiscal year 2062/63, $96.39 \%$ in the year 2063/64, $97.63 \%$ in the year 2064/65 and $97.83 \%$ in the year 2065/66. It decreased to $96.48 \%$
in the year 2066/67. The average percentage of performing asset to total lending is 96.34\%.

As the bank performing assets to total lending is in increasing trend, it clearly indicates that the bank is able to repay its lending within the stipulated time though it slightly decreased in the final year of the study.

The total deposit over the period is in increasing trend. Similarly the percentage of performing asset to total deposit also increased from $55.57 \%$ to $74.70 \%$ from the fiscal year 2062/63 to 2066/67. In the year 2062/63 the percentage of performing asset to total deposit is $55.57 \%$ which increased to $57.08 \%$ in the year 2063/64. Again in the year 2064/65 it increased to $61.87 \%$ and $71.99 \%$ in the year 2065/66 and further increased to $74.70 \%$ in the year 2066/67. The average percentage of performing asset to total deposit is $64.24 \%$.

The nonperforming asset is in decreasing trend for the three fiscal year later it increased in following fiscal year.

The nonperforming asset to total asset is decreasing from the fiscal year 2062/63 to 2064/65i.e. $3.53 \%$ in the year 2062/63, $1.91 \%$ in the year 2063/64 and $1.32 \%$ in the year 2064/65. It increased to $1.40 \%$ in the year 2065/66 and further increased to $2.34 \%$ in the year 2066/67. The average percentage of nonperforming asset to total asset is $2.10 \%$.

The nonperforming asset to total lending is decreasing from the fiscal year 2062/63 to 2065/66 i.e. $6.6 \%$ in the year 2062/63, 3.60\% in the year 2063/64, 2.36\% in the year 2064/65 and $2.16 \%$ in the year 2065/66. It increased to $3.51 \%$ in the year 2066/67. The average percentage of nonperforming asset to total lending is $3.646 \%$ The nonperforming asset to total deposit is decreasing from the fiscal year 2062/63 to 2064/65 i.e. $3.93 \%$ in the year 2062/63, 2.13\% in the year 2063/64 and $1.45 \%$ in the
year 2064/65. It increased to $1.58 \%$ in the year $2065 / 66$ and $2.72 \%$ in the year 2066/67. The average percentage of nonperforming asset to total deposit is $2.36 \%$. Though the bank seems to control its nonperforming asset in first three fiscal year of study but in the latter year it could not control it which lead to escalation in nonperforming asset.

The total asset of Nepal Investment Bank is in increasing trend over the five year study period. Here, the performing asset is also in trend which shows the effectiveness in collecting the loan. The percentage of performing asset to total asset is increasing from the fiscal year 2062/63 to 2064/65,i.e $60.50 \%, 62.87 \%$ and $70.02 \%$ respectively. It slightly decreased to $69.06 \%$ in the year 2065/66and again increased to $71.01 \%$ in the year 2066/67. The average percentage of performing asset to total asset for five year period is $66.69 \%$.

The percentage of performing asset to total loan is $97.63 \%$ in the fiscal year 2062/63 and decreased to $97.62 \%$ in the year 2063/64 and further increased to $98.87 \%$ in the year 2064/65 and $99.42 \%$ in the year 2065/66 which again decreased to $99.38 \%$ in the year 2066/67. The average percentage of performing asset to total loan is $98.64 \%$.

The percentage of performing asset to total deposit is increasing from the fiscal year $2062 / 63$ to $2064 / 65$ i.e. $68.18 \%$ in 2062/63 $70.83 \%$ in the year 2063/64 and $9 \%$ in the year 2064/65. It decreased to $78.40 \%$ in the year 2065/66. Later, it increased to $81.23 \%$ in the year 2066/67. The average percentage of performing asset to total deposit is $75.52 \%$.

The nonperforming asset is fluctuating over the study period, which result in the same way in percentage of nonperforming asset to total asset. The percentage of nonperforming asset to total asset in the fiscal year 2062/63 is $1.27 \%$ which increased
to $1.53 \%$ in the year 2063/64 again decreased to $0.80 \%$ in the year 2064/65 and $0.40 \%$ in the year 2065/66. It slightly increased to $0.44 \%$ in the year 2066/67. The average percentage of nonperforming asset to total asset is $0.88 \%$.

The percentage of nonperforming asset to total lending is $2.06 \%$ in the year 2062/63and increased to $2.37 \%$ in the year 2063/64 and decreased to $1.12 \%$ in the year 2064/65 and further decreased to $0.58 \%$ in the year 2065/66. In the year 2066/67 it increased to $0.62 \%$. The average percentage of nonperforming asset to total lending is $1.35 \%$.

The percentage of nonperforming asset to total deposit is $1.43 \%$ in the year 2062/63 and $1.72 \%$ in the year 2063/64. It decreased to $0.89 \%$ in the year 2064/65and further decreased to $0.45 \%$ in the year 2065/66. It reached to $0.50 \%$ in the year 2066/67. The average percentage of nonperforming asset to total deposit is $0.998 \%$.

### 4.4 Percentage of Performing Asset and Non performing Assets of Commercial bank in Total Loan.

Table 4.4

## Percentage of Performing Asset and Non performing Assets of Commercial bank in Total Loan.

| Banks | Performing_Asset |  | Non Performing Asset |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PL/TL | RL/TL | SL/TL | DL/TL | BL/TL |
| Nabil Bank | 98.64 | 0.27 | 0.42 | 9.15 | 0.53 |
| Everest Bank | 98.22 | 1.11 | 0.038 | 0.03 | 0.53 |
| Himalayan Bank | 94.29 | 2.06 | 0.484 | 0.026 | 2.14 |
| Nepal Inv. Bank | 98.48 | 0.17 | 0.29 | 0.01 | 0.98 |

Source: Annex 3
From the table 4.4 It can be figured out that the Pass loan to Total loan of Nabil bank is highest i.e. $98.64 \%$ which is followed by Nepal Investment bank and Himalayan bank i.e. $98.48 \%$ and $98.29 \%$ respectively. The lowest percentage of pass loan to total
loan is Everest bank i.e. $98.22 \%$. Himalayan bank highest percentage of restructured loan to total loan i.e. $2.06 \%$ followed by Everest bank $1.11 \%$, Nabil bank $0.27 \%$ and Nepal Investment bank i.e.0.17\%.

Higher the percentage of performing loan better the performance of the bank and vice versa. Here, percentage of Substandard loan to total loan of Everest bank is lowest i.e. $0.038 \%$.The Nepal Investment bank is $0.29 \%, 0.42 \%$ of Nabil bank and $0.438 \%$ of Himalayan bank.

Nepal Investment bank has lowest Doubtful loan to Total loan i.e. $0.01 \%$, Himalayan bank and Everest bank has $0.026 \%$ and $0.03 \%$ respectively whereas Nabil bank has $0.15 \%$.

The percentage of Bad loan to total loan for Nabil bank is lowest $0.53 \%$ followed Everest bank i.e. $0.60 \%$ Nepal Investment bank $0.98 \%$ and Himalayan bank has the highest percentage of bad loan to total loan i.e. $2.14 \%$.

The total loan of Nabil bank is in increasing trend over the study period i.e. from the fiscal year 2062/63 to 2066/67.

The percentage of pass loan to total loan of Nabil bank is $97.98 \%$ in the fiscal year 2062/63 and increased to $98.33 \%$ in the year 2063/64 and further increased to $99.21 \%$ in the year 2064/65. In the year 2065/66 and 2066/67 it decreased to $99.17 \%$ and $\mathbf{9 8 . 5 3 \%}$ respectively. The average percentage of pass loan to total loan is $98.64 \%$.

The percentage of restructured loan to total loan of Nabil bank is $0.65 \%$ in the year 2062/63, it decreased to $0.54 \%$ in the year 2063/64 and 0.04 in 2064/65. Again it further decreased to 0.02 in the 0.02 in the year 2066/67. The average percentage of restructured loan to total loan is $0.27 \%$.

The percentage of substandard loan to total loan is $0.47 \%$ in the year 2062/63 and increased to $0.76 \%$ in year063/64. In the year 2064/65 it decreased to $0.3 \%$ in the year 2065/66 it again increased to $0.40 \%$ which later decreased to $0.18 \%$ in the year 2066/67. The average percentage of substandard loan to total loan is $0.422 \%$.

The percentage of doubtful loan to total loan is $0.22 \%$ in the year $2062 / 63$ and decreased to $0.09 \%$ in year063/64. In the year 2064/65 it increased to $0.2 \%$ which again decreased to $0.17 \%$ in the year 2065/66 and later decreased to $0.07 \%$ in the year 2066/67. The average percentage of doubtful loan to total loan is $0.15 \%$.

The percentage of bad loan to total loan is in decreasing trend from fiscal year 2062/63 to 2065/66. The percentage of bad loan to total loan decreased from $0.68 \%$ to $0.24 \%$, while it increased in the year 2066/67. The average percentage of bad loan to total loan is $0.53 \%$.

The total loan of Everest bank is in increasing trend over the study period i.e. from the fiscal year 2062/63 to 2066/67.

The percentage of pass loan to total loan of Everest bank is $96.26 \%$ in the fiscal year 2062/63 and increased to $97.65 \%$ in the year 2063/64 and further increased to $98.50 \%$ in the year 2064/65. In the year 2065/66 and 2066/67 it again increased to $99.10 \%$ and $99.60 \%$ respectively. The average percentage of pass loan to total loan is $98.22 \%$.

The percentage of restructured loan to total loan of Everest bank is $2.46 \%$ in the year $2062 / 63$, it decreased to $0.30 \%$ in the year 2066/67. The average percentage of restructured loan to total loan is $1.11 \%$.

The percentage of substandard loan to total loan is $0.11 \%$ in the year 2062/63 and decreased to $0.03 \%$ in year 2063/64. In the year 2064/65 it increased to $0.04 \%$. Which
later decreased to $0.01 \%$ in the year 2066/67. The average percentage of substandard loan to total loan is $0.038 \%$.

The percentage of doubtful loan to total loan is $0.01 \%$ in the year 2062/63 and increased to $0.02 \%$ in year063/64. In the year 2064/65 it decreased to $0.00 \%$ which again increased to $0.12 \%$ in the year 2065/66 and while it is nil in the year 2066/67. The average percentage of doubtful loan to total loan is $0.03 \%$.

The percentage of bad loan to total loan is in decreasing trend from fiscal year 2062/63 to 2065/66. The percentage of bad loan to total loan decreased from $1.16 \%$ to $0.10 \%$. The average percentage of bad loan to total loan is $0.60 \%$.

The total loan of Himalayan bank is in increasing trend over the study period i.e. from the fiscal year 2062/63 to 2066/67.

The percentage of pass loan to total loan of Himalayan bank is in increasing trend from the fiscal year 2062/63 to 2065/66 i.e. $89.17 \%$ in the fiscal year 2062/63 to $96.66 \%$ in the year 2065/66 which further decreased to $95.85 \%$ in the year 2066/67. The average percentage of pass loan to total loan is $94.29 \%$.

The percentage of restructured loan to total loan of Everest bank is in decreasing trend from the fiscal year 2062/63 to 2066/67 i.e. $4.23 \%$ to $0.63 \%$. The average percentage of restructured loan to total loan is $2.06 \%$.

The percentage of substandard loan to total loan is $0.68 \%$ in the year 2062/63 and decreased to $0.4 \%$ in year 2063/64 and further decreased to $0.26 \%$ in the year 2064/65. It increased to $0.66 \%$ in the year 2065/66. which later decreased to $0.42 \%$ in the year 2066/67. The average percentage of substandard loan to total loan is $0.484 \%$.

The percentage of doubtful loan to total loan is in decreasing trend. The percentage decreased from $1.45 \%$ to $0.75 \%$ in the year 2062/63 to the year 2066/67. The average percentage of doubtful loan to total loan is $1.026 \%$.

The percentage of bad loan to total loan decreased from $4.47 \%$ to $0.74 \%$ from the fiscal year 2062/63 to 2065/66, it increased to $2.35 \%$ in the year 2066/67. The average percentage of bad loan to total loan is $2.14 \%$.

The total loan of Nepal Investment bank is in increasing trend over the study period i.e. from the fiscal year 2062/63 to 2066/67.

The percentage of pass loan to total loan of Nepal Investment bank is in increasing trend. The percentage of pass loan to total loan in the fiscal year 2062/63is 97.65\% which further increased to $99.33 \%$ in the year 2066/67. The average percentage of pass loan to total loan is $98.48 \%$.

The percentage of restructured loan to total loan of Nepal Investment bank is in decreasing trend. The percentage of restructured loan to total loan in the fiscal year 2062/63is $0.28 \%$, which decreased to $0.06 \%$ in the year 2066/67. The average percentage of restructured loan to total loan is $0.17 \%$.

The percentage of substandard loan to total loan is $0.34 \%$ in the year 2062/63 and increased to $0.65 \%$ in year 2063/64. In the year 2064/65 it again decreased to $0.32 \%$. This further decreased to $0.03 \%$ in the year 2065/66. It reached to $0.14 \%$ in the year 2066/67.The average percentage of substandard loan to total loan is $0.29 \%$.

The percentage of doubtful loan to total loan is nil in the year 2062/63 and increased to $0.05 \%$ in year063/64. While it is nil in the following year till the year 2066/67. The average percentage of doubtful loan to total loan is $0.01 \%$.

The percentage of bad loan to total loan is in decreasing trend from fiscal year 2062/63 to 2066/67. The percentage of bad loan to total loan decreased from $1.73 \%$ to $0.46 \%$. The average percentage of bad loan to total loan is $0.98 \%$.

### 4.5 Correlation Analysis

Correlation analysis is the statistical tool that can be used to describe the degree to which one variable is linearly related to another variable. Two or more variable are said to be correlated if change in one value of one variable appears to related to linked with the change in the value of other variable. Correlation is an analysis of the covariance between two or more variables and correlation analysis deals to determine the degree to the closeness of the relationship between the different variables. In the correlation analysis, only one variable is treated as the dependent variable and one or more variables are treated as independent.

Correlation analysis generally used to describe the degree to which on variable is related to another, in statistics is used in order to depict the covariance between two or more variables. It helps to determine whether

- A positive or negative relation exists.
- The relation is significant or insignificant.
- Establishes cause and effect relation if any.


### 4.5.1 Correlation between NPA and ROA of the commercial bank

The statistical tool "correlation analysis" is preferred in this study to identify the relationship between NPA and ROA and whether the relationship is significant or not. Here, NPA denotes the percentage of NPA in total lending of the bank and ROA denotes the net profit as percentage of total assets of the bank.

Table 4.5.1
Correlation between NPA and ROA of the commercial bank.


Source: Annex 4
Table 4.5.1 shows the correlation coefficient between non performing asset to return on asset. There is negative relationship between these two variables the established theory also states that the profit and nonperforming asset flow in the opposite direction. When the amount of NPA lessens, the profit increases and whenever the amount of NPA increases, then the profit decreases.

Here, the Everest bank has the highest correlation coefficient of which is categorized as having high degree of negative correlation and 0.739 of the profitability is affected by the NPA to the bank and 0.261 is affected by the other factor. The test so made for the bank is found to be insignificant as the correlation is not greater than probable error (PE) multiplied by six times. Here the PE is 0.253 .

Himalayan bank and the Nepal Investment bank has moderate correlation coefficient of -0.658 and -0.445 . here, 0.43 and 0.19 of the profitability is affected by the NPA of the respective bank while rest 0.57 and 0.81 is affected by the other factor. Only 0.43 and 0.19 of the relationship is affected by the NPA in the increment of the profitability of the bank. Further the value of PE is 0.17 and 0.24 respectively of Himalayan bank and Nepal Investment Bank indicates the insignificant relationship between them.

Only, Nabil bank have the positive correlation coefficient i.e. higher the level of NPA higher the return and vice versa. Only 0.16 of the profit is affected by NPA and the rest 0.84 of the profit is affected by other factor. Here, the PE is 0.253 indicating the insignificant relationship between them.

From the above calculation, it can be concluded that the profitability of the individual bank is fully dependent in the non performing asset of the respective bank. Higher the NPA lower will be the net profit and vice versa.

Table 4.5.2
Correlation between NPA and ROA of the commercial bank.

| Bank | Coefficient <br> of correlation | Relationship | Coefficient of determination | Probable error (P.E) | $\begin{aligned} & 6 \mathrm{X} \\ & \text { P.E. } \end{aligned}$ | Significant <br> /insignificant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nabail | 0.78 | +ve | 0.6084 | 0.178 | 0.078 | Significant |
| Himalayan | 0.067 | +ve | $0.00 \overline{4}$ | 0.300 | 1.800 | Insignificant |
| Everest | -0.715 | -ve | 0.5112 | 0.147 | 0.882 | Insignificant |
| Nepal Inv. | $-0.588$ | -ve | $0.3 \overline{4} 5$ | 0.190 | 0.600 | Insignificant |

Source: Annex 4
The statistical tool, "correlation analysis" is preferred in this study to identify the relationship between NPA and total lending and whether the relationship is significant or not.

Here the table 4.5.2 the correlation coefficient between the total lending and NPA shows that if the relationship between these two variables is positive the amount of total lending increases and the amount of NPA also increases and vice versa. Whereas when the correlation coefficient between the total lending and NPA is negative then the amount of total lending increases, which results in decrement in NPA and vice versa.

Here, the Nabil bank has the correlation coefficient of 0.78 and is categorized as high degree of positive correlation. $60.84 \%$ of he total lending is affected by NPA and rest is affected by other factor. And the test so made for the bank is found to be significant as the correlation coefficient is greater than probable error(P.E) multiplied by six times. Here, the value of PE is 0.118 . Himalayan bank has the correlation coefficient of 0.017 having positive degree of correlation. Only $0.4 \%$ of the relationship is
affected by the NPA in the increment of the total lending of the bank. As the coefficient of the determination of the bank is found to be $0.4 \%$, rest is affected by other factor. Furthermore, the value of PE is 0.3 indicating a significant relationship between them.

Everest bank and Nepal Investment bank have the correlation coefficient of -0.715 and -0.588 which is categorized as having moderate degree of negative correlation. And $51.12 \%$ and $34.5 \%$ of total lending is affected by the NPA to the respective bank and rest is affected by the other factor. The PE value is 0.1474 and 0.19 .

### 4.6 Major Findings

This study is concerned to find out the level of nonperforming assets and its effects on the return on assets and other factors of the Nepalese commercial banks. This study especially focuses on four commercial banks of Nepal viz, Nabil, Himalayan, Everest and Nepal Investment bank out of 20 commercial banks operating in the banking industry of Nepal.

In case of Nabil bank, total net profit is in increasing trend while the NPA is found to be increasing but it decreased in the final year of the study i.e. 2066/67. NPA to total lending is found to be decreasing while it increased in the final year of the study i.e. 2066/67. Total lending to total deposit is fluctuating, but in the year 2065/66 it has the highest ratio i.e. $73.87 \%$. Net profit to total asset is in decreasing trend. In the year 2062/63, it is 3.23 , which decreased to 2.37 in the final year study i.e. 2066/67.

Here, in the Himalayan bank, total NPA is in decreasing trend while it increased in the final year i.e. 1040757823 in the year 2062/63 it is 1024831962 . Though the net profit is in increasing trend till the year 2065/66, it slightly decreased in the year

2066/67 i.e. 508798193 . NPA to total lending is in decreasing trend till the in decreasing trend till the ear 2065/66 but it increased in 2066/67 i.e. $3.52 \%$. total lending to total deposit is in increasing trend. Net profit to total asset is in increasing trend while it decreased in the final year of study i.e. $1.19 \%$.

Here, in the case of Everest bank, total NPA is in decreasing trend and the net profit is in increasing trend.NPA to total lending is in decreasing trend as it is 1.27 in the year 2062/63 and 0.16 in the year 2066/67. While total lending to total deposit is in increasing trend i.e. $73.4 \%$ in the year 2062/63 and $76.24 \%$ in the year 2066/67.. Net profit to total asset is in increasing trend as it is 1.5 in the year 2062/63 and 2.09 in the final year of the study i.e. 2066/67.

Here, in the Nepal Investment bank, total NPA is fluctuating, it is 27249304 in the fiscal year 2062/63 which increased to 421971549 in the year 2063/64 and again decreased to 213907314 in the year 2065/66 and again increased to 254034452 in the year 2066/67. Whereas the net profit is in increasing trend. NPA to total lending is in decreasing trend while it slightly increased in the year 2063/64.Total lending to total deposit is in increasing trend as it is $69.63 \%$ in the year $2062 / 63$ and $81.74 \%$ in the year 2066/67.Net profit to total asset is in increasing trend over the year as it was 1.61 in the year 2062/63 and increased to 2.19 in the year 2066/67.

The percentage of performing asset to total asset of Nepal Investment bank is found to be highest which is $66.69 \%$ and Himalayan bank is found to be lowest i.e. $56.97 \%$. among the sample bank, the percentage of nonperforming asset to total asset of Everest bank is found to be lowest i.e. $0.44 \%$ and Himalayan bank is found to be highest i.e. $2.1 \%$.

The percentage of performing asset to total loan of Everest bank is found to be highest which is $99.31 \%$ and Himalayan bank is found to be lowest i.e. $96.34 \%$.The
percentage of nonperforming asset to total loan of Everest bank is found to be lowest i.e. $0.68 \%$ and Himalayan bank is found to be highest i.e. $3.64 \%$.

The percentage of performing asset to total deposit of Nepal Investment bank is found to be highest which is $75.52 \%$ and Himalayan bank is found to be lowest i.e. $64.24 \%$. among the sample bank. The percentage of nonperforming asset to total deposit of Everest bank is found to be lowest i.e. $0.572 \%$ and Himalayan bank is found to be highest i.e. 2.36\%.

The level of NPA is found to be highest for the Nabil bank in the fiscal year 2064/65, which was Rs 37132759149 where as the lowest, was found to be Nepal Investment bank in the fiscal year 2062/63 which was Rs 27249304. In overall, the performance of the Everest bank and Nepal Investment bank are found to be satisfactory as the level of NPA is gradually decreasing and net profit is gradually increasing over the years covered by this study period. Followed by Nabil bank as it has increasing net profit and NPA. But in case of Himalayan bank the NPA is increasing and the net profit is fluctuating which was worse.

Everest Bank and Nepal Investment bank are able to decrease the level of NPA during the study period as a result they can able to increased to net profit of the banks. In case of Nabil Bank limited is able to increase net profit of the bank although they cannot control the level of nonperforming assets. But in case of Himalayan bank the NPA is increasing and the net profit is fluctuating. The level of nonperforming assets plays vital role in increment and decrement of profit of the commercial banks.

The average ratio of pass loan to total loan of five years have been found higher in Nabil bank and lower in the Himalayan bank which is $98.64 \%$ and $94.24 \%$
respectively. The average ratio of restructured loan to total loan of five year among the sample bank is found to be highest in the Himalayan bank i.e. 2.06 and lowest in Nepal investment bank i.e. 0.17.

The average ratio of substandard loan to total loan of five years have been found highest in Himalayan bank and lowest in the Everest bank which is $0.484 \%$ and $0.038 \%$ respectively. whereas the average ratio of doubtful loan to total loan of five year among the sample bank is found to be highest in the Himalayan bank i.e. 1.026 and lowest in Nepal investment bank i.e. 0.01. The average ratio of bad loan to total loan of five years have been found highest in Himalayan bank and lowest in the Nabil bank which is 2.14 and $0.53 \%$ respectively.

The correlation coefficient between ROA and NPA is found to negative for all the sample banks except Nabil bank under the study. Among them Everest bank have the high degree of negative correlation i.e. -0.86 , the negative correlation means the ROA is indirectly dependent on the level of NPA, higher the level of NPA, lower the return on asset and the vice versa. Himalayan and Nepal Investment bank have the negative correlation of -0.658 and -0.4457 respectively. Since, the Nabil bank have the positive correlation coefficient, the ROA is directly dependent on the level of NPA, where only $16 \%$ of return is affected by the level of NPA and rest is affected by other factor. All the sample banks are found to be significant as the correlation coefficient is greater than probable error (P.E) multiplied by six times. The correlation coefficient between total lending and total NPA is found to positive for two of the sample banks i.e. Nabil bank and Himalayan bank i.e. 0.78 and 0.067 respectively, while Everest bank and Nepal Investment bank have the negative correlation i.e. -0.715 and -0.588 respectively. The negative correlation means the total lending is indirectly dependent on the level of NPA, higher the level of NPA,
lower the total lending and the vice versa. Everest and Nepal Investment bank have the negative correlation. Since, the Nabil bank and Himalayan bank have the positive correlation coefficient, the total lending is directly dependent on the level of NPA. Only Nabil bank is found to be significant as the correlation coefficient is greater than probable error (P.E) multiplied by six times, while rest of the three bank is found to be insignificant.

## CHAPTER V <br> SUMMARY CONCLUSION AND RECOMMENDATION

### 5.1 SUMMARY

A commercial bank means the bank, which deals with exchanging currency, accepting deposits, giving loans doing other various commercial transactions. Therefore, the major function of commercial bank is to accept deposits and provide loans.

There is not so long history of commercial bank in Nepal. Nepal Bank Limited established in 1994 B.S. was the first commercial bank of the Nepal. But now there are eighteen commercial banks all over the country and they have been expanding their services by establishing branches in every corner of the country.

The assets of commercial bank indicate the manner in which the funds entrusted to the bank are employed. The successful working of the bank depends on ability of the management to distribute the fund among the various kind of investment known as assets outstanding loan advance of the bank. These assets constitute primary source of income to the bank. As being a business unit a bank aims at making huge profit since loan and advances are more profitable than any other assets of the bank, it is willing to lend as much as its fund as possible. But the bank has to be careful about the repayment of loan and interest giving loan. If the bank is too timid, it may fail to obtain the adequate return on the fund, which is confined to it for use. Similarly, if the bank is too liberal, it may easily impair its profits by bad debts. Therefore, bank
should not forget the reality that most of the bank failures in the world are due to shrinkage in the value of the loan and advances.

Despites of being loan and advances more profitable than other assets, it creates risk of non repayment for the bank. Such risk is known as credit risk or default risk. Therefore, like other assets, the loan and advances are classified into performing and non performing assets on the basis of overdue aging schedule. If the dues in the form of principal and the interest are not paid, by borrower within a maturity period, that amount of principal and interest is called non performing loan or assets. It means NPA could wreak branch profitability both through loss of interest income and need to write off the principal loan amount. Performing assets have multiple benefits to the company as well as to the society while non performing assets erode even existing capital of the bank.

Escalating level of NPAs has been becoming great problem in banking business in the world. In this context, Nepal can not be run off from this situation. The level of NPA in Nepalese banking system is very alarming. It is well known fact that the bank and financial institution in Nepal have been facing the problem of swelling nonperforming assets and the issue of becoming more and more unmanageable day by day. it is well known from different financial reports, newspapers and news that the total NPA in Nepalese banking system is about 32 Billion while it is very worse in case of two largest commercial banks Rastriya Banijya Bank and Nepal Bangladesh Bank.(Nepal Rastra Bank, Banking and financial statistics, 2008: 09)

Therefore, this study is concerned to find out the level of NPA and its effects on the returns on assets and the other factors of the Nepalese commercial bank. This study especially focuses on four commercial banks of Nepal, viz. Everest, Nepal Investment, Himalayan and Nabil only, out of the 18 commercial banks operating in the banking industry of Nepal.

The level of NPA is found to be highest for the Nabil bank in the fiscal year 2064/65, which was Rs37132759149 where as the lowest, was found to be Nepal Investment bank in the fiscal year 2062/63 which was Rs 27249304. In overall, the performance of the Everest bank and Nepal Investment bank are found to be satisfactory as the level of NPA is gradually decreasing and net profit is gradually increasing over the years covered by this study period. Followed by Nabil bank as it has increasing net profit and NPA. But in case of Himalayan bank the NPA is increasing and the net profit is fluctuating which was worse.

Everest Bank and Nepal Investment bank are able to decrease the level of NPA during the study period as a result they can able to increased to net profit of the banks. In case of Nabil Bank limited is able to increase net profit of the bank although they cannot control the level of nonperforming assets. But in case of Himalayan bank the NPA is increasing and the net profit is fluctuating. The level of nonperforming assets plays vital role in increment and decrement of profit of the commercial banks.

Every commercial Bank should follow the NRB directives. Commercial bank has to maintain loan loss provision as per NRB directives for the commercial bank. According to NRB directives, loan loss provision for pass loan should be $1 \%$ of pass
loan, for substandard loan it should be $25 \%$ of substandard loan, for doubtful loan it should be $50 \%$ of doubtful loan and for bad loan it should be $100 \%$ of bad loan.

Every commercial bank is trying to exactly meet the NRB's directives regarding nonperforming assets. Everest bank is the only bank which can maintain the loan loss provision perfectly as per NRB directives for the commercial bank. But the other sample banks of the study could not maintained loan loss provision perfectly accordance to the NRB directives for all classes. The bank maintained higher the loan loss provision requirement for one class loan when lower in another class loan.

Everest Bank Limited could maintain loan loss provision, perfectly in accordance to NRB directives in comparison to another sample bank of the study. Therefore it can be concluded that the EBL is able to maintain the loan loss provision. The remaining sample banks should give priority to maintain the loan loss provision as requirement as per NRB's directives.

The percentage of performing assets to total assets of the Nepal Investment bank is found to be highest among the sample banks, which is $66.69 \%$ and the HBL have been found to be 56.69 \% which is lowest among the sample banks. Among the sample banks the percentage of nonperforming assets to total assets of the EBL is found lowest which is $0.44 \%$ and it is found to be $2.1 \%$ of the Himalayan bank which is highest.

The percentage of performing assets to total lending is found to be highest in EBL and lowest in Himalayan bank which is $99.31 \%$ and $96.34 \%$ respectively. The
percentage of nonperforming assets to total lending is found lowest in EBL and highest in Himalayan bank which is $0.68 \%$ and 3.64 \% respectively among the sample banks.

The percentage of performing assets to total deposit of Nepal Investment bank found to be $75.52 \%$ which is highest among the sample banks and lowest $64.24 \%$ of the HBL. The percentage of nonperforming assets to total deposit is $0.512 \%$ of EBL and 2.36 \% of Himalayan bank respectively which is lower and higher ratio.

The average ratio of pass loan to total loan of five years have been found highest in Nabil bank and lowest in Himalayan bank which was $98.64 \%$ and $94.29 \%$ respectively. The average ratio of restructured loan to total loan of five years has been found highest in Himalayan bank which is $2.06 \%$.

The average ratio of nonperforming assets to total loan of five years is found lower in Everest Bank Limited. The average ratio of substandard loan to total loan of five years have been found lowest in EBL and highest in Himalayan bank. The average ratio of doubtful loan to total loan of five years have been found lowest in Nepal Investment bank and highest in Himalayan bank i.e. 0.01 and 1.026. The average ratio of bad loan to total loan of five years was found highest in Himalayan bank and lowest in Nabil bank i.e. 2.14 and 0.53 respectively.

### 5.2 CONCLUSION

The profitability of Nepalese commercial bank is affected by non performing assets of bank. When the level of nonperforming assets is increasing then the profit of the bank is decreasing and vice versa. Therefore the NPA and profitability of the bank have negative correlation.

The level of NPA is found to be highest for the Nabil bank in the fiscal year 2064/65, which was Rs37132759149 where as the lowest was found to be Nepal Investment bank in the fiscal year 2062/63 which was Rs 27249304. In overall, the performance of the Everest bank and Nepal Investment bank are found to be satisfactory as the level of NPA is gradually decreasing and net profit is gradually increasing over the years covered by this study period. Followed by Nabil bank as it has increasing net profit and NPA. But in case of Himalayan bank the NPA is increasing and the net profit is fluctuating which was worse.

Every commercial bank is trying to exactly meet the NRB's directives regarding nonperforming assets. In overall, Everest Bank Limited could maintain loan loss provision, perfectly in accordance to NRB directives in comparison to another sample bank of the study. Therefore it can conclude the EBL able to maintain the loan loss provision as per NRB's directives. While the remaining sample banks should give priority to maintain the loan loss provision as per NRB's directives.

### 5.3 RECOMMENDATION

High level of nonperforming assets not only decreases the profitability of the banks but also entire financial as well as operational health of the country. If the NPA is not controlled immediately, it would be proved as a curse for the banks in near future. Therefore, following are some of the recommendations, which will help to reduce the level of NPA of the Nepalese commercial banks:

1. Corporate structure of bank plays key role in the effective loan management. Being loan a risky asset, efforts should be made to have proper control in every steps of loan management. The banks should establish separate department for credit appraisal, documentation, disbursement, inspection and recovery of loan which have possibility of finding mistakes of one department by the others, so that the effectiveness can be achieved.
2. Loan must be given if the banker is satisfied that the borrower can repay money from the cash flow generated from operating activities. However, the banks want to ensure that their loan is repaid even in case of failure of business. To prevent banks from such happenings, the bank take collateral for the recovery of loan. Therefore the bank should take proper valuation of collateral so that the bank at least will be able to recover its principal and interest amount in case of failure of the borrower to repay the loan.
3. Lack of proper financial analysis of the borrower by the banks, is one of the major cause behind increasing NPA of Nepalese commercial banks. Therefore, proper financial analysis should be performed before giving loan to the borrower.
4. Those banks, which have high level of NPA, should take necessary action towards recovering their bad loan as possible. In case of doubtful to repay the loan by the borrower, the bank should dispose off the collateral taken from them and recover the principal and the interest amount there of.
5. Diversification of the loan should be managed by the individual banks. In the context of Nepal it is provided to the borrower so often go to the bank not in the new sector. Default by older borrower can be found, which should be avoided.
6. Control mechanism of the bank should be managed properly. Black listed customers should not be given the new loan, as it would lead to the same situation to the bank.
7. Political influences in the loan disbursement should be avoided as it may lead to worse condition to the bank as it may increase the non performing loan of the bank.
8. Every commercial bank should maintain loan loss provision as per NRB's directives regarding nonperforming assets.

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http://www.everestbankltd.com

## Annex <br> Introduction of commercial Banks

## Everest Bank Limited:

EBI started its operation in 1994 with the view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank joined hands with Punjab National Bank, India as its joint venture partner in 1997.

The bank is providing it services through a wide network of its 18 branches across the nation and over 250 correspondents across the globe. All the major branches of the bank are connected through anywhere branch-banking system, a facility which enables a customer to do banking transactions from any of the bank branch irrespective of their own accounts.

The bank in association with Smart Choice Technology (SCT) is providing ATM services for its customers. EBL Debit Cards can be accessed at more than 50 ATMs and over 250 points of scales across the nation. The bank is also managing a ATM at Tribhuvan International Airport for the convenience of the customers and the travelers, the first and only bank in Nepal to place ATM outlet at the Airport.

## Nabil Bank Limited:

Nabil Bank the first joint venture commercial bank of Nepal was established in 11 May 1984 under the company Act 1964. It started banking work in the same year by joint investment of Dubai Bank Limited and Nepalese promoters. The
authorized share capital of the bank was Rs. 50 Million and paid up capital and issues capital of Rs. 30 Million at the time of establishment.

Share holding pattern of the bank is as follows:

| Dubai Bank Ltd. | $50 \%$ |
| :--- | :--- |
| NIDC | $10 \%$ |
| National Insurance Corporation | $9.68 \%$ |
| Nepal Stock Exchange Ltd. | $0.32 \%$ |
| General Public | $\underline{30 \%}$ |

100\%
Nabil bank provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

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

## Himalayan bank:

HBL is incorporated in 1992 by a few distinguished business personality of Nepal in partnership with the employees of Provident Fund and Habib Bank Ltd. One of the largest bank of Pakistan. Banking operation commenced from January 1993. It is the first commercial bank in Nepal whose maximum share are held Nepalese
private sector. Besides commercial banking services, the bank also offers industrial and merchant banking services. The bank has

X = Net Profit to Total Assets (ROA)
$\mathrm{Y}=$ NPA to Total Lending (NPA)

| Year | X | Y | $\mathrm{X}^{2}$ | $\mathrm{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 3.23 | 1.38 | 10.4329 | 1.9044 | 4.4574 |
| 2063/64 | 2.72 | 1.12 | 7.3984 | 1.2544 | 3.0464 |
| 2064/65 | 2.32 | 0.74 | 5.3824 | 0.5476 | 1.7168 |
| 2065/66 | 2.55 | 0.8 | 6.5025 | 0.64 | 2.04 |
| 2066/67 | 2.37 | 1.47 | 5.6169 | 2.1609 | 3.4839 |
| Sum | $\overline{\mathrm{X}}=13.19$ | $\overline{\mathrm{Y}}=5.51$ | $\Sigma \mathrm{X}^{2}=35.331$ | $\sum \mathrm{Y}^{2}=6.5073$ | LXY=14.7445 |

Karl Pearson's correlation coefficient (r)

$$
\begin{aligned}
& =\frac{\mathrm{N} . \sum \mathrm{XY}-\sum \mathrm{X} \times \sum \mathrm{Y}}{\sqrt{\mathrm{~N} \times \sum \mathrm{X}^{2}-\sum(\mathrm{X})^{2}} \sqrt{\mathrm{~N} \times \sum \mathrm{Y}^{2}-\sum(\mathrm{Y})^{2}}} \\
& =\frac{5 \times 14.7445-13.19 \times 5.52}{\sqrt{5 \times 35.331-(13.19)^{2}} \sqrt{5 \times 6.5073-(5.53)^{2}}} \\
& =\frac{0.9131}{2.281} \\
& =0.399 \\
& =0.4 \\
& \text { Probable Error }(P . E .)=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}} \\
& =\frac{0.6745\left(1-0.4^{2}\right)}{\sqrt{5}} \\
& =\frac{0.5665}{2.2361} \\
& =0.2533 \\
& \text { Coefficient of determination }=r^{2} \\
& =(0.4)^{2} \\
& =0.16
\end{aligned}
$$

## Calculation of Karl Pearson's correlation coefficient between ROA and NPA of Himalayan Bank Limited

X = Net Profit to Total Assets (ROA)
$\mathrm{Y}=$ NPA to Total Lending (NPA)

| Year | X | Y | $\mathbf{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 1.55 | 6.60 | 2.4025 | 43.5600 | 10.2300 |
| 2063/64 | 1.47 | 3.61 | 2.1609 | 13.0321 | 5.3067 |


| 2064/65 | 1.76 | 2.36 | 3.0976 | 5.5696 | 4.1536 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2065/66 | 1.91 | 2.16 | 3.6481 | 4.6656 | 4.1256 |
| 2066/67 | 1.19 | 3.52 | 1.4161 | 12.3904 | 4.1888 |
| Sum | [ $\mathrm{X}=7.88$ | $\sum \mathrm{Y}=18.52$ | $\Sigma \mathrm{X}^{2}=12.7252$ | $\Sigma \mathrm{Y}^{2}=79.2177$ | $\Sigma \mathrm{XY}=28.0000$ |

Karl Pearson's correlation coefficient (r)

$$
\begin{aligned}
& =\frac{\mathrm{N} . \sum \mathrm{XY}-\sum \mathrm{X} \times \sum \mathrm{Y}}{\sqrt{\mathrm{~N} \times \sum \mathrm{X}^{2}-\sum(\mathrm{X})^{2}} \sqrt{\mathrm{~N} \times \sum \mathrm{Y}^{2}-\sum(\mathrm{Y})^{2}}} \\
& =\frac{5 \times 28.0000-7.88 \times 18.52}{\sqrt{5 \times 12.7252-(7.88)^{2}} \sqrt{5 \times 79.2177-(18.52)^{2}}} \\
& =\frac{-5.9316}{4.01 / 4} \\
& =-0.658 \\
& \text { Probable Error }(P . E .)=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}} \\
& =\frac{0.6745\left(1-(-0.658)^{2}\right)}{\sqrt{5}} \\
& =\frac{0.6745 \times 0.566}{2.2361} \\
& =0.1 / 0 / \\
& \text { Coefficient of determination }=r^{2} \\
& =(-0.658)^{2} \\
& =0.4329
\end{aligned}
$$

## Annex4(C)

## Calculation of Karl Pearson's correlation coefficient between ROA and NPA of

 Everest Bank LimitedX = Net Profit to Total Assets (ROA)
$\mathrm{Y}=$ NPA to Total Lending (NPA)

| Year | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 1.50 | 1.27 | 2.25 | 1.6100 | 1.905 |
| 2063/64 | 1.40 | 0.80 | 1.96 | 0.6400 | 1.120 |
| 2064/65 | 1.70 | 0.68 | 2.89 | 0.4624 | 1.156 |
| 2065/66 | 1.73 | 0.48 | 2.99 | 0.2300 | 0.830 |
| 2066/67 | 2.09 | 0.16 | 4.36 | 0.0300 | 0.330 |
| Sum | IX=8.42 | $\overline{\mathrm{Y}}=3.39$ | $\bar{\Sigma} \mathrm{X}^{2}=14.45$ | $\overline{\mathrm{Y}}=2.9724$ | $\overline{X Y}=5.341$ |

Karl Pearson's correlation coefficient (r)
$=\frac{N \cdot \sum X Y-\sum X X \sum Y}{\sqrt{N \times \sum X^{2}-\sum(X)^{2}} \sqrt{N \times \sum Y^{2}-\sum(Y)^{2}}}$

$$
\begin{aligned}
& =\frac{5 \times 5.341-8.42 \times 3.39}{\sqrt{5 \times 14.45-(8.42)^{2}} \sqrt{5 \times 2.9724-(3.39)^{2}}} \\
& =\frac{-1.8388}{2.134} \\
& =-0.86 \\
& \text { Frobable Error }(\text { P.E. })=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}} \\
& =\frac{0.6745\left(1-(-0.86)^{2}\right)}{\sqrt{5}} \\
& =\frac{0.6745 \times 0.2604}{2.2 .361} \\
& =0.0785 \\
& \text { Coefficient of determination }=r^{2} \\
& =(-0.86)^{2} \\
& =0.7396
\end{aligned}
$$

## Annex4(D)

## Calculation of Karl Pearson's correlation coefficient between ROA and NPA of Nepal Investment Bank Limited

$\mathrm{X}=$ Net Profit to Total Assets (ROA)
$\mathrm{Y}=\mathrm{NPA}$ to Total Lending (NPA)

| Year | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 1.61 | 2.07 | 2.5921 | 4.2849 | 3.3327 |
| 2063/64 | 1.79 | 2.37 | 3.2041 | 5.6169 | 4.2423 |
| 2064/65 | 1.77 | 1.12 | 3.1329 | 1.2544 | 1.9824 |
| 2065/66 | 1.68 | 0.58 | 2.8224 | 0.3364 | 0.9744 |
| 2066/67 | 2.19 | 0.62 | 4.7961 | 0.3844 | 1.3578 |
| Sum | $\bar{\Sigma}=9.04$ | $\overline{\mathrm{Y}}=6.76$ | $\bar{\Sigma} \mathrm{X}^{2}=16.5476$ | $\overline{\mathrm{Y}} \overline{2}^{2}=11.8770$ | LXY=11.8896 |

Karl Pearson's correlation coefficient (r)

$$
\begin{aligned}
& =\frac{N \cdot \sum X Y-\sum X \times \sum Y}{\sqrt{N \times \sum X^{2}-\sum(X)^{2}} \sqrt{N \times \sum Y^{2}-\sum(Y)^{2}}} 5 \\
& =\frac{5 \times 11.8896-9.04 \times 6.16}{\sqrt{5 \times 16.5476-(9.04)^{2}} \sqrt{5 \times 11.877-(6.78)^{2}}} \\
& =\frac{-1.6624}{3.1296} \\
& =-0.445 /
\end{aligned}
$$

Frobable Error $(P, E)=.\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}}$
$=\frac{0.6745\left(1-(-0.4457)^{2}\right)}{\sqrt{5}}$

```
\(=\frac{0.6745 \times 0.8013}{2.2361}\)
\(=0.24\)
Coefficient of determination \(=\mathrm{r}^{2}\)
\(=(-0.4457)^{2}\)
\(=0.1986\)
```


## Annex 5(A)

## Calculation of Karl Pearson's correlation coefficient between Total Lending and NPA of

 NABIL Bank Limited$\mathrm{X}=$ Total Lending of bank
$\mathrm{Y}=$ Total NPA of bank
Amount in 100
millions

| Year | X | Y | X ${ }^{2}$ | Y ${ }^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 132.79 | 1.82 | 17633.18 | 3.3124 | 241.67 |
| 2063/64 | 159.03 | 1.78 | 25290.54 | 3.1684 | 283.07 |
| 2064/65 | 217.59 | 1.61 | 47345.40 | 2.5921 | 350.32 |
| 2065/66 | 279.99 | 2.24 | 78394.40 | 5.0176 | 627.17 |
| 2066/67 | 330.30 | 4.86 | 109098.09 | 23.6100 | 1605.25 |
| Sum | $\Sigma \mathrm{X}=1119.70$ | 2Y=12.31 | $\Sigma \mathrm{X}^{2}=277761.61$ | $\sum \mathrm{Y}^{2}=37.7000$ | $\Sigma \mathrm{XY}=3107.48$ |

Karl Pearson's correlation coefficient (r)

$$
\begin{aligned}
& =\frac{\mathrm{N} \cdot \sum \mathrm{XY}-\sum \mathrm{XX} \sum \mathrm{Y}}{\sqrt{\mathrm{~N} \times \sum \mathrm{X}^{2}-\sum(\mathrm{X})^{2}} \sqrt{\mathrm{~N} \times \sum \mathrm{Y}^{2}-\sum(\mathrm{Y})^{2}}} 5 \\
& =\frac{5 \times 310 / .48-1119.10 \times 12.31}{\sqrt{5 \times 277761.61-(1119.70)^{2}} \sqrt{5 \times 37.70-(12.31)^{2}}} \\
& =\frac{17533.89}{2.234 .4 /} \\
& =0.18
\end{aligned}
$$

Probable Error $\left(P, E_{1}\right)=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}}$
$=\frac{0.6745\left(1-(0.78)^{2}\right)}{\sqrt{5}}$
$=\frac{0.6745 \times 0.3916}{2.2361}$
$=0.1181$
Coefficient of determination $=\mathrm{r}^{2}$
$=(0.78)^{2}$
$=0.6084$
$\mathrm{X}=$ Total Lending of bank
$\mathrm{Y}=$ Total NPA of bank
millions

| Year | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 157.61 | 10.40 | 24840.91 | 108.16 | 1639.14 |
| 2063/64 | 177.93 | 6.41 | 31659.08 | 41.08 | 1140.53 |
| 2064/65 | 201.79 | 4.71 | 40719.20 | 22.75 | 9062.53 |
| 2065/66 | 255.19 | 5.51 | 65121.93 | 30.36 | 1406.09 |
| 2066/67 | 291.23 | 10.24 | 84814.91 | 104.85 | 2982.19 |
| Sum | [ $\mathrm{X}=1083.73$ | $\Sigma \mathrm{Y}=37.33$ | $\Sigma \mathrm{X}^{2}=247156.03$ | $\overline{\mathrm{Y}}{ }^{2}=307.20$ | LXY=8130.48 |

Karl Pearson's correlation coefficient (r)

$$
\begin{aligned}
& =\frac{N \cdot \sum X Y-\sum X \times \sum Y}{\sqrt{N \times \sum X^{2}-\sum(X)^{2}} \sqrt{N \times \sum Y^{2}-\sum(Y)^{2}}} 5 \\
& =\frac{5 \times 8130.48-1083.13 \times 31.33}{\sqrt{5 \times 247156.03-(1083.73)^{2}} \sqrt{5 \times 307.20-(37.33)^{2}}} \\
& =\frac{196.75}{2955.35} \\
& =0.061
\end{aligned}
$$

Frobable Error $($ P.E. $)=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}}$
$=\frac{0.6745\left(1-(0.067)^{2}\right)}{\sqrt{5}}$
$=\frac{0.6 / 14}{2.2361}$
$=0.30$
Coefficient of determination $=\mathrm{r}^{2}$
$=(0.067)^{2}$
$=0.004$
Annex 5(C)

## Calculation of Karl Pearson's correlation coefficient between Total Lending and NPA of Everest Bank Limited

$\mathrm{X}=$ Total Lending of bank
Y = Total NPA of bank
Amount in 10 millions

| Year | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 1013.62 | 12.92 | 1027425.50 | 166.93 | 13095.97 |
| 2063/64 | 1408.26 | 11.31 | 1983196.22 | 127.91 | 15927.42 |
| 2064/65 | 1883.64 | 12.73 | 3548099.65 | 162.05 | 23978.73 |


| 2065/66 | 2446.95 | 11.79 | 5987564.30 | 139.00 | 28849.54 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2066/67 | 2815.63 | 4.30 | 7927772.29 | 18.49 | 12107.20 |
| Sum | LX=9568.10 | $\sum \mathrm{Y}=53.05$ | $\Sigma \mathrm{X}^{2}=20474057.96$ | $\sum \mathrm{Y}^{2}=614.38$ | LXY=93958.86 |

Karl Pearson's correlation coefficient (r)

$$
\begin{aligned}
& =\frac{N \cdot \sum X Y-\sum X \times \sum Y}{\sqrt{N \times \sum \mathrm{X}^{2}-\sum(\mathrm{X})^{2}} \sqrt{\mathrm{~N} \times \sum \mathrm{Y}^{2}-\sum(\mathrm{Y})^{2}}} \\
& =\frac{5 \times 93958.86-9568.10 \times 53.05}{\sqrt{5 \times 20474057.96-(9568.10)^{2}} \sqrt{5 \times 614.38-(53.05)^{2}}} \\
& =\frac{-31 / 93.25}{52 / 48.20} \\
& =-0.115
\end{aligned}
$$

Frobable Error $\left(P, E_{1}\right)=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}}$
$=\frac{0.6745\left(1-(-0.715)^{2}\right.}{\sqrt{5}}$
$=\frac{0.3296}{2.2361}$
$=0.14 / 4$
Coefficient of determination $=\mathrm{r}^{2}$
$=(-0.715)^{2}$
$=0.5112$

## Annex 5(D)

Calculation of Karl Peerson'scorrelation coefficient between Total Lending and NPA of Nepal Investment Bank Limited
$\mathrm{X}=$ Total Lending of bank
$\mathrm{Y}=$ Total NPA of bank
Amount in 100
millions

| Year | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2062/63 | 131.78 | 2.72 | 17365.96 | 7.3984 | 358.44 |
| 2063/64 | 177.69 | 4.21 | 31573.73 | 17.7200 | 748.07 |
| 2064/65 | 275.29 | 3.09 | 75784.58 | 9.5480 | 850.64 |
| 2065/66 | 368.27 | 2.13 | 135622.79 | 4.5369 | 784.41 |
| 2066/67 | 409.48 | 2.54 | 167673.87 | 6.4516 | 1040.08 |
| Sum | IX=1362.51 | $\overline{\mathrm{Y}}=14.69$ | $\Sigma \mathrm{X}^{2}=428020.93$ | $\overline{\mathrm{Y}^{2}}=45.65$ | $\Sigma \mathrm{XY}=3781.64$ |

Karl Pearson's correlation coefficient (r)

$$
=\frac{N \cdot \sum X Y-\sum X X \sum Y}{\sqrt{N \times \sum X^{2}-\sum(X)^{2}} \sqrt{N \times \sum Y^{2}-\sum(Y)^{2}}}
$$

$$
\begin{aligned}
& =\frac{5 \times 3 / 81.64-1362.51 \times 14.69}{\sqrt{5 \times 428020.93-(1362.51)^{2}} \sqrt{5 \times 45.65-(14.69)^{2}}} \\
& =\frac{-110 \% .0 \%}{1880.07} \\
& =-0.588 \\
& \text { Frobable Error }(\text { P.E. })=\frac{0.6745\left(1-r^{2}\right)}{\sqrt{n}} \\
& =\frac{0.6745\left(1-(-0.588)^{2}\right.}{\sqrt{5}} \\
& =\frac{0.4413}{2.2361} \\
& =0.191 \\
& \text { Coefficient of determination }=\mathrm{r}^{2} \\
& =(-0.588)^{2} \\
& =0.345
\end{aligned}
$$


[^0]:    Source: Annex 1(B)

