

**NON-PERFORMING LOAN AND ITS IMPACT ON
NEPAL BANK LIMITED**

Submitted by

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RECOMMENDATION

This is to certify that the thesis

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has been prepared as approved by this Department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

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DECLARATION

I hereby declare that the work reported in this thesis entitled "**NON-PERFORMING LOAN AND ITS IMPACT ON NEPAL BANK LIMITED**" submitted to the Central Department of Management, Tribhuvan University, is my original work. It is done in the form of partial fulfillment of the requirements for the Master of Business Studies (MBS) under the supervision and guidance of Mr. Jagat Timilsina.

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ABBREVIATIONS

ALMCO	:	Assets Liabilities Management Committee
CAR	:	Capital Adequacy Ratio
CPG	:	Credit Policy Guidelines
CV	:	Coefficient of Variation
EBL	:	Everest Bank Ltd.
FY	:	Fiscal Year
Govt.	:	Government
IRR	:	Interest Rate Risk
KBL	:	Kumari Bank Ltd.
LLP	:	Loan Loss Provision
MBL	:	Machhapuchhre Bank Limited
NABIL	:	Nepal Arab Bank Limited.
NBBL	:	Nepal Bangladesh Bank Ltd.
NBL	:	Nepal Bank Limited
NBL	:	Nepal Bank Limited.
NGOs	:	Non-Governmental Bank Limited
NMT	:	New Management Team
NPA	:	Non-Performing Assets
NPL	:	Non-Performing Loan
NRB	:	Nepal Rastra Bank
RBB	:	Rastriya Banijya Bank
RWA	:	Core Capital to Total Risk Weighted Assets
SBI	:	State Bank of India
SCBNL	:	Standard Chartered Bank Nepal Limited
SD	:	Standard Deviation
TU	:	Tribhuvan University

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

As a financial institution, commercial bank is one of the major components of every economy because they collect dispersed savings and provide loan to the various sector according to the need of client.

A commercial bank is therefore any financial institution that receives, collects, transfers, pays, exchanges, lends, invests or safeguards money for its consumers. To accept money as deposit from its customer and to lend such collected fund to individuals, businesses and individual communities are two major functions of a bank. When bank provides loan, new business and industries is established which helps in the development of the country. In this way whole infrastructure of national development, direction of economy rate of progress is strengthen by banking system. The primary issue of development is to increase the investment in productive sector of economy. Such as industries and commerce, trade and commerce, international business, generation of individual income and expenditure, government revenue etc.

Generally bank refers to a commercial bank at present. Therefore, the activities of a commercial bank are synonyms to banking. Commercial banks pool scattered fund and channels it to productive use. It can be of various forms such as deposit banks, saving banks, industrial banks, mixed banks, exam banks etc. In absence of commercial banks, it would have been impossible to meet the financial needs of the country.

Commercial bank plays a significance role in the development of national economy. A bank is a financial institution that primarily deals with accepts deposits and deals in credit. Here financial institution refers to that business concern that is mainly confined to finance for the development, for the trade, commerce and industry so does the bank, trade, commerce and industry are the prime factors of the economic development. In Nepal, among the available financial institutions, banking industry dominates all. Thus banks are vital part of national economy and a vehicle for the business and service enterprise. Modern bank performs many varieties of functions. Therefore, it is difficult to define the function of modern banks because of their complexity and versatility in operation.

Non-performing Loan

Non –performing loan is the quantum risk assets those are not performing well and are in the verge of being written off at the cost of organization's profit earned or more correctly at the cost of stakeholder by this way or that way. Basically by reducing the value of the stakeholder wealth in every aspect keeping these views into consideration this study will concentrate on the non-performing loan and its impact on NBL.

Nepal Bank Limited, The first bank of Nepal is obviously a biome financial institution, which was established in 1994 B.S Kartik 30 with the principle of joint venture (Joint Venture between Govt. and General public). Now, NBL has one head office, 4 regional office and 110 branch offices.

1.1.1 Definition of Banks

The word 'Bank' has been derived from the Italian word 'Banco' which means a place for keeping, lending and exchanging money, the bank is a financial institution, which deals with money. It accepts deposits from individuals and organizations and grant loans to them it allows interest on the deposits made and charges interest on the loan granted. Since, it accepts deposits and grant loans, it is regarded as the trader of money. Further, it creates credit and supports for the formation of capital and hence it is regarded as manufacturer of money.

Bank is an organization established for the purpose of exchange money deposit lending money and participation in transactions (Commercial bank Act of 2031, Nepal).

From the above definition, it is clear that the bank is a financial institution, which accepts deposits from the public in different accounts and grant loans to individuals and corporations against their securities. The difference in interest rate on lending and deposit, interest rate spread, is the major source of income for the bank. Interest on lending is higher than the deposits. It is an agent of its clients, which remits money, collects incomes and pays expenses on behalf of them. It performs the wide variety of functions, which provide utility to the individual, corporation and general public.

1.1.2 Origin of Bank

The history of banking is nearly as old as civilization. In the ancient Rome and Greece, the practice of storing precious metals and coins at safe places and loaning out money for public and private purpose on

interest was prevalent. In England, banking had its origin with the London goldsmith who in the 17th century began to accept deposits from merchants and other for safe keeping of money and other valuables. As public enterprises, banking made its first appearance in Italy in 1157AD when the “Bank of Venice” was founded.

Linguistic (the science of language) and Etymology (the study of the origin of words) suggest an interesting story about the origin of the word “bank”. Both the old French word “Banque” and the Italian word “Benca” were used centuries ago to mean a “bench” or “money changer’s table.” Banks are among the most important financial institutions whose principle operation are concerned with a accumulation of the temporarily idle money with the general public for the purpose of advancing it to others for expenditure. Thus, the word banking has been used to denote a certain kind of trading in money. A bank is thereafter a corporation that deals in credit i.e. accept deposits from public, withdrawing by cheques and advances loans of various sorts.

The modern economic system cannot function without bank. According to the modern concept, banking is a business that not only deals with borrowing, lending and remittance of funds, but it is also important instrument for fostering economic growth. Presently there are various types of banks are established for instance, industrial bank, commercial bank, agricultural bank, joint stock bank, co-operative bank and development bank with different purpose.

1.1.3 Origin of Bank in Nepal

The history of banking in Nepal can be traced to 1877 A.D. when Tejarath Adda was established by the government to provide credit facilities to general public. These unorganized institutions although quite underdeveloped could still mobilize funds from wide range of different sources. Although the Tejarath Adda was established, it was to facilitate the growing trades with Tibet and India. Thus a need for the establishment of a modern bank had become essential to promote the trade of the nation. In the year 1923 “Treaty of peace and Friendship” were concluded between the Government of Britain and Government of Nepal. As per the treaty, Nepal could carry on import trade free of duty via India. In other word, it meant that Nepal was going to diversify its foreign trade and for that the country needed a modern bank. But it wasn't till 1936 A.D. that the Udyog Parishad (Industrial Development Board) was set up with the following objectives:-

To promote and protect the trade, commerce, industries and manufacturers of Nepal, and to consider and discuss questions connected with or affecting such trade, commerce, industries and manufacturers, to register and incorporate joint stock companies in conformity with Nepal Companies Act and also to examine and supervise their workings and to assists and advise Government of Nepal in economic and financial matters.

Thus, the “Udhyog Parishad” helped in opening new avenues for the advent of banking, industry and commerce in Nepal and thus helped to enhance the economic status of the country. A year after its formation, the Udhyog Parishad formulated the company act and the “Nepal Bank Act”

in 1937 A.D. which established the Nepal Bank Ltd with the technical cooperation of the Imperial Bank of India, as the first commercial bank of Nepal.

Before 1956 “Sarkar Mulukikhana Adda” (local treasury of the government) issued currency notes and the foreign exchange reserves of Nepal were maintained by Reserve Bank of India. During that period the Indian currency along with Nepalese currency was circulating in the economy. Thus to manage the circulation of national currency and to maintain exchange rate stability, there was an urgent need for the establishment of a Central Bank. In 1956, the Nepal Rastriya Bank Act was formulated and Nepal Rastra bank was established as central bank on April 26,1956. It took over the functions of Mulukikhana Adda “government Treasury” and started issuing currency in 1959; and also thus relieved the various Mal Addas (Revenue Offices) of their work. Thus it helped the government to perform treasury functions and stabilize the exchange rate. The NRB focused mainly on eliminating dual currency system prevalent in Nepalese market. The NRB tried to decrease the circulation of the Indian currency, replacing it with the Nepalese currency in various transactions of trade and commerce. The initiation of the Nepalese currency Act, 1958 and the opening of the bank’s branches in various part of the country were the major steps undertaken by the central bank in this respect. There were other government banking institutions. Rastriya Baniya Bank (National Commercial Bank), a state-owned commercial bank, was established in 1966. In the same year, the Land Reforms Saving Corporation was established to deal with finances related to land reforms. There were two other specialized financial institutions. Nepal Industrial Development Corporation (NIDC), a state-owned

development finance organization headquarter in Kathmandu, was established in 1959 with United States assistance to offer financial and technical assistance to private industry. The co-operative Bank, which becomes the Agricultural Development Bank in 1967, was the main source of financing for small agribusiness and cooperative. Almost 75 percent of the bank was state-owned; 21 percent was owned by the Nepal Rastra Bank, and 5 percent by cooperative and private individuals.

1.1.4 Commercial Banking System in Nepal

The commercial bank is the oldest form of bank. In general, bank that performs all kinds of banking business and generally finances trade and commerce is called commercial bank. It occupies quite an important place in the framework of every economy.

The commercial banks are those banks, which pool together the scattered savings of the community and arrange for their productive use and generate profit. They accept deposits from the public and use the money to help the community by making loans to individuals, organizations, governments and business. Commercial banks, acquire funds from one group of surplus spending units and making these funds available to other deficit units facilitating the effective mobilization of resources, which in turn leads to sound economic growth of the country.

The main aim of a commercial bank is to earn profit like any other entity. It lends a certain percentage of the cash lying in deposits on higher interest rate than it pays on such deposits. The difference of interest on deposit received and loans advanced are the main source of its income. Thus commercial banks are merely a business firm engaged in financial

intermediation as well as perform additional functions under strict supervision and control of the central bank.

In the context of Nepal the first commercial bank, “Nepal Bank Limited” was established in 1937 A.D. and the second “Rastriya Banijya Bank” was established in 1966 A.D.

Nepal has opened its door to foreign commercial banks in the kingdom almost a decade back. As the country followed economic liberalization, there was massive entrance of foreign banks in Nepal. Consequently, Nepal Arab Bank was established in 1985 A.D. Similarly, the Nepal Indosuez bank was established as a joint venture between Nepal and France in 1986 A.D. the legitimate entry of foreign commercial banks with full-fledged banking functions led to rapid growth of banking system. After 1990 economic liberalization policy obtained by the government, now there are 31 commercial banks operating banking activities in the country.

It can be seen from the below table that commercial banks has grown in Nepal since first joint-venture commercial bank was established in Nepal in the year 2041 BS.

Table 1.1
List of commercial Banks in Nepal

1	Nepal Bank Limited
2	Rastriya Banijya Bank Limited
3	Agricultural Development Bank Limited
4	Himalayan Bank Limited
5	Nepal SBI Bank Limited

6	Nepal Bangladesh Bank Limited
7	Standard Chartered Bank Nepal Limited
8	Nabil Bank Limited
9	Siddhartha Bank Limited
10	Laxmi Bank Limited
11	Nepal Investment Bank Limited
12	Kumari Bank Limited
13	Machhapuchhre Bank Limited
14	Everest Bank Limited
15	Bank of Kathmandu Limited
16	Nepal Credit and Commerce Bank Limited
17	Nepal Industrial & Commercial Bank Limited
18	Lumbini Bank Limited
19	Bank of Asia Nepal Limited
20	Development Credit Bank Limited
21	Prime Commercial Bank Limited
22	Citizen Bank International Limited
23	NMB Bank Limited
24	Global Bank Limited
25	Sunrise Bank Limited
26	Kist Bank Limited
27	Janata Bank Limited
28	Mega Bank Limited
29	Civil Bank Limited
30	Commerz & Trust Bank Nepal Limited
31	Century Commercial Bank Limited

Source: Nepal Rastra Bank.

1.1.5 Profiles of Nepal Bank Limited

1.1.5.1 History

His Majesty King Tribhuvan inaugurated Nepal Bank Limited on Kartik 30, 1994 Bikram Sambat. This marked the beginning of an era of formal banking in Nepal. Until then all monetary transactions were carried out by private dealers and trading center.

Then Prime Minister Maharaja Juddha Shumsher J.B.R. speaking on the occasion with the kind permission of His Majesty the King stated this work which is being done in the larger interest of the nation is a great moment for me. Until today a bank could not be opened in Nepal. Therefore this bank, which is being established under the name of Nepal Bank Limited to fill that, need and to be inaugurated by His Majesty the King, is a moment of great joy and happiness.

The Bank's objectives to render service to the people whether rich or poor and to contribute to the nation's development will also need the support and best wishes of all, which I am confident, will be forthcoming.

In that era, very few understood or had confidence in this new concept of formal banking. Raising equity shares were not easy and mobilization of deposits even more difficult. This was evident when the bank floated equity shares worth NRs. 2,500,000, but was successful only in raising NRs. 842,000.

"In the absence of any bank in Nepal the economic progress of the country was being hampered and causing inconvenience to the people and therefore with the objective of fulfilling that need by providing service to

the people and for the betterment of the country, this law in hereby promulgated for the establishment of the Bank and its operation".

The total deposits for the first year was NRs. 17,02,025 where current deposits was about NRs. 12,98,898 fixed was about NRs. 3,88,964 and saving was NRs. 14,163. Loan disbursed and outstanding at the end of the first year was NRs. 1,985,000.

From the very conception and its creation, Nepal Bank Ltd, was as joint venture between the government and the private sector. Out of 2500 equity shares of NRs. 100 face value, 40% was subscribed by the government and the balanced i.e. 60% was offered for the sale to private sector. There were only 10 shareholders when the bank first started.

1.1.5.2 Introduction

Nepal Bank Limited, The first bank of Nepal was established in November 15, 1937 A.D (Kartik, 30, 1994). It was formed under the principle of Joint venture (Joint venture between govt. & general public). NBL's authorized capital was Rs. 10 million & issued capital Rs. 2.5 million of which paid-up capital was Rs. 842 thousand with 10 shareholders. The bank has been providing banking through its branch offices in the different geographical locations of the country.

1.1.5.3 Vision Statement:

"To remain the leading financial institution of the country."

1.1.5.4 Mission Statement:

Nepal Bank Limited seeks to provide an environment within which the bank can bring unique financial value and services to all customers. It

will be a sound institution where depositors continue to have faith in the security of their funds and receive reasonable returns; borrowers are assured of appropriate credit facilities at reasonable prices; other service-seekers receive prompt and attentive service at reasonable cost; employees are paid adequate compensation with professional career growth opportunities and stockholders receive satisfactory return for their investment.

1.1.5.5 Values Statement:

At Nepal Bank Limited, we believe that our banking should be based on:

-) Respect, service and safety for the customers we serve
-) Respect, reward and opportunity for the people with whom we work
-) Respect, cooperation and support for the economic community of Nepal

1.1.5.6 Objectives:

Nepal Bank Limited has the following objectives:

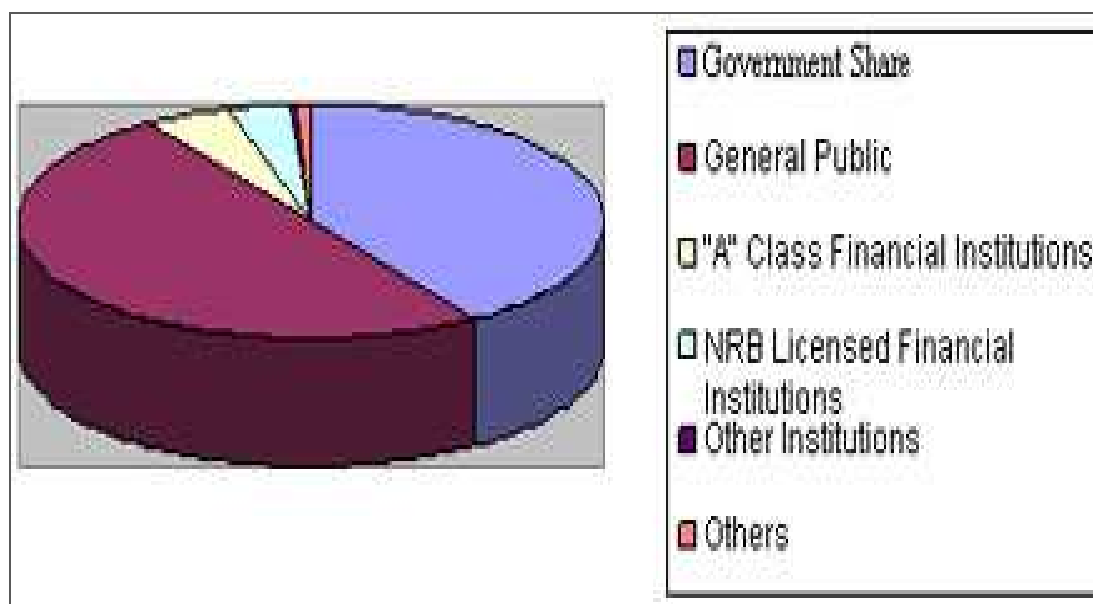
-) Continue to maintain leading share of banking sector with a significant presence in all major geographical areas in the country.
-) Provide competitive and customer oriented banking services to all customers through competent and professional staff.
-) Reclaim leadership within the national financial community.

1.1.5.7 Shareholding Composition

S.N.	Ownership	Percent
1	Government of Nepal	40.49
2	A Class Financial Institutions	4.92
3	NRB Licensed Financial Institutions	3.42
4	Other Institutions	0.52
5	General Public	49.94
6	Others	0.71
Total		100

Source: Nepal Bank Limited

1.1.5.8 Shareholding Composition (Pie-Chart View)



1.1.5.9 Composition of Board of Directors

The bank is under the control of Central Bank of Nepal, Nepal Rastra Bank (NRB). NRB has appointed a five members management committee. This management committee performs as the board of director of the bank.

1.1.5.10 Management Team

The NBL has stated a continuous and difficult journey of reforms. As per the Clause 1 (m) under Section 86 (C) of Nepal Rastra Bank Act, 2001, NRB has been taking the management of NBL under its control whose period was until mid-March 2011 has now been extended to mid January 2012. A team of NBL employees had accepted to take responsibility of handling bank management subsequent to the expiration of the agreement in July 21, 2007 between the Bank of Scotland (Ireland) Ltd., a consultancy firm that was appointed for the restructuring of NBL and ICC consulting until new arrangement is made. Recently the management committee comprising Director of NRB as Coordinator and Director Generals of NBL is handling its management.

1.1.5.11 Functions & services

At the time of established NBL playing a role of commercial bank as well as development bank, after the some time, there were some development banks like Agriculture development bank; rural development bank etc. came into operation. As a result NBL's responsibility has decrease to some extent. At the time NBL is authorized to transact various kinds of business, which are generally to be the normal function of commercial banks. The main function of the bank is as follows:

- a) To accept deposit with or without interest from the government, Nepalese and foreigners and open account in their names. The mode of acceptances of deposit is mainly current account, saving account and fixed account.
- b) To provide loans to individuals, companies against security of

-) Nepal and foreign securities and promissory notes.
 -) Shares and debentures of companies that have registered under the Nepal company act.
 -) Bills of exchange endorsed by reliable persons.
 -) Promissory notes or bonds executed by two or more persons.
 -) Advance against export document.
 -) Hire purchase loans
 -) Working capital to industrial projects and priority sector as agriculture, small- scale industries and services.
- c) To issue letter of credit.
- d) To exchange the currency of Nepal with foreign countries.
- e) To purchase sale and discount of bills of exchange endorsed of accepted by a reliable bank that matures with in 90 days relating to the export of goods produced in Nepal. The bills of exchange, promissory notes, bonds, commercial bills drawn on payable in Nepal, bearing the signature of two or more reliable persons and maturing within 90 days.
- f) To act as an agent on commission on behalf of banks client in the following business.
 -) Selling purchasing, transferring and receiving in safe custody, shares and debenture of companies with limited liability.
 -) Sending remittance to any place in Nepal and other foreign countries by draft, telegraph transfer of tax transfer.
 -) Remitting money realized on share and securities in Nepal and foreign countries.
- g) To make an investment on subsidiary companies.

h) To carries out following transaction on behalf of the government as per order or instruction in places having no branches of NRB.

) Receiving deposit of government money.

) Remitting money through bills of exchange, cheque, and drafts in Nepal and foreign countries.

) Realizing dividends on share and interest on debenture or promissory bills.

) Distributing pension and retirement funds to the civil servants' and Nepal army personal through out the country.

i) Miscellaneous services

) Opening specified current accounts.

) Collecting and discounting in foreign bills.

) Buying and selling travelers cheque.

) Issue of guarantee.

) Providing trade inquiries for all the parts of the world.

) Providing safe deposit vault.

) Collecting dividends.

) Raise loans against properties of the bank.

) Rent, sell or mortgage of the bank.

Thus, there are various kinds of job that bank can involve transact according to commercial bank act, 1974, the y are:

a) To purchase or sell goods with commercial motives or hold immovable property to which it has acquired and not to sell a

period of exceeding seven years, except the bank is required to hold such property for its own use.

- b) To provide loans of any kind to any company or corporate body in which the directors or any member of his/her individual family works as directors or managing agent or have any financial interest.
- c) To purchase any immovable property for any purpose other than banks own use.
- d) To provide loans of any kind to any company or corporate body in which the directors or any member of his /her individual family works as directors or managing agent or have any financial interest.
- e) To provide loans to a director or any member of his /her own undivided family.

1.2 Statement of the Problem

Commercial banks and financial institutions in Nepal have been facing several problems like lack of smooth functioning of economy. Different policies and guidelines of NRB, security over liquidity caused by lack of good lending opportunities, poor information system, increasing nonperforming loans etc. In the present context where Nepalese banks are facing the problem of increasing NPL, more amounts have to be allocated for loan loss provision. The provision amount is taken out by deducting from the profit of the bank; the bank's profit might come down.

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 proposes which results into economic growth. However lending also carries credit risk, which arises from the failure of borrower to fulfill its

contractual obligation during the course of transaction. It is well known fact that the bank and financial institution in Nepal face the problem of swelling non-performing loans and the issue is becoming more and more unmanageable.

Two large banks dominate the banking sector. NBL is 40.49% government owned and RBB is 100% government owned. However both banks are troubled by bad loans and are now lending very little to customers. Together, NBL and RBB account for 16% of entire banking systems deposits and loans. Both banks reportedly have a large number of NPLs. The problem of NPL is seen less in private banks in comparison to public banks. Even most of the privately owned banks has NPL within international standard, some privately owned banks NPL is higher than that international standard (5%).

Loans and advance falling in the category of sub-standard, doubtful and loss are classified and defined as non-performing loan. Non-performing loan is the quantum risk assets those are not performing well and are in the verge of being written off at the cost of organization's profit earned or more correctly at the cost of stakeholder by this way or that way. Basically by reducing the value of stakeholder wealth in every aspect, Nepalese commercial banks are suffering from non-performing loan problem. It is directly affecting to decrease the net profit of banks. So the banks want to decrease their non-performing loan by using different strategies.

As per the statistical record maintained until mid-January, 2011, the non-performing assets of commercial banks and its ratio with the total assets has increased to some extent as compared to the period until mid-July, 2010. Such ratio rose to 3.3 percent from 2.5 percent between the period

of mid-July, 2010 and mid-January, 2010 (Government of Nepal, Ministry of Finance, Economic Survey, 2010/11). The rise in overall NPA ratio of commercial banks is attributed mainly to the rise in NPA volume of government owned Rastriya Banijya Bank, Agricultural Development Bank, Nepal Bank Limited and private sector owned Nepal Bangladesh Bank and Machhapuchhre Bank. Some financial institutions and development banks are in the process of restructuring and collapsed due to high non-performing loan. So, Nepalese banking sectors has been becoming a victim of huge NPL.

The main problem of non-performing loan arises from lending process of loan. The various factors are increasing NPL of banks. NPL has been affected on the net profit and total loan so it's negative impact.

Such above stated situation raise a question, whether the Nepalese management team is competent enough? Whether the NRB fails to regulate the commercial banks? On the basis of the problem this study has been conducted to find out the solution of following problems;

-) What is the volume of non-performing loan in NBL?
-) What is the trend of non-performing loan in NBL?
-) How does it affect on the net profit of the bank?
-) How generation of non-performing loan can be controlled?

1.3 Objectives of the study

The major objective of this research is to examine the level of non-performing loans (NPLs). The specific objectives are;

- a) To analyze and evaluate the Non-performing Loans of Nepal Bank Limited.

- b) To examine the trend of the non-performing loan of Nepal Bank Limited.
- c) To examine the relationship of non-performing loan and profitability position.
- d) To recommend the policy guideline to control over in non-performing loan of the bank.

1.4 Significance of the Study

The significance of this study is theoretical as well as practically applied. It is hoped that this study may be able to explore the NPL of Nepal Bank Limited. The problem of NPL is serious one in Nepalese commercial bank. So all commercial banks will have easy to control the NPL. This study will be useful for researchers, students and for those who wants to have further study in detail. This study may be fruitful to government planner, policymakers and financial institutions. Similarly, this study filled up the gap of knowledge about various aspects of causes, impacts, volume of NPL.

1.5 Limitations of the Study

Only Nepalese commercial banks have been considered for the study and Nepal Bank Limited has been selected as a sample for the study. Hence the findings may not be applicable to other bank i.e. development banks, finance company and other companies of Nepal.

-) The study is considered only with NPL of Nepal Bank Limited in the study area. So this study does not consider the aspect of bank. Only few articles and text books are available in the current subject in Nepalese prospective.

-) As such the availability of pertaining data and information are also limited.
-) Primary data collections have its own limitation, since most of the banks are so strict to reveal the information on their NPLs.
-) Their assumption bias in the question of efficiency factor, like the NPL level is the measuring mechanism of their performances.
-) This is the basic reason that the commercial banks do not pay heed to release the exact NPL information.
-) However, whatever data are available from NRB and annual report of NBL. Therefore this study will be based on the secondary data. So, the period of the study is limited only for the fiscal year 2005 to 2010.

1.6 Organization of the Study

The chapter scheme as been deal with the contents mentioned in each chapter of the research. The report of this research has been organized in five chapters; Introduction, Literature Review, Research Methodology, Data Presentation and Analysis and finally Summary, Conclusion and Recommendation.

Chapter I: The first chapter deals with the introduction including general background of the study, statement of the problem, objectives of the study, significance of the study, scope and limitation of the study and organization of the study.

Chapter II: Second chapter follows the first chapter and carries meaningful importance in the whole work. It is the collections of authenticated views in regard to the matter of study. It is collected

through various journals, news paper, websites, related books and news letters and more importantly Nepal Rastra Bank issues i.e. NRB samachar, directives, circulars and statistical data.

Chapter III: The third chapter has been provided research methodology including research design, nature and source of data, population and sample size, method of analysis and data analysis tools.

Chapter IV: The fourth chapter includes data presentation and analysis. It has been presented the collected data and result of the study in required form. This chapter deals with the main part of the study.

Chapter V: Finally, the fifth chapter deals with summary and conclusion to the study and recommendations given to the commercial banks. This is the ending of the work. Having done all the research work up to the fourth chapter. The work comes out with a consequence that should be deliberated in this chapter as a solution.

CHAPTER-II

REVIEW OF LITERATURE

This part of the study deals with making the review of past studies made on non-performing loan. So, this chapter will encompass the following:

Conceptual/ Theoretical Review.

Review of NRB Directives.

Review of Articles/ Journals/Newspapers/Websites.

Review of Book.

Review of Thesis concerned.

Research Gap.

2.1 Conceptual Theoretical Review

Under this heading following issues are discussed under the Nepalese prospective.

a) Loan and Advances

Commercial bank's main function is to create form it's borrowed fund. The bank doing so converts its liability into active asset. Loans and advances are the asset coming from such activities. Loans and advances dominate the asset side of the balance sheet of any bank and also constitute the primary source of income to the banks. Loans and advances may take different forms and are allowed against various types of securities. Loan, overdraft, discounting of bills of exchange etc are some of the forms of bank lending.

b) Pass due/ overdue

An amount due under any credit facility is treated as past due or overdue when it has not been paid on the due date fixed by the bank. Any amount due to the bank under any credit facility is overdue if it is not paid on the due date fixed by the bank.

c) Loan classification

Loan classification refers to the process banks use to review their loan portfolio and assign loans to categories of grades based on the perceived risk and other relevant characteristics of loans and as per guidelines of central banks. In the context of Nepal as per guidelines of NRB, loans are classified into four categories namely pass, substandard, doubtful and loss.

d) Performing loan

Performing loans are those that repay principal and interest timely to the bank from the cash flow it generates. In the context of Nepal, the loans classified as 'pass' category is termed as performing loan.

e) Non-performing loans/ Non-performing assets

These are the loans that do not repay principal and interest timely to the bank. A common feature of NPL appears to be that a payment is more than 90 days past due. In Nepal, if the loan is past due for over 3 months, it is NPL. Hence the loans falling under substandard, doubtful and loss categories are regarded as NPL.

However, adopting a proper risk management in place some loans turns to be distressed in due course of time to various unavoidable reasons. Such distressed loans whose due date exceeds 90 days are called NPL. These NPL should be managed very carefully and technically in order to avoid a huge loss for the institution.

It will be imperative to understand the terms NPA and NPL. NPA relates to net profit financial assets. In this sense, NPA are defined as debt instrument whose obligors are unable to discharge their liabilities as they become due. Therefore, NPAs comprises the wider area of assets portfolio where as the NPL is referred to distressed loans classified as per regulation of the central bank. Since the loan being the significant component on financial asset portfolio, NPL and NPA are used interchanging but if there are no other assets other than loans to denote, it will be better to say NPL.

Nepalese financial system still has a high level of NPL. System's soundness cannot be restored without resolving the problem of NPL. The problem of high level of NPL needs to be addressed in time resolved as soon as possible. The sooner the problem is resolved, the quicker the crisis is removed from the system. In order to resolve the problem of NPL we should require initiating various measures in the system. Preventive measures will be helpful to control the growth and curative measure will be beneficial to lower down the level of NPL in the system. In order to resolve the problem the root cause of the problem needs to be identified, analyzed and properly addressed.

If the NPLs are already at outstanding level, curative measures are required to lower down the level of NPL. If the level of NPL is at high

level despite of having properties management, best credit practices and strong compliance mechanism in place, then the curative measures become significantly important. In such a situation, the authorities need to pay greater attention because the system might be falling adverse effect of external factors or shocks beyond the control of institution. In such a circumstance, extra supportive measures are required to be introduced by the supervisory authorities and the government (NBL, Annual Report 2010).

If the NPLs in the system is growing due to the lack of good credit culture corporate governance and risk management skills with in the institutions, prudential measure such as; issuance of prudential regulation, compliance of regulation and strengthening of internal risk management skill, formulating of risk control policies and procedures will be beneficial. These are generally called preventive measures controlling the growth of NPLs.

Sometimes, the system may require introducing of both types of preventive and curative measures simultaneously when the system's NPL is growing and is already at the outstanding level. In order to response such type of situation in other countries, broad bank restructuring had been introduced in form of a reduction of NPL in the banking system bank capitalization, the implementation of regulations and norms to bring about improved bank governance and risk measurement, the implementation of rules to promote transparency and efforts to strength the capacity of supervisory authorities. NRB is also adopting both the curative and preventive measures to lower down the level of NPLs within comprehensive financial sector reform program (NRB, 2010)

Generally speaking, a loan is classified as NPLs only after it has been appears at least three months. The detail and classification standards of NPLs may vary from country to country. In the Nepalese case the three months above overdue rule has been adopted.

f) Loan loss provision (LLP)

LLP is the accumulated fund that is provided as a safeguard to cover possible losses upon classification of risk inherited by individual loans. There is risk inherent in every loan. Hence provisioning made as cushion against possible losses and to reflect the true picture of the bank's asset. Hence there is practice of showing net loan (total loan loss provision) in financial statements one percent provisions for total credit is and ideal position as it is the minimum requirement for all good loans. In Nepal, 1 percent, 25 percent, 50 percent and 100 percent provisioning should be made for pass, substandard, doubtful and loss loans respectively.

2.2 Review of Relevant NRB Directives

Nepal Rastra Bank issues various relating banking regulations and prudential norms. NRB has provided following directives for classification of loan and advances and it's loss provisioning for the purpose of minimizing possible risk in bank's lending by using the authority given by sub section 1 section 23 of NRB acts 2012 (Revised) and section 19 (ka) of commercial bank act 2031 (Revised).

Classification of loan and advances on the basis of overdue again schedule. A bank is required to classify their loan on the basis of overdue.

Classification of loan and advance.

Loan and advances is required to classify

) **Pass**

This class includes the loan that principal overdue up to 3 month. It is also defined and classified and classified as performing loan.

) **Substandard**

Loan with principal overdue above 3 month and up to 6 months called substandard loan.

) **Doubtful**

All loans and advances which are past due for a period 6 months to 1 year shall be included in this category.

) **Loss**

Loan with principal overdue above 1 year called bad loan, which have least possibility of recover or considered unrecoverable and those having this possibility of even partial recovery in future.

Loans and advances failing in the category of substandard, doubtful and loss are classified and defined as NPL.

2.3 Review of Books

There is no adequate availability of books in this topic but some relevant books are available in the market. These books are categorized in the from international publications and Nepali publications as follows. Book named “Banking Management” says that in banking sector or transaction,

an unavoidable of loan management and its methodology is regarded very important. Under this management, many subject matters are considered and thought, for example, there subject matters like the policy of loan flow, the documents of loan flow, loan administration, audit of loan, renewal of loan, the condition of loan flow and the provision of security, the provision of the payment of capital and its interest and other such procedures. This management plays a great role in healthy competitive activities (Bhandari D, 2003:170)

It is very important to be reminded that most of the bank failures in the world are due to shrinkage in the value of loan and advances. Hence, risk of non-payment of loan is known as credit risk or default risk (Dahal N, 2002:114)

Portfolio management helps to minimize or manage the credit risks by spreading over the risk to various portfolios. These methods of managing credit risk is guided by the saying do not put all the eggs in a single basket (Bhandari D, 2004:300).

2.3.1 Review of Book (Nepalese Publications)

A book for beginners in banking is writer duo Mr. Bhuwan Dahal and Mrs. Sarita Dahal namely 'A hand book to Banking' has emphasized on various aspects of banking in brief that is required to exercise sound banking practices. It says "A bank is judged on the basis of capital, assets quality, management earning liability and sensibility to market risk." Almost all the government banks are running at loss while all the private sector banks are showing profits, it is very difficult to call them sound if appraised from CAMELS approach. Some banks have very low capital

adequacy ratio while some banks have piled up NPL. Similarly banks do not have proper system in place for management of market risks. Writer duo is more specific in this book while marking financial institutions in terms of standard form of yard sticks i.e. CAMELS. Nepalese banking sector as they mean are yet to be streamlined and systematized. Due to this reason credit processing and calculation of market risks are given low priority while extending advances. There are the main causes of siphoning of funds and impairment of loans. As a result whole financial sector is heading towards a huge and accumulated NPL. Therefore, suggestion is given by the writer duo to NRB to control the system by implementing directives enforceable/ actable in this regard (Dahal B. and Dahal S., 2007:171).

2.3.2 Review of Books (International Publication)

It seems that the problem of cumulating NPL is also raising its head to neighboring country in India where banking system is considered to be more systematic advanced and up to the global standard. Therefore Reserve Bank of India (RBI), the central bank of India has given paramount preferences to the mounting NPL in financial sectors of Indian economy.

The book on 'Managerial Finance' written by Weston and Brigham stress on Risk- Return Trade Off as one of the major financial functions. They believe that the maximization of the value of the firm can be achieved through maximization of returns in one hand and minimization of risk on the other. The relationship between the expected future state of the economy and the performance of individual firms enables a relationship

to be set forth between the state of the economy and the returns from investment in firms (Weston and Brigham, 1980 : 93).

Describing about the new area of finance, James C. Van Horne in his book 'Financial Management and Policy' stresses on two broad functions viz:

-) Investment in assets and new products
-) Determining the best mix of financing and dividends in relation to a company's overall valuation.

According to him "Investment of funds in assets determines the size of the firm, its profits from operations, its business risk and its liquidity. Obtaining the best mix of financing and dividends determines the firm's financial charges and its financial risk; it also impacts its valuation" (Van Horne, 1997; 758-776)

Mr. B.S. Khubchandani in his book "Practices and law of Banking" has mentioned about NPL and income recognition norms. He has quoted a high level committee headed by Shri M Narasingham appointed by the government of India that was formed in August, to examine all aspects relating to the structure, Organization, function and procedures of financial system (Khubchadani B.S., 1991: 305).

The recommendations were to make the balance sheets more transparent with full disclosures. It also emphasizes on internationally accepted accounting system practices so far income

recognition is concerned i.e. income recognition should be based on cash realization instead of accrual basis. Similarly, risky assets should be classified as per their NPL criterion. It also speaks of BASEL committee recommendation in regard to the capital adequacy ratio of banks. It says following these recommendations, the RBI issued a host of guidelines/ instructions to banks in April 1992. Since the crux of the matter relates to definition of NPL based on which alone the income recognition, assets classification, provisioning and capital adequacy of banks and other financial institution is determined, the RBI has issued the following guidelines the banks from time to time.

- a) The definition/ criterion adopted for treating an account as NPL is that, for instance, if interest debited/ installment due in an account prior to 31 March 1991 say as on 31 March,1991 is still not collected such interest/ installments should be deemed to have become due on 30 April, 1991. Up to 30 April 1991, the facilities would be treated as “substandard” and from 1 may1991, they would be treated as “doubtful”. Thus for the treatment of credit as a NPL, the entire period for which interest/ installment remains uncollected should be reckoned.
- b) All the accounts will be treated as non-performing. If in the case of:
 - i) Term loans: interest remains past due for a period of
 -) Quarters, for the ending 31 March 1993
 -) Quarters, for the ending 31 March 1994
 -) Quarters, for the ending 31 March 1995 and onwards.

- ii) Cash credit and overdrafts: the account remains out of order or the periods indicated specified before.
- iii) Bills purchased discounted: The bill (BP/BD) remains overdue/ unpaid for the period specified hereinbefore.
- c) If a particular facility of borrower on the above criterion/ definition becomes NPL and then all the facilities granted to the borrower should be treated as NPL. Thus, the treatment of NPL concept is borrower wise and not facility wise.
- d) It was also clarified by the RBI that in cases where the outstanding balances in the principal operating account is less than the sanction limit/ drawing limit but there are no credits continuously for six months as on the date of the balance sheet or credits are not enough to cover the interest debited during the period, these accounts should be treated as out of order.
- e) An account should be considered 'past due' if is not repaid within 30 days from the due date. Thus if interest is due on 31 March 1992, it becomes past due on 30, April 1992, if it is not paid/ collected within 30 days grace period.
- f) Both interest and installments, wherever applicable, should be taken in to account for assessing the NPA status of an account, after of course, allowing for 30 days, grace period in both cases.

2.4 Review of Relevant Articles, News Letter, Journals

For Nepalese banking system and its amounting NPL level, some of the think takes from the related sectors have commented and forwarded their views, suggestions through articles, journals, speeches, news letters etc.

These suggestions, recommendations and views are based on past track record and practices: some of financial menace. Therefore the researcher has tried to drag in some of their related views to the research work.

He has described of main factor effect to increasing level of NPL. According to his own view on main causes for high level of NPA in the Nepalese banking system “Nepalese banking system suffers from problem in credit management and also some obstacles beyond the area of credit management those are contributing to raise the level of NPL. For the purpose of this analysis, the factors contributing have a high level of NPL have been classified into two groups. The first is internal factor which mainly comprise of weakness of the particular bank or financial institution in the credit management and over sight deficiencies in this regard. If preventive measures are applied at the institutional level, the banks themselves to some extent can resolve the problem of NPLs. Similarly, another aspect relate with the external factor beyond the control of the external factors beyond the control of the bank and financial institution. We can point out some of these components as follows:

Internal factors

- a) Lack of loan write off policies
- b) Poor recovery efforts even the loan is categorized under bad.
- c) Insider abuse and fraud in lending and recovery.
- d) Limited supervision by the bank itself and weak internal controls in the bank. This comprises of weak supervision and monitoring, lack of reward and punishment system and poor management

information system (MIS) to monitor manage and control the risks with in the banks and financial institutions.

- e) Management oversight deficiencies in policy level, along with rapid and aggressive growth strategies in some banks and lack of competencies in the BOD to monitor risk.
- f) Risk management deficiencies within banks and financial institutions. This comprises of poor system, procedures and credit culture in credit management.

External factor

- a) Poor legislative regime in the system specially governing financial issues.
- b) Other systematic problems that are being faced by all the financial institutions equally.
- c) Security and conflicts situation at present.
- d) Poor regulative and supervisory capacity of the central bank in the past.
- e) Deterioration in economic growth rates and activities since last few years.
- f) Lack of supportive institutions helping to reduce the NPA, such as lack of effective and professional notary public office in order to eliminating problems associated with bills purchased and discounted, lack of secured transaction office to register moveable properties, lack of credit rating agencies facilitating to rate the risk grades, lack of asset management corporation assisting the financial institution t manage the distressed loans, lack of proper training center and academic institutions focused to enhance the

skills on credit management, lack of debt recovery tribunal to deal with loan accounts.

2.5 Review of Thesis

Researcher tried to find out research works done in this field through the concerned places and found two unpublished thesis in the related field. Therefore review of the same is attempted.

Khadka, D.K. (2004), in this thesis entitled "Non-Performing Assets of Nepalese Commercial Banks" has pointed out overall commercial bank's problems raised by NPL. He has stated with some definitions of NPL to make the subject easily comprehensive to the reader /new researchers. Though his research is meant for overall commercial banks, he has focused his views and comment on two large state owned commercial banks saying "the total NPL in the banking system is about 35 billion while it is even worse in case of two largest commercial banks RBB and NBL."

He gives a short glimpse of the status of these two state owned commercial banks in line with views expressed by Dr. Tilak Rawal, former governor of NRB that overall NPL stands at 30 percent and the NPL level exclusively for RBB and NBL counts for 52 percent and 62 percent respectively that together accounts for 37 percent of the total deposit of sum of Rs 200 billion and 40 percent of total loan outstanding of Rs 125 billion of the banking system as a whole.

He also emphasizes some relaxation based on the Himalyan Times on 12 November, 2003 that says "the financial sector reform measures undertaking can be broadly grouped under three heads-Reengineering of

NRB, Restructuring of RBB and NBL, and capacity building of the financial sector. Management of the two ailing banks has been handed over to two teams, consisting of experts from within and outside Nepal.”

His study is based on sampling of five commercial banks. Those are Nepal Bangladesh Bank Limited (NBBL), Nepal SBI Bank Limited (NSBIBL), Bank of Kathmandu (BOK), Nabil Bank Limited (NABIL) and Nepal Investment Bank Limited (NIBL). Comparison has shown the NBBL to be the worst in case of NPL. He states “Among five sampled commercial banks, the NPL of NBBL seems very worse than all other banks. The NPL of NBBL at the end of F/Y 2059/060 stands at 12.73 percent of total lending’s which was decreased from 15.77 percent of previous year.

Paudel, P. (2001) in his thesis entitled "A Study on lending practices of joint venture commercial banks with reference to Nepal Bangladesh Bank Ltd. And Himalayan Bank Ltd." has made comparative study of these two banks in different lending aspects and strategies.

In his findings, the liquidity position of NBBL is comparatively better than HBL. The liquidity ratio of HBL is more stable and consistent than NBBL that indicates the stable policy of HBL, NBBL is found slightly better to be maintaining between assets and liabilities. NBBL has high loan and advances to total assets ratio, loan and advances to total deposit ratio, but HBL has high investment to total loans and advances and investment and total investment to total deposit ratio. He has concluded that NBBL is able to manage its assets to complete in this competitive banking business than HBL. As per his findings its liquidity position of NBBL is better and hence HBL is recommended to its liquidity position.

He has suggested both bank to strictly follow the NRB directives, which will help them to reduce credit risk arising from borrower's defaulter, lack of proper credit appraisal, defaulter by blacklisted borrowers and professional defaulter. Loan loss provision of both banks is in fluctuating trend. So both banks are suggested to adopt sound credit collection policy which will help to decrease loan loss provision.

The main objective of his thesis lending practices of joint venture commercial banks with reference to NBBL and HBL is investment criteria and sector, loan distribution and advance practice of joint venture bank. The limitation of the thesis is based on secondary data given by responded, five years data and non ending year's data.

Ojha, L.P. (2002) in his thesis entitled "lending practices" has written that the commercial banks have to expand their credit in the area if rural economy so as to compromise between the liquidity and credit need such economy. This helps in minimizing the idle fund in business and at the same time contribute to the national economy. The banks should also increase the volume of credit in the sector of agriculture as the ratio of contribution made by the banks in this priority is decreasing.

Research has found out that following the normal guidance of Nepal Rastra Bank and acting upon reduces many on the credit risk arising from borrower's defaulter, lack of proper credit appraisal, defaulter by blacklisted borrowers, and professional defaulter. The over confidence of commercial banks regarding credit appraisal efficiency and negligence taking information from Credit Information Bureau has caused many of the bad debts in these banks. He thinks that these banks have to follow

the directives of NRB strictly and be more cautious and realistic while granting loans and advances.

The high volume of liquidity reveals that a degree of lending strength has been prevailing in all of the commercial banks. The lack of reliable lending opportunities and fear of losing the principal in rural sector has been keeping these banks less oriented towards the lending function. Hence, the government should take appropriate action to initiate these banks to attract to flow credit in rural economy. Posing the compulsions by directives does not create long-term healthy lending practices unless the commercial banks are not self-motivated to flow credit in this sector.

Joshi, S. (2003) in his thesis entitled "A comparative Study on Financial Performance of Standard Chartered Bank Nepal Limited and Everest Bank Limited" states that the mean current ratio of EBL is slightly higher than that of the SCBNL and the variability of ratio of EBL is more consistence than SCBNL in comparison. The mean ratio of cash and bank balance to total deposit of SCBNL is lower in comparison to EBL. SCBNL has better liquidity position than EBL because of the high volume of liquidity indicated the inability of the bank to mobilize its current assets. Moreover SCBNL's ratios are homogeneous than EBL. The mean ratio of cash and bank balance to current assets of SCBNL is lower in comparison to EBL. Similarly, SCBNL's ratios of the study period are more consistent than EBL. The mean ratio of loan and advances to total deposit of EBL is higher than SCBNL. It can be said that EBL used to provoked grater loan and advance in comparison to its total deposit than SCBNL. Likewise, SCBNL's ratio seems to be variable than EBL. The mean ratio of investment on government securities to total working fund of SCBNL is higher than EBL. Consequently, it has

consistency in maintaining the ratio than EBL. The mean ratio of return on loan and advances of SCBNL has found to be significantly greater than EBL with more consistency than that of EBL. The mean ratio of credit risk of SCBNL is lower than that of EBL's ratio are more consistent than that of SCBNL. Growth ratio of deposit is more consistent than that of SCBNL is lower i.e. 19.28% in comparison to EBL i.e. 76.46%.

The main statement of the problem of his research is the investment decision is the major tool of financial institution. There are many finance companies and commercial banks operating in Nepal. The fast growth of such organizations has made pro-rata increment of in collecting deposits and their investment. They collect adequate amount from the mass, however they could not find or locate new investment sectors required to mobilize their fund on the changing context of Nepal. Many banks or companies succumbed to liquidation although they had sustainable investment capacity. The increasing rate of liquidation has caused a downward trend in investment sectors. It has ensured bad impact on interest rate to the depositors, lower market value of shares etc. for the assessment of such adverse impact, this study has shown to contrast and analyses the investment policy of joint venture bank. Joint venture banks viz. Standard Chartered Bank Nepal Limited and Everest Bank Limited. The main objectives are compare investment policy of concern banks, find out the empirical relationship among total investment deposit, deposit utilization loan and advance, net profit and outside asset and compare of SCBNL and EBL.

Regmi, P. (2004) in his thesis entitled "Credit Management of Commercial Banks with reference to Nepal Bangladesh Bank and Bank of Kathmandu" states that commercial banks are those banks, which

works from commercial view point. They perform all kinds of banking functions such as accepting deposits, advancing credit, credit creation and management of credit and advances. Portfolio management helps to minimize or manage the credit risks and spreading over the risks to various portfolios. Banks earn interest on credit and advances which is one of the major source of income for banks. On average 5 year of research period, cash and bank balance to total deposits of ratio of NB Bank & BOK is 12.75% and 14.12% respectively. Likewise NB bank and cash and bank balance 1.584 times of current deposits and BOK has cash and bank balance 1.14 times of current assets. NB bank: most of the credit and advances almost 70% is provided and asset guarantee credit is increasing period by period. After assets guarantee bank has provided credit based on bills guarantee credit is 3421.3 millions (76.1% of total credit) and in the last period it is 3347.99 millions (58.2 % of total credit).

The main statement of the problem of his the Nepal is a small country with small market. Economic condition of the country is degrading. Nepal being an agricultural country needs more investment in this sector. Nevertheless, commercial banks and other concerned in industrial and foreign projects. As a result, the credit extended to this sector is unsatisfactory. Besides, they are not even fulfilling the NRB's regulation of 12% investment of their total loans to priority sectors like agriculture, cottage and small industries and services. Similarly, the banks are not following the diversification principle i.e. they are not considering the investment portfolio position. A good portfolio theory indicates diversification of investment able funds to reduce risks. Hence the principle "does not put all the eggs in same basket" really does not apply in context of Nepalese commercial banks. As a result, many banks today

could not recover their loan because in past , a major portion of their investment were made in garment, carpets and hotel sectors that now come to the brick of extinction. The objectives of this research are to analyze the functions, objectives, objectives, credit and advances procedures and recovery status of the NB bank and BOK.

Shrestha, S. (2005) in his thesis entitled “Credit management with special reference to Nepal SBI Bank Ltd” illustrates that lending is one of the most important parts of function of a commercial bank and composition of loan and advances directly affects the performance and profitability of the bank. There is intense competition in banking business with limited market and less investment opportunities available. Every bank is facing the problem of default loan and there is always possibility of a certain portion of the loan and advances, profitability deposits positions of Nepal SBI Bank Limited is analyzed and its contribution in total profitability has been measured.

The main statement of the problem of his study is the credit management is the essence of commercial banking. Consequently, the formulation and implementation of sound credit policies are among the most important responsibilities of bank directors and management. Well conceived credit policies and credit careful credit practice are essential if a bank is to perform its credit creating effectively and minimize the risk inherent in any extension of credit. Credit management effects on the company’s profitability and liquidity so it is one of the crucial decisions for commercial banks. Measuring the credit performance in quality, efficiency and contribution of profitability, liquidity position and its effect on credit performance and measure the growth rate and propensity

of growth based on trend analysis are the main objective of his dissertation.

Gurung, A.K. (2006) in his thesis entitled “Lending policy and recovery management of Standard Chartered Bank Nepal Ltd and NABIL Bank Limited” has found out that the deposit collection by the banks shows that increasing but in a fluctuating trend. The trend analysis of deposit collection the increase in deposit collection in the forthcoming years will continues. Out of different types of deposit collection account, higher account has been collected in saving deposit account. Out of the total deposit collection, SCBNL has disbursed 36% of average as a loan and NABIL has disbursed 52% of its deposit collection as a loan disbursement to deposit collection ratio of commercial banks, it is around 60%. Thus, this ratio is quite low increasing of sample bank especially of SCBNL. It is further proved by the calculation of correlation coefficient, which is 0.75 and 0.23 of SCBNL and NABIL respectively.

In order to analyze the recovery management of these banks, their loan loss provision and NPL were analyzed. While looking at the loan loss provision of SCBNL it is decreasing trend from 2002. The correlation coefficient of loan loss provision and loan disbursement of SCBNL and the trend of loss provision is decreasing every year in case of NABIL, which is provide by the trend analysis. The correlation of loan loss provision and loan disbursement of NABIL is negative.

The main statement of his problem is there many banks are mushrooming although banks are not interested to expand their branch in remote rural area. There are difficulty and length formality of procedure for long term and medium term as well as short-term loan, low deposit habit of Nepalese people and lack of strong act of providing procedure of bank,

lending and investment sector of bank, recovery condition of both SCBNL and NABIL bank.

Mishra, S. (2007) in her thesis entitled “Credit management of Everest Bank Limited” illustrate that liquidity that liquidity position; cash reserve ratio shows the more liquidity position. Cash and bank balance to interest sensitive ratio shows the bank is able to maintain good financial condition. Cash and bank balance to current asset ratio shows that the bank’s sound ability to meet the daily cash requirement of their customers deposit. That is why liquidity position of the bank is the better.

In the aspect of profitability position, interest income to interest ratio shows the more profitable salivation. In addition, total income to total expenses ratio shows the overall predominate of the bank is satisfactory operating income. Return on loan and advances are showing position that is more profitable on of the EBL. Analysis of the assets management ratio, loan and advances to total assets ratio shows the better performance but loan and advances to total deposit position in minimum than the averages. Whereas investment in loan and advances is safely and not taking more risk. That’s why assets management position of the bank shows better performance in the latest year.

After analyzing the lending efficiency of the bank, the loan loss provision to loan and advances indicator shows the better performance in the latest year. The interest expenses to total deposit ratios shows the improving efficiency of the bank. EBL Bank has sufficient liquidity. It shows that bank has got investment sectors to utilize their liquid money.

This is recommended that cash and bank balance of EBL bank is high. Bank efficiency should be increased to satisfy the demand of depositor at level of cash and bank balance does not provide return to the bank.

Therefore some percentage of the cash and bank balance should be invested in profitable sectors. Bank should open their branches in the remote area with the objectives to provide the banking services and minimum deposit amounts should be reduced. The main objective of this study is to evaluate the credit management of Everest Bank Limited. Besides, there may be other objectives as well like to examine the impact of deposit in liquidity, loan management procedure, and asset management and lending efficiency of the Everest Bank Limited.

Limbu, R (2008) in his thesis entitled "Credit Management of NABIL Bank Limited" highlighted that aggregate performance and condition of NABIL bank. In the aspect of liquidity position cash and bank balance reserve ratio shows the more liquidity position. Cash and bank balance to total deposit has fluctuating trend in 5 years study period. Cash and bank balance to current deposit is also fluctuating. The average mean of cash and bank balance to interest sensitive ratio is able to maintain good financial condition.

In the aspect of assets management ratio, assets management position of the bank shows better performance in the recent years. Non-performing assets to total assets ratio is decreasing trend. The bank is able to obtain higher lending opportunity during the study period. Therefore, credit management is in good position of the bank. In leverage ratio, debt to equity ratio is in an increasing trend. High total debt to total assets ratio poses the higher financial risk and vice-versa. It represents good condition of total assets to net worth ratio. In the aspect of profitability position, total net profit to gross income, the total interest income to total income ratio of bank is in increasing trend. The study shows the little high earning capacity of NABIL through loan and advances. Earning per share and the price earning ratio of NABIL is in increasing trend. These mean that the better profitability in the coming last years. It represents

high expectation of company in market and high demand of share. Loan loss provision to total loan and advances ratio and non-performing loan to total loan and advance ratio of NABIL is in decreasing trend. The ratio is continuously decreasing this indicates that bank increasing performance. Thus, credit management is in a good position.

The main objective of the research study is to evaluate various financial ratio of the NABIL bank. To analyze the portfolio lending of selected sector of banks, to determine the impact of deposit in liquidity and its effect on lending practices and to offer suitable suggestions based on finding of his study.

In the statistical tools analysis, average mean, correlation analysis and trend analysis have been calculated. Correlation coefficient between total credit and total assets has high degree of positive correlation. Correlation coefficient between total deposit and loan and advances has high degree of positive correlation it is concluded that increasing total deposit will have positive impact towards loan & advances.

Ghimire, B.R. (2009) in his thesis entitled “Credit Sector Reform and NRB” has tried to highlight the effects of change or amendment in NRB directives regarding loan classification and loan loss provisioning. “Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what is common across most of the banks is the increased size of non performing assets (NPAs) to resolve the problem of the losses or likely losses of this nature facing the industry NRB has, as the central bank, amended several old directives and issued many new circulars in the recent years

As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful and even loss categories, loan loss provisioning now compared to previous

arrangement would be dramatically higher. The new classification and provisioning norms are very lent able as they help to strengthen banks financially. He has also stated that tightening provisioning requirements on NPL is to ensure that banks remain liquid even during economic downturns. In the conclusions he has mentioned that in the recent years NRB has worked for management and reform of the credit of the financial institution more seriously and NRB has adopted reforms aimed not just at dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis, "All prudential directives of NRB in connection of credit sector reform have been made revised on after April 2002. To adapt to such changes there can be some difficulties and for a better and harmonized reform NRB should continue to be supportive, proactive and also participative to take opinions of bankers for a change in regulation / policy taking place in the future."

2.6 Research Gap

From the study it has been found that the high level NPAs can be regarded as a serious burden to the Banks and economy as well. So high level of NPAs is the early symptom of Bank failure and NPAs are one of the serious problems faced by the commercial Banks. Some researchers were done in which matters relating to loan loss provisioning and one-way analysis of non-performing loan has been discussed but no research was found in detailed analysis of non-performing loan and its impact on profitability of Banks. Hence the researcher had attempted to fill this research gap by taking reference of Nepal Bank Limited. This research will be able to deliver some of the present issues, latest information and data regarding total non-performing loan, loan-loss provision, total loan and advances, total deposit, total assets and net profit of Nepal Bank Limited.

CHAPTER –III

RESEARCH METHODOLOGY

This study aims to explore the NPL and its impact of NBL. It also intends to examine whether there is any direct relationship between the growing instability of all kinds and NPLs. And to fulfill the objective of the study a systematic methodology has been followed. To reach the findings of any study we have to use right methodology. Methodology is a design or framing of whole study. This study has used mostly descriptive research methods. By this methodology researcher tries to find out the real scenario of NPLs of NBL and its comparative relation to banking healthy. This study only based on secondary data, as a data analysis tools, researcher has used the statistical and financial analysis tools to show the relations.

3.1 Research Design

So research design is the specification of methods and procedures for acquiring the information needed. It is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control variance. This research is aimed at studying the NPL of NBL. For this purpose, the present study has been analytical and descriptive type of research design.

3.2 Natures and Source of Data

This study has included only secondary data for sources of information. Secondary data will be obtain from all the published books, booklets, articles, bulleting, annual reports and other related materials including

international rules and regulation. The data collected will be both qualitative and quantitative.

Basically, the data and information required for this purpose is to be obtained from Nepal Rastra Bank. Therefore all the data collected are secondary. Following are the secondary data collection sources:

-) Annual reports, News letter, broacher etc. of NBL.
-) Laws, guidelines and directive regarding the subject matter i.e. Text books
-) Related articles published in newspapers, journals, magazines, and other publications.
-) Unpublished thesis and dissertation.
-) Various reports published by NRB. Quarterly report of financial statistics, banking and financial statistics no 48, Nepal Rastra Bank Samachar etc.
-) Various related websites www.nrb.org.np, www.nepalbank.com, <http://internet/newsnevents.php>, www.nepalnews.com.np, www.sebonp.com.np etc.
-) Besides above any kind of other sources, such as assertions, interviews, remarks/ option by the experts that provides valuable data and conclusion regarding the subject mater has been considered in this study.

3.3 Population and Sample

Population refers to the entire group people, events or things of interest that a researcher wishes to investigate. Since this study is about NPL and

its impact of commercial banks, the population for this study comprised all the licensed commercial banks of the country.

There are altogether 31 commercial banks in Nepal. The commercial banks of Nepal can be categorized into two type's namely public sector and private sector. Public sector banks include two old banks NBL and RBB and private sector banks comprise remaining banks. Out of total population NBL is selected as sample for this study by using judgmental sampling method. Cause of selecting NBL is more effecting by NPL and its impact on various sector (like Net profit, loan lending procedure, deposit repayment capacity, loan loss provisioning etc.) of NBL. So this study could represent true picture of NPL and its effect on commercial banks. Among the 31 commercial banks, I have chosen on Nepal Bank Limited.

3.4 Methods of Analysis

The available information is grouped as per the need of the research work in order to meet research objectives. The collected data are presented in appropriate forms of in tabulation and charts. The collected data are organized and analysis is done using all the appropriate statistical, financial and simple mathematical tools.

3.5 Financial Tools

While adopting financial tools, ratio analysis is used as a benchmark for evaluating the financial position and performance of any firm. Financial analysis is the process of identifying the financial strength and weakness of the balance sheet and profit and loss account. In other words financial analysis is the use of financial statements to analyze a company's

financial position and performance and to assess future financial performance.

3.6 Ratio Analysis

Ratio analysis is the widely used tool of financial analysis. Financial ratio is the mathematical relationship between two accounting figures. Ratio is simply one number expressed in terms of another and as such it expresses the numerical or quantitative relationship between two reprisals. Ratio analysis reflects the relative strengths and weakness of any organization and also indicates the operating and financial growth of the organization.

Ratios help 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 calculated which are related to the subject matter. Following ratios have been computed and analyzed in this study.

- a) NPL to Total Loans and Advances
- b) NPL to Total Assets
- c) NPL to Total Deposits
- d) Loan Loss Provision to NPL

a) NPL to Total Loans and Advance Ratio

This ratio determines the proportion of non-performing loans in the total loan portfolio. It is used to know the situation of NPL of Nepal Bank Limited. Knowing % of NPL to total loans and advances, we may be aware what are the possibilities of roll over of the funds exposed to risk assets? Higher ratio implies the bad quality of asset of banks inform of

loans and advances. Hence lower NPL to total loan and advances ratio is preferred. This ratio is calculated as follows:

$$\text{NPL to Total Loan and Advance} = \text{NPL} / \text{Total Loan and Advances}$$

b) NPL to Total Assets Ratio

This ratio determines the proportion of NPL held to total assets of the bank. This ratio measures the financial health of bank and measures the marginal efficiency of bank. Higher the ratio indicates that the low capacity of marginal efficiency of bank and weak financial health. Therefore, lower the ratio is preferred for financial institutions.

$$\text{NPL to Total Assets Ratio} = \text{NPL} / \text{Total Assets}$$

c) NPL to Total Deposits

This ratio tells the volume of NPL compared to ascertain the repayment capacity of the banks to its depositors; this ratio is calculated as follows;

$$\text{NPL to Total Deposit} = \text{NPL} / \text{Total Deposits}$$

d) Loan Loss Provision to NPL Ratio

This ratio describes the quality of assets in the form of loans and advances that a bank is holding. Since there is risk inherent in loans and advances, NRB has directed commercial banks to classify its loans into different categories and accordingly to make provision for probable loss. Loan loss provision signifies the cushion against future contingency created by the default of the borrower in payment of loans and ensures the continued solvency of the banks. Since high provision has to be made for NPL, higher provision for loan loss reflects increasing NPL in volume

of total loans and advances. The low ratio signifies the good quality of assets in the volume of loans and advances. It indicates how efficiency it manages loan and advances and make efforts to cope with probable loan loss. Higher ratio implies higher portion of NPL in the total portfolio. This ratio is calculated as follows:

$$\text{LLP to NPL} = \text{LLP} / \text{NPL}$$

3.7 Statistical Tools

Some important statistical tools are used to achieve the objective of this study. In this study, statistical tools such as correlation coefficient analysis, standard deviation, coefficient or variance, least square linear trend and hypothesis testing have been used. The basis analysis is written in point below:

-) Trend analysis of important variable.
-) Coefficient of correlation between different variables.

3.7.1 Trend Analysis

Trend analysis is one of the statistical tools, which is used to determine the improvement or deterioration of its financial situation. Trend analysis informs about the expected future values of various variables. The least square method has been adopted to measure the trend behaviors of these selected banks. This method is widely used in practices.

Diagrammatic and Graphical Representation

Diagrammatic and graphs are visual aids that give a bird eye view of a given set of numerical data. They represent the data in simple and readily

comprehensive form. Hence various bar diagrams, pie chart and graph have been used for presentation and analysis of data. This representation has been conducted on the various factors related to NPL.

- a) Trend line analysis of NPL
- b) Trend line of Total Loan and Advances.
- c) Trend line of Total Assets.
- d) Trend line of Loan Loss Provisions.
- e) Trend line of Net Profit.
- f) Trend line of Total Deposits

3.7.2 Correlation and Regression

Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when the change in the value of one variable is accompanied by the change of another variable. For example in the study area, change in the value of loan and advances are associated with the change in NPL. Similarly, changes in value of LLP are accompanied by change in NPL.

Karl person's correlation coefficient

Karl person's correlation coefficient denoted by r measures the intensity or magnitude or degree of relationship between the two variables.

CHAPTER –IV

DATA PRESENTATION AND ANALYSIS

In this chapter, efforts have been made to present and analyze the collected data. All the efforts have been made to analyze and present the collected data from the various sources. This chapter determines the quality of the study because how for the collected data are present and analyze with the help of various financial and statistical tools, tables, graphs etc as of meaningfully and clearly. This chapter is performed to know the clear picture of the non-performing loan of Nepal Bank Limited.

Simple percentage is used to analyze the data as arithmetical tools. Karl Person's correlation coefficient and trend analysis are also used to analyze data as statistical tool. Ratio analysis is used to analyze the data as financial tool. Graphical and diagrammatic analysis is used to show the clear picture of collected data but it has been using with ratio analysis. This chapter is the heart of the study as all. The findings, conclusions and recommendations are going to be derived from the calculations and analysis done in this section.

4.1 Ratio Analysis

4.1.1 NPL to Loan and Advances Ratio

This ratio determines the proportion of NPL in the total loan portfolio. As per NRB directives the loans falling under category of sub-standard, doubtful and loss are regarded as NPL. Loans and advances are the assets created through liabilities to earn profit. The ratios represent the NPL to

loan and advance, higher ratio implies the bad quality of assets of banks in the form of loan and advances. Hence lower NPL to total loan ratio is preferred.

Table 4.1
NPL to Total Loan and Advance Ratio

Year	Total Loan and Advance	NPL	Ratio (In %)
2006 mid July	12442	2262	18.18
2007 ,,	13757	1856	13.49
2008 ,,	15765	2067	13.11
2009 ,,	19560	967	4.94
2010 ,,	24935	1242	4.98

Source: Nepal Bank Limited.

Table 4.1 exhibits the ratio of NPL to total loan and advance of NBL for five consecutive years. The figure represented in table 4.1 shows that NBL has the highest ratio through out the study period. Ratios of NPL to loan and advance are 18.18 percent in mid July 2006, 13.49 percent in mid July 2007, 13.11 percent in mid July 2008, 4.94 percent in mid July 2009, and 4.98 percent in mid July 2010. The figures show decreasing trend to the ratio to NPL to total loan and advance. Decreasing trend to this ratio is the result of effective credit management of bank and its effort of recovering bad debts through establishment of recovery cell

Figure 4.1
Status of Total Loan and Advance and NPL

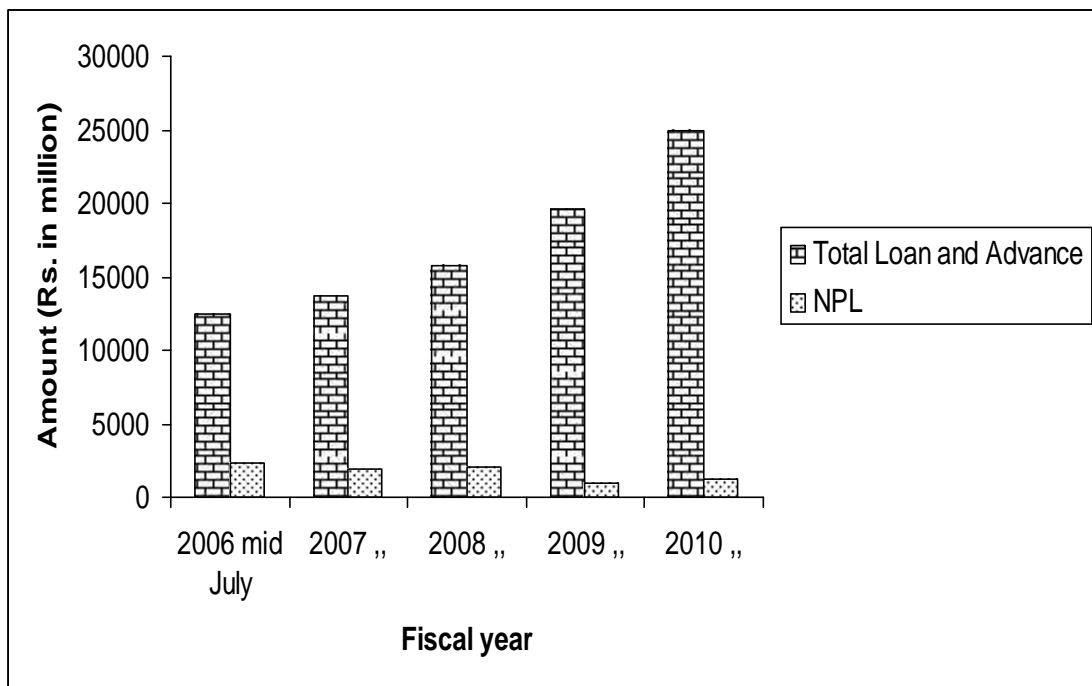


Figure 4.1 makes easier and clear to understand the status of NPL and total loan and advances of NBL for five consecutive years.

4.1.2 NPL to Total Assets Ratio

This ratio determines the proportion of non-performing loan to total assets of the banks. This ratio measures the inactive assets of bank. All the assets have to generate the net profit but the NPL is always in inactive that are also one type of assets. Lower the ratio signifies that the banks have more assets, which are generating the net profit. Hence lower the ratio is better the financial portion of the bank.

Table 4.2
NPL to Total Assets Ratio (Rs. in million)

Year	Total Asset	NPL	Ratio (%)
2006 mid July	35919	2262	6.30
2007 ,,	39259	1856	4.73
2008 ,,	42053	2067	4.92
2009 ,,	47559	967	2.03
2010 ,,	46431	1242	2.67

Source: Nepal Bank Limited.

Table 4.2 exhibit the ratio of NPL to total assets of NBL for five consecutive years. Ratios of NPL to total assets are 6.30% in mid July 2006, 4.73% in mid July 2007, 4.92% in mid July 2008, 2.03% in mid July 2009, 2.67% in mid July 2010. According to table 4.2 the ratio is in decreasing trend of NBL for five years. This trend shows that these assets were using to generate the net profit.

Figure 4.2
Status of NPL and Total Assets

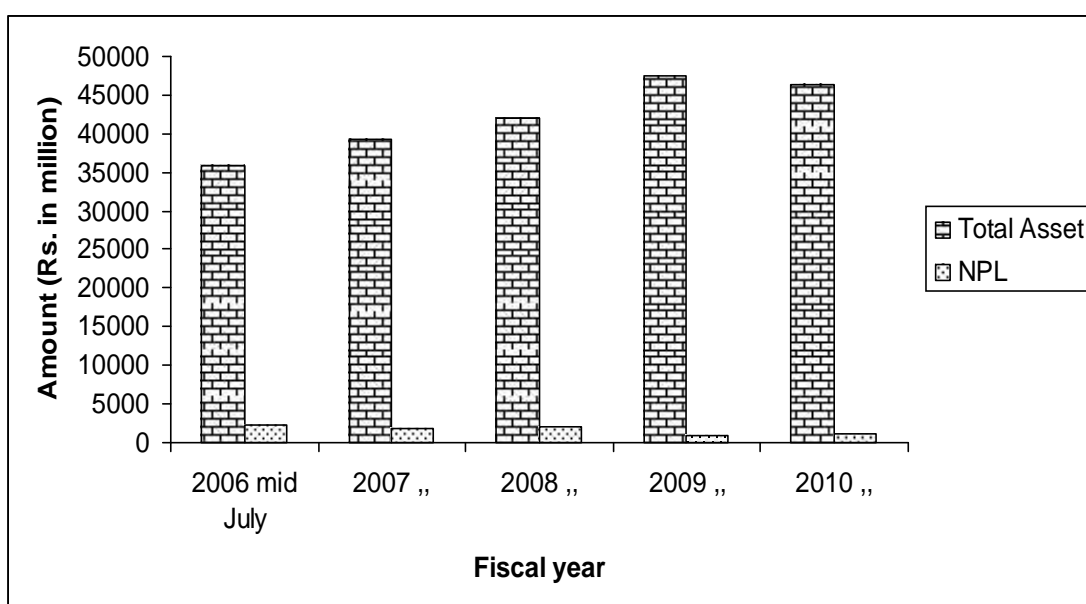


Figure 4.2 makes easier and clear to understand the status of NPL and total assets of NBL for five consecutive years.

4.1.3 NPL to Total Deposit Ratio

The NPLs are directly related to the money that is borrowed by a bank from depositors. The ratio of NPL to total deposit represents the non refundable deposit of banks. It means the ratio indicates the measure the repayment capacity of banks.

Table 4.3
NPL to Total Deposit Ratio (Rs. In Million)

Year	Total deposit	NPL	Ratio
2006 mid July	35830	2262	6.31
2007 ,,	39014	1856	4.76
2008 ,,	41829	2067	4.94
2009 ,,	45194	967	2.14
2010 ,,	42406	1242	2.93

Source: Nepal Bank Limited.

Table 4.3 exhibit the ratio of NPL to total deposit of NBL for five consecutive years. Ratios of NPL to total deposit are 6.31% in mid July 2006, 4.76% in mid July 2007, 4.94% in mid July 2008, 2.14% in mid July 2009, 2.93% in mid July 2010. This gives in current years due to strict recovery policies and recovery actions of the banks, the repayment capacity of bank are improvement with lower NPL level compared to deposit growth rate indicates effective recovery action.

Figure 4.3
Status of Total Deposit and NPL

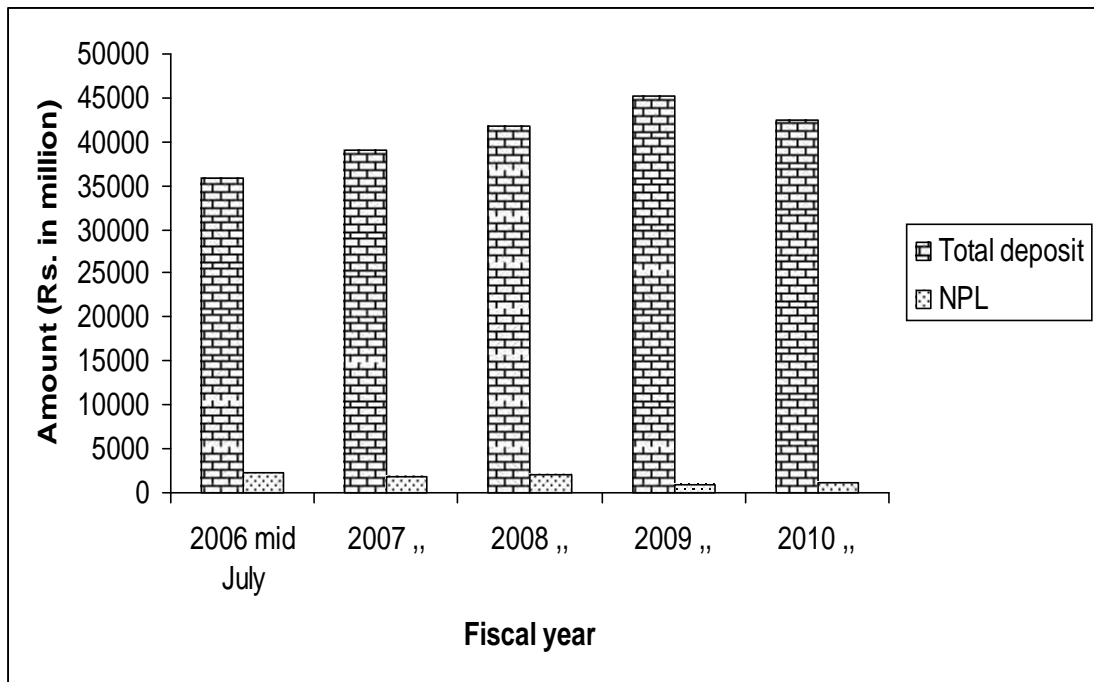


Figure 4.3 makes easier and clear to understand the status of NPL and total deposit of NBL for five consecutive years.

4.1.4 Loan Loss Provision to NPL Ratio

This ratio determines the proportion of provision held to NPL of the banks. This ratio measures up to what extent of risk inherent in NPL is covered by the total loan loss provision. Higher ratio signifies that the banks are safeguard against future contingencies that may create due to NPL or in other words, banks have cushion of provision to cape the problem that may be cause due to NPL. Hence higher the ratio better is the financial portion of the bank

Table 4.4
Loan Loss Provision to NPL Ratio (Rs. In million)

Year	Loan Loss Provision	NPL	Ratio
2006 mid July	2685	2262	118.70
2007 „	2698	1856	145.37
2008 „	2513	2067	121.58
2009 „	1945	967	201.14
2010 „	1528	1242	123.03

Source: Nepal Bank Limited.

Table 4.4 exhibit the ratio of provision held to NPL of NBL for five consecutive years. Ratios of LLP to NPL are 118.70% in mid July 2006, 145.37% in mid July 2007, 121.58% in mid July 2008, 201.14 % in mid July 2009 and 123.03 % in mid July 2010. According to table 4.4 the ratio of mid July 2007 to mid July 2008 & mid July 2009 to mid July 2010 was decreased and in mid July 2007, & 2009 was increased. It shows that NBL has fluctuating trend for the study period. Higher LLP indicates the poor ineffective credit policy, higher proportion of NPA and poor performance of the economy. Hence the greater LLP of NBL suggest that there is high proportion of NPL in the total loan and advance and decreasing trend of loan provision amount of NBL explains that NBL has been successful to reduce its NPL resulting to decreasing LLP amount.

Figure 4.4
Status of NPL and LLP

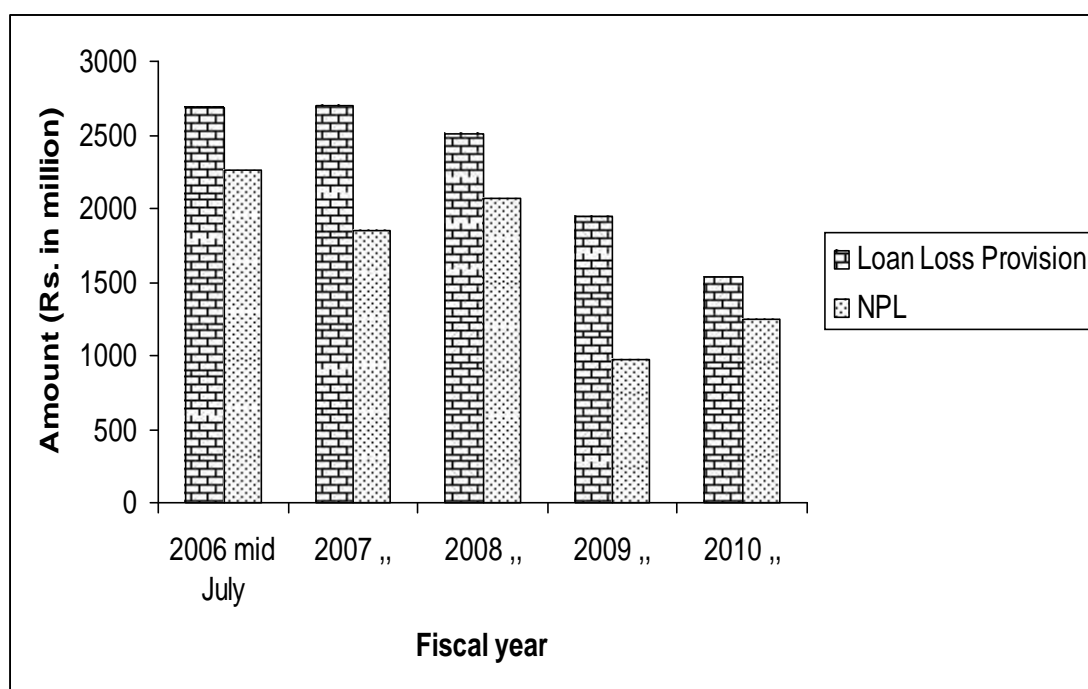


Figure 4.4 makes easier and clear to understand the status of NPL and loan loss provision of NBL for five consecutive years.

4.2 Trend Analysis

4.2.1 Trend Analysis of NPL

Under this topic, an effort has been made to calculate the trend value of NPL of NBL for five years form the mid July 2006 to mid July 2010 and forecast for next five year mid July 2011 to mid July 2015. The following table -5 shows the trend value of NPL for the ten years form mid July 2006 to mid July 2015.

Table 4.5
Trend Analysis of NPL

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$ $y_c = 1678.80 - 292.90x$
2006	-2	2264.60
2007	-1	1971.70
2008	0	1678.80
2009	1	1385.90
2010	2	1093.00
2011	3	800.10
2012	4	507.20
2013	5	214.30
2014	6	-78.60
2015	7	-371.50

Source: Annex -1.1

Table 4.5 shows that NBL has decreasing trend of NPL. The average NPL of NBL is Rs 1678.80 million, which is decreasing at the rate of Rs.292.90 million every year. NPL is expected to decrease from Rs 1093 million in mid July 2010 to Rs-371.50 million in mid July 2015, which is negative value for NPL. Therefore its NPL would be zero, in mid July 2014. According to decreasing rate of NPL, the bank would recover all the NPL in starting of study period. Here, NPL of NBL has decreasing trend. Decreasing trend of NPL shows that it is successful in reducing the NPL of bank and it show decreasing trend, which is an indication of decrement of NPL in the total assets quality.

Figure 4.5
Trend Analysis of NPL

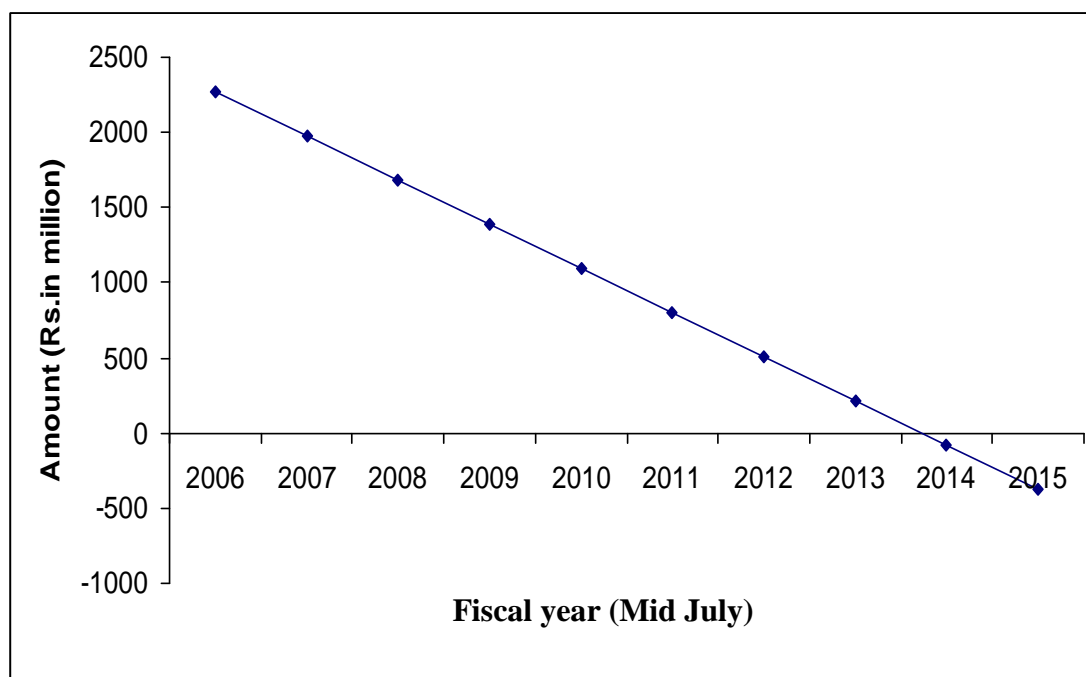


Figure 4.4 represents the trend line of NPL of bank for five consecutive years.

4.2.2 Trend Analysis of Total Loan and Advances

Under this topic, an effort has been made to calculate the trend value of total loan and advances of NBL for five years from the mid July 2006 to mid July 2010 and forecast for next five years from mid July 2011 to 2015. The following table shows the trend value of total loan and advances for ten years from mid July 2006 to mid July 2015.

Table 4.6**Expected Trend Value of Total Loan and Advances (Rs. in Million)**

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$ $y_c = 17291.80 + 3078.90x$
2006	-2	11134.00
2007	-1	14212.90
2008	0	17291.80
2009	1	20370.70
2010	2	23449.60
2011	3	26528.50
2012	4	29607.40
2013	5	32686.30
2014	6	35765.20
2015	7	38844.10

Source: Annex -1.2

Table 4.6 shows that NBL has increasing trend of total loan and advances. The average total loan and advances of NBL is Rs 17291.80 million, which is increasing at the rate of Rs 3078.90 million every year. Total loan and advances is expected to increase from Rs 23449.60 million in mid July 2010 to Rs 38844.10 million in mid July 2015. NBL is suffering from the problems of bad debts, they are concentrating more on recovering bad debts and there was further investment in the form of loan and advances, hence its loan and advances show increasing trend for the study period. But other side, its profitability opportunity will be gain because of increasing trend of loan and advance. Increasing trend of loan and advances shows that it is successful in increment of investment in

loan and advances of bank, which is an indication of increment of net profit.

Figure 4.6
Trend Analysis of Total Loan and Advances

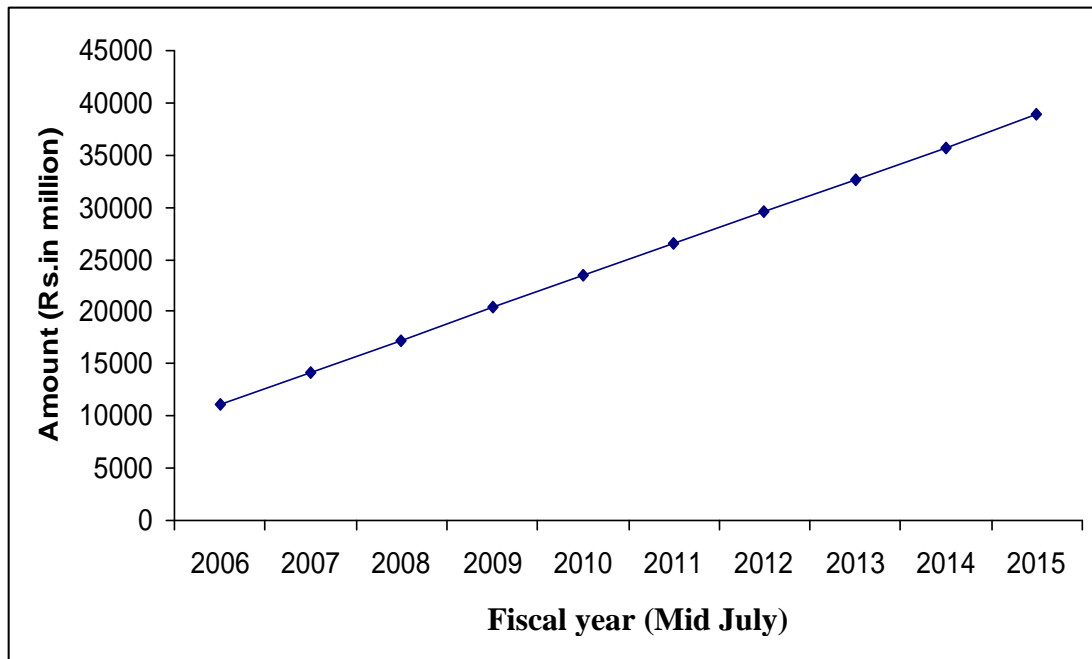


Figure 4.4 represents the trend line of total loan and advances of bank for five consecutive years.

4.2.3 Trend Analysis of Total Assets

Under this topic, an effort has been made to calculate the trend value of total assets of NBL for five years from the mid July 2006 to mid July 2010 and forecast the next five years from mid July 2011 to mid July 2015. The following table 4.7 shows the trend value of total assets for the ten years from mid July 2006 to mid July 2015.

Table 4.7
Trend Value of Total Assets (Rs in Million)

Year Mid July	Deviation from mid July 2008 (x)	$y_e = a + bx$ $y_e = 42244.20 + 2932.40x$
2006	-2	36379.40
2007	-1	39311.80
2008	0	42244.20
2009	1	45176.60
2010	2	48109.00
2011	3	51041.40
2012	4	53973.80
2013	5	56906.20
2014	6	59838.60
2015	7	62771.00

Source: Annex -1.3

Table 4.7 shows that NBL has increasing trend of total assets. The average total asset of NBL is Rs 42244.20 million which is increasing at the rate of Rs 2932.40 million every year. Total assets are expected to increase from 48109.00 million in mid July 2010 to Rs 62771.00 million in mid July 2015. According to increasing rate of total assets, the bank would be success of gaining profit in further year.

NBL is suffering from the problems of bad debts, it has huge amount of NPL in starting of study period. Higher the NPL is decreasing the total assets. Here NPL of NBL has decreasing trend, so total assets are increasing trend for study period. Hence, its total assets shows increasing

trend. Increasing trend of total assets shows that it is successful in increasing good performance of bank. It shows increasing trend total assets, which is an indication of increment of profit.

Figure 4.7
Trend Value of Total Assets (Rs in Million)

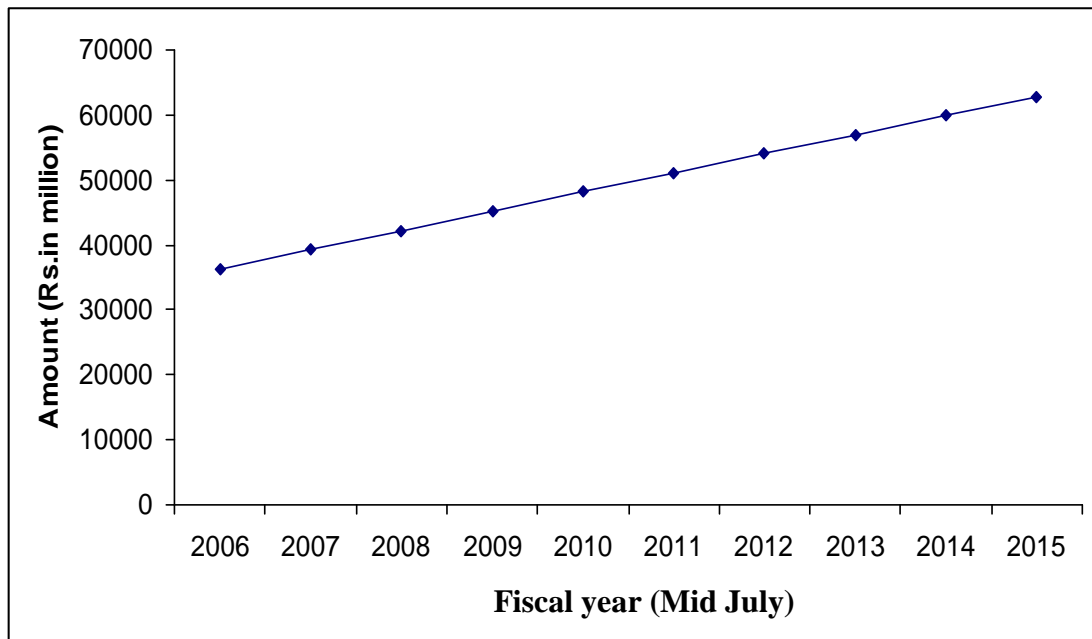


Figure 4.4 represents the trend line of total assets of bank for five consecutive years.

4.2.4 Trend Analysis of Loan Loss Provision

Under this topic, an effort has been made to calculate the trend value of loan loss provision of NBL, for five years from the mid July 2006 to mid July 2010 and forecast for next five year from mid July 2011 to mid July 2015. The following Table- 4.8 shows the trend value of LLP for the ten years from mid July 2006 to 2015.

Table 4.8**Expected Trend Value of Loan Loss Provision (Rs in Million)**

Year Mid July	Deviation from mid July 2008 (x)	$y_e = a + bx$ $y_e = 2273.80 - 306.70x$
2006	-2	2,887.20
2007	-1	2,580.50
2008	0	2,273.80
2009	1	1,967.10
2010	2	1,660.40
2011	3	1,353.70
2012	4	1,047.00
2013	5	740.30
2014	6	433.60
2015	7	126.90

Source: Annex -1.4

Table 4.8 shows that NBL has decreasing trend of loan loss provisioning. The average LLP of NBL is Rs 2273.80 million which is decreasing at the rate of Rs 306.70 every year. LLP is expected to decrease from Rs 1660.40 in mid July 2010 to Rs 126.90 in mid July 2015. NBL is suffering from the problems of bad debts it has huge amount of NPL in starting of study period. Higher the NPL, higher would be the LLP and vice versa. Here LLP has decreasing trend for the study period because of NPL of NBL has decreasing trend. Hence its LLP shows decreasing trend. Decreasing trend of LLP shows that it is successful in reducing the NPL of bank and which is an indication of decrement of NPL in the total assets quality.

Figure 4.8
Trend Analysis of LLP

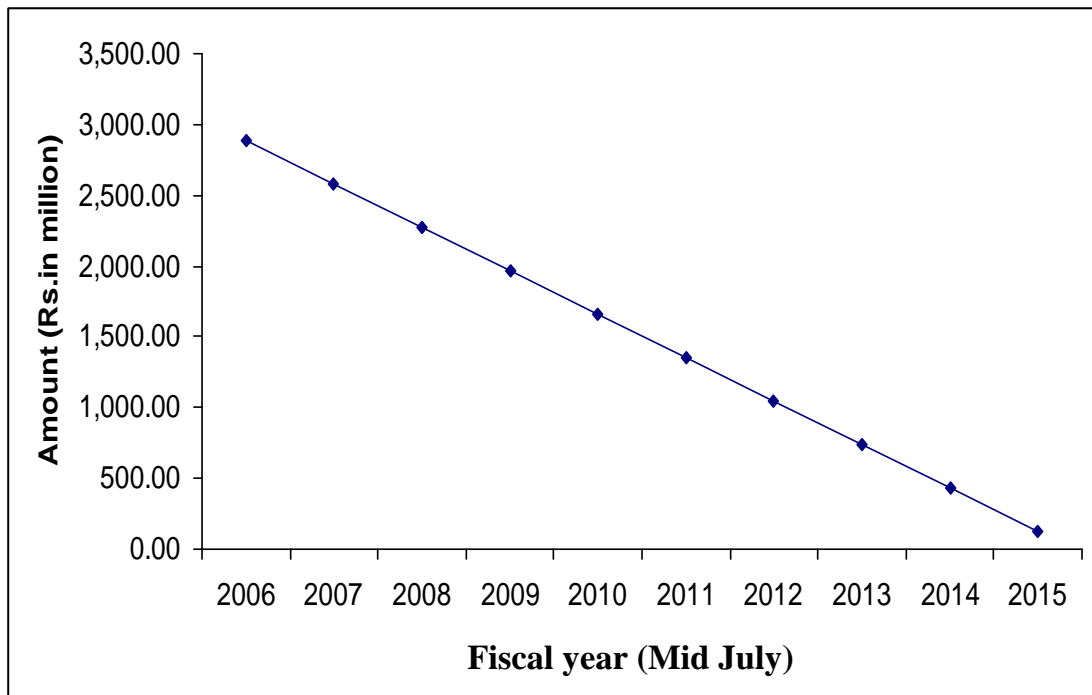


Figure 4.4 represents the trend line of loan loss provision of bank for five consecutive years.

4.2.5 Trend Analysis of Net Profit

Under this topic an effort has been made to calculate the trend value of net profit of NBL for five years from the mid July 2006 to mid July 2010 and forecast for next five years from mid July 2011 to mid July 2015. The following Table 4.9 shows the trend value of net profit for the ten years from mid July 2006 to mid July 2015.

Table 4.9
Trend Analysis of Net Profit

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$ $y_c = 584.80 - 103.30x$
2006	-2	791.40
2007	-1	688.10
2008	0	584.80
2009	1	481.50
2010	2	378.20
2011	3	274.90
2012	4	171.60
2013	5	68.30
2014	6	-35.00
2015	7	-138.30

Source: Annex -1.5

Table 4.9 shows that NBL has decreasing trend of net profit. The average net profit of NBL is Rs 584.80 million, which is decreasing at the rate of Rs 103.30 million every year. Net profits are expected to decrease from Rs 378.30 million in mid July 2010 to Rs -138.30 million in mid July 2015. According to decreasing rate of net profit, the bank would not be success of increasing of bank for further year.

NBL is suffering from the problems of NPL. It has huge amount of NPL in starting of study period. Here, NPL of NBL has decreasing trend for the study period. Lower NPL shows that it is successful in increasing good performance of bank and successful in credit management but

decreasing trend of net profit says that bank has not be success to manage operating expenses.

Figure 4.9
Trend Analysis of Net Profit

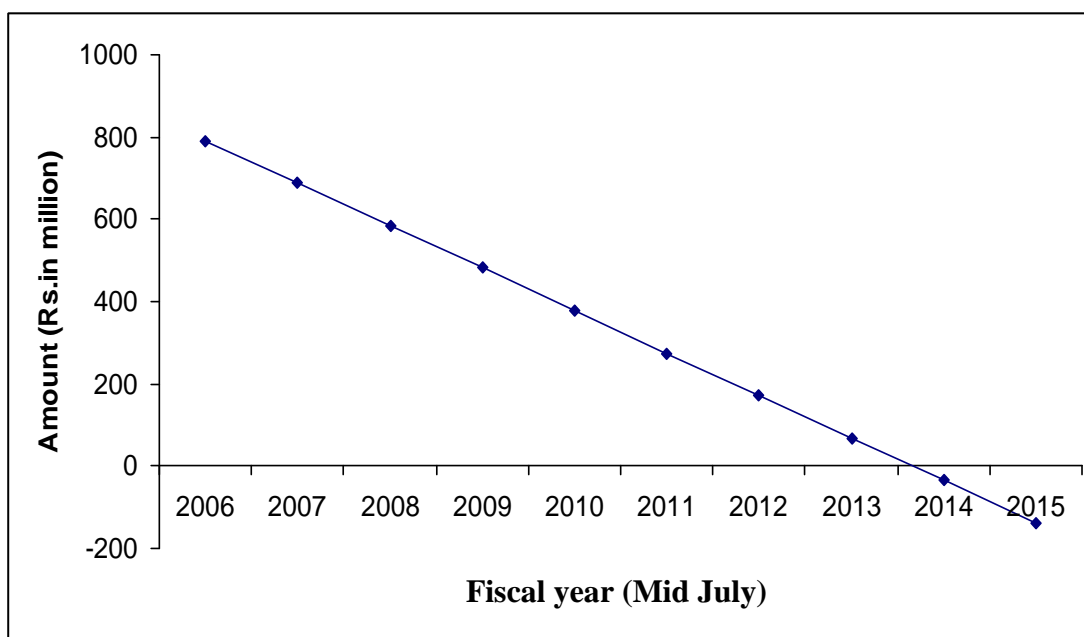


Figure 4.9 represents the trend line of net profit of bank for consecutive year.

4.2.6 Trend Analysis of Total Deposit

Under this topic, an effort has been made to calculate the trend value of deposit of NBL for five years from the mid July 2006 to mid July 2010 and forecast for next five years from mid July 2011 to 2015. The following Table 4.10 shows the trend value of total deposits for the ten years from mid July 2006 to mid July 2015.

Table 4.10**Expected Trend Value of Total Deposit (Rs in million)**

Year Mid July	Deviation from mid July 2008 (x)	$y_e=a+bx$ $y_e=40854.60+1933.20x$
2006	-2	36988.20
2007	-1	38921.40
2008	0	40854.60
2009	1	42787.80
2010	2	44721.00
2011	3	46654.20
2012	4	48587.40
2013	5	50520.60
2014	6	52453.80
2015	7	54387.00

Source: Annex -1.6

Table 4.10 shows that the deposit of NBL has the increasing trend. The average total deposit of NBL is Rs 40854.60 million, which is increasing at the rate of Rs 1933.20 million every year. If the other things remain the same, total deposits are expected to increase from Rs 44721.00 million in mid July 2010 to Rs 54387.00 million in mid July 2015. According to increasing rate of total deposits the bank would be able to attract to its customer. Higher the NPL would be loss the belief of customers. Here, NPL of NBL has decreasing trend and total deposit of bank has increasing trend, so belief of customers increasing. Increasing trend of total deposits shows that it is successful in maintaining believes of

customers and it show increasing trend, which is an indication of increment of total assets.

Figure 4.10
Trend Analysis of Total Deposit

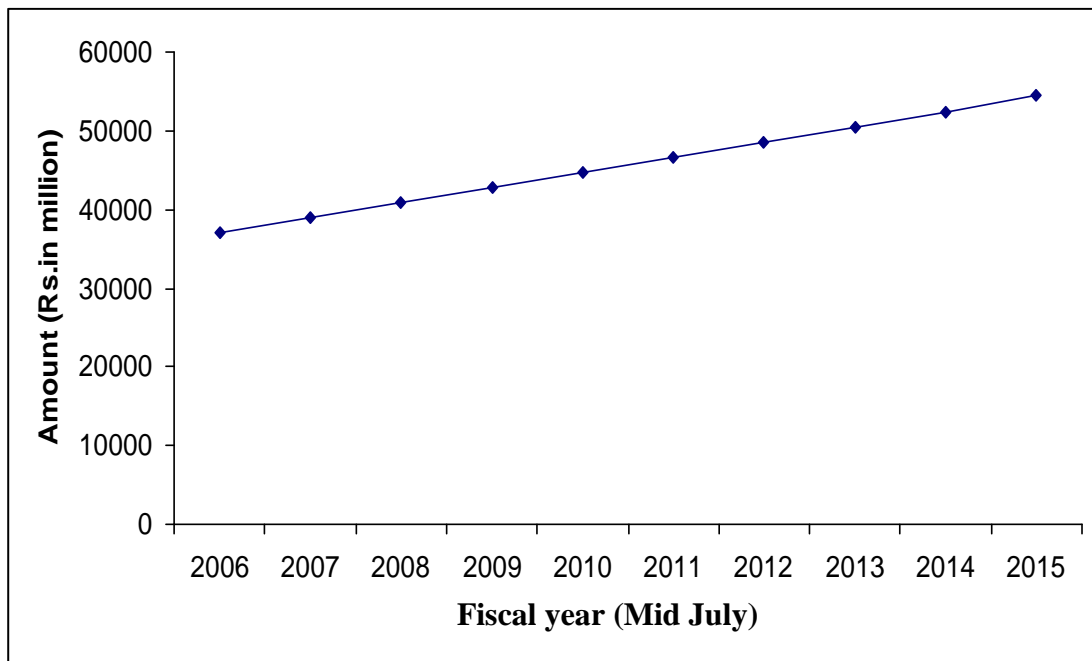


Figure 4.10 represents the trend line of total deposits of bank for consecutive years.

4.3 Correlation Coefficient Analysis

4.3.1 Correlation Coefficient between NPL and Total Loan and Advances

The correlation between NPL and loan and advances describes the relationship between NPL and loan and advances. How a unit changes in loan and advances effect the NPL is exhibited by this correlation. Here

NPL is dependent variable and loan and advances is the independent variable.

Table 4.11
Correlation Coefficient between NPL and Total Loan and Advances

S.N.	Calculation of	Result
1	Correlation coefficient (r)	0.2223
2	Coefficient determinant (r^2)	0.0494
3	Probable error (PE)	0.2868
4	6PE	1.7205
5	Significance / in Significance	Insignificance
6	Relationship	positive

Source: Annex -2.1

Table 4.11 explains the relationship between NPL and loan and advances. Here the NBL have positive correlation between NPL and loan and advances. That means decrement in loan and advances leads to decrement in NPL and vice versa. The correlation coefficient of NBL is 0.2223 and its PE is 0.2868. Since correlation coefficient (r) is not greater than PE, the correlation coefficient is not significant and reliable. In other words the NPL of NBL is not correlated with the total loan and total advances during the study period.

Coefficient of determinants (r) is 0.0494, which indicates that 4.94% of total variation in dependent variable (NPL) has been explained by the independent variable loan and advances and remaining is due to the effect of other factor.

4.3.2 Correlation Coefficient between NPL and Total Assets

The correlation between NPL and total assets describes the relationship between NPL and total assets. How a unit changes in total assets effect the NPL is exhibited by this correlation. Here NPL is dependent variable and total asset is the independent variable.

Table 4.12
Correlation Coefficient between NPL and Total Assets

S.N.	Calculation of	Result
1	Correlation Coefficient (r)	-0.9214
2	Coefficient of Determinant(r^2)	0.8490
3	Probable Error (PE)	0.0455
4	$6PE$	0.2733
5	Significance/ Insignificance	Significance
6	Relationship	Negative

Source: Annex -2.2

Table 4.12 explains the relationship between NPL and Total assets. Here the NBL has negative correlation between NPL and total assets. That means decrement in NPL leads to increment in total assets and vice versa. The correlation coefficient of NBL is -0.9214 and its PE and $6PE$ are 0.0455 and 0.2733. Since correlation coefficient (r) is greater than 6 times the value of PE, the correlation coefficient is significant. In other words, the total NPL of NBL is correlated with the total assets during the study period and the increase in total assets is due to decrement in NPL for the bank.

Coefficient of determinants (r^2) is 0.8490 which indicates that 84.90% of total variation in dependent variable NPL has been explained by the independent variable (Total assets) and remaining is due to the effect of other factors.

4.3.3 Correlation Coefficient between NPL and Total Deposit

The correlation between NPL to total deposit describes the relationship between NPL and total deposits. How a unit change in total deposits effect the NPL is exhibited by this correlation. Here NPL is dependent variables and total deposit is the independent variable.

Table 4.13
Correlation Coefficient between NPL and Total Deposit

S.N.	Calculation of	Result
1	Correlation Coefficient (r)	-0.8440
2	Coefficient of Determinant (r^2)	0.7123
3	Probable Error (PE)	0.0868
4	6PE	0.5207
5	Significant / Insignificant	Significant
6	Relationship	Negative

Source: Annex -2.3

Table 4.13 explains the relationship between NPL and total deposits. Here the NBL has negative correlation between NPL and total deposits. That means decrement in NPL leads to increment in total deposits and vice versa. The correlation coefficient of NBL is -0.8440 and its PE and 6PE are 0.0868 and 0.5207. Since correlation coefficient (r) is greater

than 6 times the value of PE, the correlation coefficient is significant and the increase in total deposits is due to decrement in NPL for the bank.

Coefficient of determinants (r^2) is 0.7123, which indicates that 71.23 % of total variation in dependent variable (NPL) has been explained by the independent variable (Total deposit) and remaining is due to the effect of other factors.

4.3.4 Correlation Coefficient between NPL and LLP

The correlation between NPL and LLP describes the relationship between NPL and LLP. How a unit change in NPL effect the LLP is exhibited by this correlation. Here NPL is independent variable and LLP is the dependent variable. Higher the NPL higher will be the provisioning amount.

Table 4.14
Correlation Coefficient between NPL and LLP

S.N.	Calculation of	Result
1	Correlation Coefficient (r)	0.8468
2	Coefficient of Determinant (r^2)	0.7171
3	Probable Error (PE)	0.0853
4	6PE	0.5118
5	Significant / Insignificant	Significant
6	Relationship	Positive

Source: Annex -2.4

Table 4.14 explains the relationship between NPL and LLP. Here the NBL has positive correlation between NPL and LLP. That means increment in NPL leads to increment in LLP and vice versa. The

correlation coefficient of NBL is 0.8468 and its PE and 6PE are 0.0853 and 0.5118. Since correlation coefficient (r) is greater than 6 times the value of PE, the correlation coefficient is significant and reliable. In other words, the total LLP of NBL is highly correlated with the NPL during the study period and the decrease in LLP of NBL is due to decrease in NPL for the bank and vice versa.

Coefficient of determinant (r^2) is 0.7171, which indicates that 71.71% of total variation in dependent variable (LLP) has been explained by the independent variable NPL and remaining is due to the effect of other factors.

4.3.5 Correlation Coefficient between NPL and Net Profit

The correlation between NPL and net profit describes the relationship between NPL and net profit. How a unit changes in NPL effect the net profit is exhibited by this correlation. Here NPL is independent variable and net profit is the dependent variable.

Table 4.15
Correlation Coefficient between NPL and Net Profit

S.N.	Calculation of	Result
1	Correlation Coefficient (r)	0.0457
2	Coefficient of Determinant (r^2)	0.0021
3	Probable Error (PE)	0.3010
4	6 PE	1.806
5	Significant / Insignificant	Insignificant
6	Relationship	Positive

Source: Annex -2.5

Table 4.15 explain the relationship between NPL and Net Profit. Here the NBL has positive correlation between NPL and Net Profit. That means increment in NPL leads to increment in Net Profit and vice versa. The correlation coefficient of NBL is 0.0457 and its PE and 6PE are 0.3010 and 1.806. Since correlation coefficient (r) is less than 6 times the value of PE, the correlation coefficient is not significant and reliable.

Coefficient of determinant (r^2) is 0.0021, which indicates that 0.21% of total variation in dependent variable (Net Profit) has been explained by the independent variable NPL and remaining is due to the effect of other factors.

4.4 Major Findings of the Study

From the analysis of data, following major findings have been obtained.

Under this analysis, ratio of NPL to total loan and advances, NPL to total assets and NPL to total deposits are not satisfactory level for bank but these ratios are decreasing in each study periods. Higher ratio is not acceptable for bank so the ratio will be lower in coming year. LLP to NPL ratio is high and it is better for the NBL. It will be high ratio because it is the treatment of suffering of NPL problems. Major findings of these ratios are as follows:

-) Ratio of NPL to total loan and advances is higher than international standard till 2008 mid July. The ratio is 4.98 % in mid July 2010. The ratio is below the standard level but not satisfactory level.
-) Ratio of NPL to total assets is not satisfactory level on banking transaction in the study period. Decreasing trend will be better for NBL.

-) Ratio to NPL to total deposits also is not satisfactory level but it is decreasing in each consecutive years. Decrease the ratio repayment capacity of bank so the lower ratio is better for bank.
-) LLP to NPL ratio is higher and it is increasing for recent years. This is the safeguard of bank for NPL problems. Higher ratio is better to safe from NPL problems.
-) Trend Analysis of NPL, LLP and Net profit are decreasing in each consecutive year respectively. Decreasing trends of NPL and LLP are better for banking transaction. They are helpful to increase the net profit of bank and it is using for investment. It is the best performance of banking policy for credit management. But decreasing trends of Net profit is too much bad signal while NPL and LLP are decreasing. It seems that the bank is facing high operational loss. If the bank does not try to reduce the operational loss, the bank will be failure in near future.
-) Trend of total loan and advances is increasing in each year respectively. It is good for banking sector. It will be increasing and investing this fund in productive sector of bank.
-) Trend of total assets and total deposits are increasing in each consecutive year respectively. Expected value of each trend will be acceptable and suitable for banks. Increasing trend of these is better result of banks managerial efficient.
-) Correlation coefficient between NPL and total loan and advances is 0.2223, which is positive correlation. That means decrement in loan and advances leads to decrement in NPL and vice versa. It is less than 6 times the value of its PE and even less than 6PE. The correlation coefficient between NPL and total loan and advances is

insignificant. Coefficient of determinant is 0.0494, which indicates that 4.94% of total variation in dependent variable (Total loan and advances) has been explained by the independent variable (NPL) and remaining is due to the effect of other factors.

-) Correlation coefficient between NPL and total assets is -0.9214, which is highly negative correlation. Here PE and 6PE are 0.0455 and 0.2733 since correlation coefficient is greater than 6 times the value of 6PE, the correlation coefficient is significant.
-) Correlation coefficient between NPL and total deposits is -0.8440, which is negative correlation. Here PE and 6PE are 0.0868 and 0.5207 since correlation coefficient is greater than 6 times the value of 6PE, the correlation coefficient is significant.
-) Correlation coefficient between NPL and LLP is 0.8468, which is highly positive correlation. That means increment in NPL leads to increment in LLP and vice versa. Coefficient of determinant is 0.7171, which indicates that 71.71% of total variation in dependent variable (LLP) has been explained by the independent variable (NPL) and remaining is due to the effect of other factor.
-) Correlation coefficient between NPL and net profit is 0.0457, which is positive correlation. It is less than 6 times the value of its PE and even less than PE. The correlation coefficient between NPL and net profit is insignificant. Coefficient of determinant is 0.0021, which indicates that 0.21% of total variation in dependent variable (Net Profit) has been explained by the independent variable (NPL) and remaining is due to the effect of other factors.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Banks deal in the process of channel the available resources to the needy sector causing over all economic development. A commercial bank means the bank, which deals with exchanging currency, accepting deposits, providing loans and doing other commercial transactions. Therefore one to the main functions of commercial bank is given loan. There is not so long history of commercial bank in Nepal. NBL was established on 30th Kartik 1994 B.S. It is that commercial bank which has the largest network in the country. Now there are 31 commercial banks have been extending their service in different part of the country.

This study is aimed at studying the NPL and its impacts in commercial banks. For this purpose descriptive and analytical research design was adopted. Out of the total population of 31 commercial banks, NBL was taken as a sample using judgmental sampling method because of due to highest proportion of NPL to total loan and advances. NBL is suffering of problem of NPL than joint venture private sector banks. Only secondary data has been used in the study. Secondary data has been collected through annual reports, newspapers and other publication. The data collected from various sources are recorded systematically and presented in appropriate form of table and chart and appropriate mathematical, statistical, financial and graphical tools have been applied to analyze the data. The data of five consecutive year of the NBL has been analyzed to meet the objective of the study.

Trend of NPL, LLP and net profit, are decreasing and trend of total deposit, total assets and total loan and advances of NBL for the consecutive years are increasing trend. The ratios of NPL to total loan and advances, NPL to total deposits and NPL to total assets are decreasing of NBL for consecutive years which are a good symbol for bank except decreasing trend of net profit. The decreasing trend of net profit clears that the bank's operational activities are poorly managed. The bank should give immediately attention on it otherwise future will be black night.

5.2 Conclusion

As a business institute, a bank aims at making huge profit. Since loan and advances are more profitable than any 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 loan and advances. So it is very important to be reminded that must of the banks failures in the world due to the shrinkage in the value of loan and advance. Hence loan is known is risky asset, constitutes primary sources of income to the bank. It means interest earned from loan and advances occupy major space in income statement of bank. Performing loan has multiple benefits while NPL erodes even existing capital. The success of any bank is depends upon the quality of loan, i.e. amount of performing loan. Performing loan are those loans that repay principle and interest to the bank from the cash flow it generates. Risk of non-repayment of loan is known as credit risk or default risks.

Nepalese banking sector has been facing the problem of swelling NPL. NPL are those loans, which neither pay interest nor repay principle from the cash flow it generates. Higher the NPL indicates the poor financial

position and poor assets management. NPL is directly related with the loan and advances. The level of NPL in sampled bank is not satisfactory level. Many other banks have also higher NPL than international standard. Nepalese commercial banks are suffering from NPL problem. It is directly impact. Main cause of NPL is the weaknesses of credit management and other. The decreasing trend remain continue in coming days, the situation will be satisfactory. Level of NPL of NBL has been gradually decreasing every year so we can say that credit management is improving of this bank after foreigner handle the management of the bank. There are many factors, which are effecting to the increment level of NPL. There are two type of factor, one is internal factor and other is external factor. The banks will microanalysis of these factor and take the action immediately. It has been found that bank has high level of NPL that makes higher provision to maintain this provision. Bank interest higher amount in the income generally assets i.e. loan and advances it is loss.

However, the bank's credit management is in good condition. Bank has giving emphasis on loan restructuring of bad loan as well, and main focus of NBL is recovering the bad loan using different of strategies. Level of NPL is decreasing gradually with the implementation of comprehensive financial sector reform program. But existing level is still alarming in order to restore the financial sustainability in the system.

Main causes of increment of NPL are following:

-) Weaknesses of credit management of bank
-) Over valuation of collateral
-) Lack of good project evaluation

-) Lack of implementation of rules and regulations of borrower
-) Political environment
-) Weaknesses of employees

5.3 Recommendations

High level of NPL or NPA not only decreasing the profitability of the banks but also affects the entire financial as well as operational health of the organization. If the NPL does not control immediately, it will be proved it as a cause for the banks in future. Therefore, following are some of the recommendations, which will help to reduce the level of NPL of Nepalese commercial banks.

) Improvement of credit management:

Main cause of increment of level of NPL is the weakness of credit management of bank. Therefore, the bank should improvement the credit management or bank.

) Financial analysis of Loan Proposal:

Lack of proper financial analysis of the borrower and his project 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.

) Microanalysis and control the factors:

There are many factors which raise the NPL, so bank should microanalysis of these factors and control them.

) To take the adequate collateral:

Banks want to ensure that their loan is repaid even in case of default. To protect banks from such happenings, the banks take collateral from the borrower so that in the event of default this

collateral is disposed for recovery of loan. Therefore banks should take enough collateral so that the bank at least can able to recover its principle and interest amount in case of being unable to repay by the borrower.

) **Improvement of bank:**

Management inefficiency is one of other major cause behind high level of NPA of Nepalese commercial banks. Therefore, all banks should provide necessary training regarding loan management to the managers and staffs who are involving in managing their lending experts within or outside the country whatever possible. Banks should be done the analysis of projects of borrower, suitable valuation of collateral, adopt the good lending policy, collecting related information about the borrowers.

) **To take the action for recovery of bad loan:**

Those banks having high level of NPL should take immediate action toward recovering their bad loan as possible as soon. In case of default to repay the loan by borrower, the bank, should dispose off the collateral taken from the borrower and recover principle and interest amount.

) **Maintain the loan loss provision:**

To decrease the NPL, loan loss provision will be managed so all Nepalese commercial banks are recommended to maintain loan loss provision in accordance to the NRB's directives.

) **Corporate structure of the banks:**

Corporate structure of the banks play key role in the effective loan management. Being loan as risky asset, effort should be made to have proper control in the every step of loan management. Single

person or a single department cannot do anything. There should be involvement of at least two officials or two departments.

) **Investment in productive sector:**

Sample bank has an increasing trend of total loan and advances i.e. each year. Entire economy is largely dependent upon the proper execution of lending function by commercial banks. Low level of lending means low level of investment resulting to low level of productivity which may ultimately affect negatively o the national economy. Loans and advances on one hand is the highest income generating asset of bank and on the other hand it also helps to upgrade the economic health of country. Hence the banks are recommended to increase its investments in productive sector in the form of loan and advances.

) **Collecting related information about the borrowers:**

It is often said that prevention is better than cure. Hence it is recommended for all the banks to take preventive measures before the loan goes to default. All the banks are recommended to have and information system together all the possible information and activities about its borrowers so that necessary precautions can be taken in time.

) **Co- operative with NRB and CIB:**

The regulation regarding loan classification and provisioning is stringent and tighter than the previous hence NRB should not only impose directives but also create supportive environment for the commercial banks. NRB is recommended to strengthen Credit Information Bureau (CIB) so that banks can get required credit information about the borrowers on time. This would help in reducing NPL.

) Improvement of operational management:

If the operational activities are not managed smoothly, increasing trend of loan and advances, deposits, assets and decreasing trend of NPL and LLP does not attribute acceptable figure of net profit .So appropriate and healthy operation is heart of successful way of future.

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Annex-1

1.1 Trend Analysis

Trend Analysis is one of the statistical tools which is used to determine the improvement or deterioration of its financial situation. Trend analysis informs about the expected future values of various variables. The Least square method has been adopted to measure the trend behaviors of the selected Bank. This method is widely used in practices. The formula of least square method for the straight line is represented by the following formula.

$$Y_c = a + bX$$

Where,

Y_c = Trend Values

a = Y intercept or the computed trend figure of the Y variable, when $X = 0$

b = Slope of the trend line of the amount of change in Y variable that is associated with change in 1 unit in X variable.

X = Variable that represent time i.e. time variable

The value of the constants a and b can be determined by solving the following two normal equations.

$$\sum Y = Na + b \sum X \dots\dots\dots(i)$$

$$\sum XY = a \sum X + b \sum X^2 \dots\dots\dots(ii)$$

Where, N = number of years

But for simplification, if the time variable is measured as a deviation from its mean i.e. mid-point is taken as the origin, the negative value in the first half of the series balance out the positive values in the second half so that ($\sum X = 0$).

The values of constant a and b can easily be determined by using following formula.

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

1.1.1 Calculation of Determinants for Expected Trend Value of NPL.

Year Mid July	NPL (Y)	Deviation from mid July 2008 (x)	x^2	xy
2006	2262	-2	4	-4524
2007	1856	-1	1	-1856
2008	2067	0	0	0
2009	967	1	1	967
2010	1242	2	4	2484
Total	8394	0	10	-2929

Where,

$$\sum y = 8394, \quad \sum x^2 = 10 \quad \sum xy = -2929, \quad \sum x = 0$$

When $\sum x = 0$, from the two normal equations,

$$a = \frac{\sum Y}{n} = \frac{8394}{5} = 1678.80$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{-2929}{10} = -292.90$$

Thus,

Average total NPL (a) =1678.80

Rate of Change of total NPL (b) =-292.90

Hence, the equation of straight line trend is $y_e=a+bx$

$$y_e=1678.80-292.90x$$

1.1.2 Calculation of Expected Trend Value of NPL.

Year Mid July	Deviation from mid July 2008 (x)	$y_e=a+bx$ $y_e=1678.80-292.90x$
2006	-2	2,264.60
2007	-1	1,971.70
2008	0	1,678.80
2009	1	1,385.90
2010	2	1,093.00
2011	3	800.10
2012	4	507.20
2013	5	214.30
2014	6	(78.60)
2015	7	(371.50)

1.2.1 Calculation of Determinants for Expected Trend Value of Total Loan & Advances.

Year Mid July	Loan & Advances (y)	Deviation from mid July 2008 (x)	x^2	xy
2006	12442	-2	4	-24884
2007	13757	-1	1	-13757

2008	15765	0	0	0
2009	19560	1	1	19560
2010	24935	2	4	49870
Total	86459	0	10	30789

Where,

$$\phi y = 86459 \quad \phi x^2 = 10 \quad \phi xy = 30789 \quad , \quad \phi x = 0$$

When $\phi x = 0$, from the two normal equations,

$$a = \frac{\sum Y}{n} = \frac{86459}{5} = 17291.80$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{30789}{10} = 3078.90$$

Thus,

Average total Loan & Advances (a) = 17291.80

Rate of Change of total Loan & Advances (b) = 3078.90

Hence, the equation of straight line trend is $y_c = a + bx$

$$y_c = 17291.80 + 3078.90x$$

1.2.2 Calculation of Expected Trend Value of Loan & Advances.

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$ $y_c = 17291.80 + 3078.90x$
2006	-2	11134.00
2007	-1	14212.90
2008	0	17291.80
2009	1	20370.70
2010	2	23449.60
2011	3	26528.50
2012	4	29607.40

2013	5	32686.30
2014	6	35765.20
2015	7	38844.10

1.3.1 Calculation of Determinants for Expected Trend Value of Total Assets.

Year Mid July	Total Asset	Deviation from mid July 2008 (x)	x ²	xy
2006	35919	-2	4	- 71838.00
2007	39259	-1	1	-39259.00
2008	42053	0	0	-
2009	47559	1	1	47559.00
2010	46431	2	4	92862.00
Total	211221	0	10	29324.00

Where,

$$\phi y = 211221, \phi x^2 = 10, \phi xy = 29324, \phi x = 0$$

When $\phi x = 0$, from the two normal equations,

$$a = \frac{\sum y}{n} = \frac{211221}{5} = 42244.20$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{29324}{10} = 2932.40$$

Thus,

Average total Assets (a) = 42244.20

Rate of Change of total Assets (b) = 2932.40

Hence, the equation of straight line trend is $y_c = a + bx$

$$y_c = 42244.20 + 2932.40x$$

1.3.2 Calculation of Expected Trend Value of Total Assets.

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$ $y_c = 42244.20 + 2932.40x$
2006	-2	36379.40
2007	-1	39311.80
2008	0	42244.20
2009	1	45176.60
2010	2	48109.00
2011	3	51041.40
2012	4	53973.80
2013	5	56906.20
2014	6	59838.60
2015	7	62771.00

1.4.1 Calculation of Determinants for Expected Trend Value of Loan Loss Provision.

Year Mid July	Loan Loss Provision	Deviation from mid July 2008 (x)	x^2	xy
2006	2685	-2	4	-5370.00
2007	2698	-1	1	-2698.00
2008	2513	0	0	-
2009	1945	1	1	1945.00
2010	1528	2	4	3056.00
Total	11369	0	10	-3067.00

Where,

$$\phi y = 11369, \phi x^2 = 10, \phi xy = -3067, \phi x = 0$$

When $\phi x = 0$, from the two normal equations,

$$a = \frac{\sum y}{n} = \frac{11369}{5} = 2273.80$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{-3067}{10} = -306.70$$

Thus,

Average total Loan Loss Provision (a) = 2273.80

Rate of Change of total Loan Loss Provision (b) = -306.70

Hence, the equation of straight line trend is $y_c = a + bx$

$$y_c = 2273.80 - 306.70x$$

1.4.2 Calculation of Expected Trend Value of Loan Loss Provision.

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$ $y_c = 2273.80 - 306.70x$
2006	-2	2887.20
2007	-1	2580.50
2008	0	2273.80
2009	1	1967.10
2010	2	1660.40
2011	3	1353.70
2012	4	1047.00
2013	5	740.30
2014	6	433.60
2015	7	126.90

1.5.1 Calculation of Determinants for Expected Trend Value of Net Profit

Year Mid July	Net Profit	Deviation from mid July 2008 (x)	x^2	xy
2006	1207	-2	4	-2414.00
2007	227	-1	1	-227.00
2008	239	0	0	0.00
2009	894	1	1	894.00
2010	357	2	4	714.00

Total	2924	0	10	-1033.00
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Where,

$$\phi_y=2924, \phi_x^2=10, \phi_{xy}= -1033, \phi_x=0$$

When $\phi_x=0$, from the two normal equations,

$$a = \frac{\sum Y}{n} = \frac{2924}{5} = 584.80$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{-1033}{10} = -103.30$$

Thus,

Average total Net Profit (a) =584.80

Rate of Change of total Net Profit (b) =-103.30

Hence, the equation of straight line trend is $y_c = a+bx$

$$y_c = 584.80 - 103.30x$$

1.5.2 Calculation of Expected Trend Value of Net Profit.

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a+bx$ $y_c = 584.80 - 103.30x$
2006	-2	791.40
2007	-1	688.10
2008	0	584.80
2009	1	481.50
2010	2	378.20
2011	3	274.90
2012	4	171.60
2013	5	68.30
2014	6	-35.00
2015	7	-138.30

1.6.1 Calculation of Determinants for Expected Trend Value of Total Deposits.

Year Mid July	Total deposit	Deviation from mid July 2008 (x)	x ²	xy
2006	35830	-2	4	-71660.00
2007	39014	-1	1	-39014.00
2008	41829	0	0	-
2009	45194	1	1	45194.00
2010	42406	2	4	84812.00
Total	204273	0	10	19332.00

Where,

$$\phi y = 204273, \phi x^2 = 10, \phi xy = 19332, \phi x = 0$$

When $\phi x = 0$, from the two normal equations,

$$a = \frac{\sum Y}{n} = \frac{204273}{5} = 40854.60$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{19332}{10} = 1933.20$$

Thus,

Average total Deposits (a) = 40854.60

Rate of Change of total Deposits (b) = 1933.20

Hence, the equation of straight line trend is $y_c = a + bx$

$$y_c = 40854.60 + 1933.20x$$

1.6.2 Calculation of Expected Trend Value of Total Deposits.

Year Mid July	Deviation from mid July 2008 (x)	$y_c = a + bx$
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		$y_c = 40854.60 + 1933.20x$
2006	-2	36988.20
2007	-1	38921.40
2008	0	40854.60
2009	1	42787.80
2010	2	44721.00
2011	3	46654.20
2012	4	48587.40
2013	5	50520.60
2014	6	52453.80
2015	7	54387.00

Annex-2

CORRELATION ANALYSIS

Kearl Pearson's correlation coefficient is calculated by using following formula:

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

Properties of correlation coefficient

1. Correlation coefficient is a pure number that is independent of the units of measurement.
2. Correlation coefficient is independent of change of origin and scale.
3. Correlation coefficient lies between -1 to +1, i.e. $-1 \leq r \leq +1$.
4. Correlation coefficient is the geometric mean of two regression coefficient.

Interpretation of correlation coefficient

S.N.	Degree	Direction	
		Positive	Negative
1	Perfect	+1	-1
2	Significant (very high)	+0.75 to +1	-0.75 to -1
3	High	+0.5 to 0.75	-0.5 to -0.75
4	Low	+0.25 to 0.50	-0.25 to -0.50
5	Insignificant (very low)	0 to 0.25	0 to -0.25
6	Absent	0	0

Probable error:

The reliability of the correlation coefficient is judged with the help of probable error (P.E). It is calculated as follows:

$$\text{Probable Error (P.E.)} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

Where, r = correlation coefficient

N= No. of pairs of observation.

If $r > 6 \text{ P.E}$, then the correlation coefficient is significant and reliable.

If $r < \text{P.E}$, then the correlation coefficient is insignificant and there is no evidence of correlation.

2.1.1 Calculation of Correlation Coefficient between NPL & Total Loan & Advances:

Year Mid July	NPL (x)	Total Loan & Advances(y)	xy	x ²	y ²
2006	2262	12442	28143804	5116644	154803364
2007	1856	13757	25532992	3444736	189255049
2008	2067	15765	32586255	4272489	248535225
2009	967	19560	18914520	935089	382593600
2010	1242	24935	30969270	1542564	621754225
Total	8394	86459	136146841	15311522	1596941463

Where,

$$n=5 \quad \phi_x=8394, \quad \phi_y=86459, \quad \phi_{xy}=136146841, \quad \phi_{x^2}=15311522, \\ \phi_{y^2}=1596941463$$

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

$$= \frac{5 \times 136146841 - 8394 \times 86459}{\sqrt{5 \times 15311522 - (8394)^2} \sqrt{5 \times 1596941463 - (86459)^2}}$$

$$= 0.2223$$

2.1.2 Calculation of Coefficient of Determination (r^2)

$$= (0.2223)^2 = 0.0494$$

2.1.3. A Calculation of Probable error (PE),

$$= \frac{1-r^2}{\sqrt{n}} |0.6745, = \frac{1-0.0494}{\sqrt{5}} |0.6745, = 0.2868$$

2.1.3. B Calculation of 6PE,

$$= 6 |PE, = 6 |0.2868, = 1.7205$$

2.2.1 Calculation of Correlation Coefficient between NPL & Total Assets:

Year Mid July	NPL (x)	Total Assets (y)	xy	x^2	y^2
2006	2262	35919	81248778	5116644	1290174561
2007	1856	39259	72864704	3444736	1541269081
2008	2067	42053	86923551	4272489	1768454809
2009	967	47559	45989553	935089	2261858481
2010	1242	46431	57667302	1542564	2155837761
Total	8394	211221	344693888	15311522	9017594693

Where,

$$n=5, \quad \phi x=8394, \quad \phi y=211221, \quad \phi xy=344693888, \quad \phi x^2=15311522, \\ \phi y^2=9017594693$$

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

$$= \frac{5 \times 344693888 - 8394 \times 211221}{\sqrt{5 \times 15311522 - (8394)^2} \sqrt{5 \times 9017594693 - (211221)^2}}$$

$$= -0.9214$$

2.2.2 Calculation of Coefficient of Determination (r^2)

$$= (-0.9214)^2 = 0.8490$$

2.2.3. A Calculation of Probable error (PE),

$$= \frac{1-r^2}{\sqrt{n}} |0.6745, = \frac{1-0.8490}{\sqrt{5}} |0.6745, = 0.0455$$

2.2.3. B Calculation of 6PE,

$$= 6 |PE, = 6 |0.0868, = 0.2733$$

2.3.1 Calculation of Correlation Coefficient between NPL & Total Deposits:

Year Mid July	NPL (x)	Total Deposits (y)	xy	x^2	y^2
2006	2262	35830	81047460	5116644	1283788900
2007	1856	39014	72409984	3444736	1522092196
2008	2067	41829	86460543	4272489	1749665241
2009	967	45194	43702598	935089	2042497636
2010	1242	42406	52668252	1542564	1798268836
Total	8394	204273	336288837	15311522	8396312809

Where,

$$n=5, \quad \phi_x=8394, \quad \phi_y=204273, \quad \phi_{xy}=336288837, \quad \phi_{x^2}=15311522, \\ \phi_{y^2}=8396312809$$

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

$$= \frac{5 \times 336288837 - 8394 \times 204273}{\sqrt{5 \times 15311522 - (8394)^2} \sqrt{5 \times 8396312809 - (204273)^2}}$$

$$= -0.8440$$

2.3.2 Calculation of Coefficient of Determination (r^2)

$$= (-0.8440)^2 = 0.7123$$

2.3.3. A Calculation of Probable error (PE),

$$= \frac{1-r^2}{\sqrt{n}} |0.6745, = \frac{1-0.7123}{\sqrt{5}} |0.6745, = 0.0868$$

2.3.3. B Calculation of 6PE,

$$= 6 |PE, = 6 |0.0868, = 0.5207$$

2.4.1 Calculation of Correlation Coefficient between NPL & LLP:

Year Mid July	NPL (x)	LLP (y)	xy	x ²	y ²
2006	2262	2685	6073470	5116644	7209225
2007	1856	2698	5007488	344,736	7279204
2008	2067	2513	5194371	427,489	6315169
2009	967	1945	1880815	935089	3783025
2010	1242	1528	1897776	154,564	2334784
Total	8394	11369	20053920	15311522	26921407

Where,

$$n=5 \quad \phi_x=8394, \quad \phi_y=11369, \quad \phi_{xy}=20053920, \quad \phi_x^2=15311522, \\ \phi_y^2=26921407$$

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

$$= \frac{5 \times 20053920 - 8394 \times 11369}{\sqrt{5 \times 15311522 - (8394)^2} \sqrt{5 \times 26921407 - (11369)^2}}$$

$$= 0.8468$$

2.4.2 Calculation of Coefficient of Determination (r^2)

$$= (0.8468)^2 = 0.7171$$

2.4.3. A Calculation of Probable error (PE),

$$= \frac{1-r^2}{\sqrt{n}} |0.6745, = \frac{1-0.7171}{\sqrt{5}} |0.6745, = 0.0853$$

2.4.3. B Calculation of 6PE,

$$= 6 |PE, = 6 |0.0853, = 0.5118$$

2.5.1 Calculation of Correlation Coefficient between NPL & Net Profit:

Year Mid July	NPL (x)	Net Profit (y)	xy	x ²	y ²
2006	2262	1207	2730234	5116644	1456849
2007	1856	227	421312	3444736	51529
2008	2067	239	494013	4272489	57121
2009	967	894	864498	935089	799236
2010	1242	357	443394	1542564	127449
Total	8394	2924	4953451	15311522	2492184

Where,

$$n=5, \phi_x=8394, \phi_y=2924, \phi_{xy}=4953451, \phi_{x^2}=15311522, \phi_{y^2}=2492184$$

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

$$= \frac{5 \times 4953451 - 8394 \times 2924}{\sqrt{5 \times 15311522 - (8394)^2} \sqrt{5 \times 2492184 - (2924)^2}}$$

$$= 0.0457$$

2.5.2 Calculation of Coefficient of Determination (r^2)

$$= (0.0457)^2 = 0.0021$$

2.5.3. A Calculation of Probable error (PE),

$$= \frac{1-r^2}{\sqrt{n}} |0.6745, = \frac{1-0.0021}{\sqrt{5}} |0.6745, = 0.3010$$

2.5.3. B Calculation of 6PE,

$$= 6 |PE, = 6 |0.3010, = 1.806$$