

CHAPTER- I

INTRODUCTION

1.1 Background of the Study

Financial sector of any economy plays a vital role in its development and are currently viewed as catalyst in the process economic growth of a country. This sector is the backbone of developing country like Nepal. This sector has been gradually developed from the time of economic liberalization in Nepal. There is no doubt that a sound financial system will certainly boost the pace of development.

Financial sector of Nepalese economy is composed of two sector i.e., banking sector and non- Banking sector. Banking sector means which purely provides Banking facilities like different range of short term and long term loans, collection of deposits (short term /long term), remittance service, LC, etc where as Non Banking sector means which mainly does activities of deposits and loans and advances on narrow basis. Banking sector of Nepal comprises of Nepal Rastra Bank, commercial Banks & development Banks. Nepal Rastra Bank is apex body of all financial institutions of Nepal. Banking sector is exposed to number of risk like interest rate risk, liquidity risk, credit risk, borrower's risk etc. Such risks in excessive form had led many Banks to go Bankrupt in a number of countries.

One of the most critical risks is the borrower's risk – the risk of non-payment of the disbursed loans and advances. Failure to collect money lent may sometimes results in

the Bank's inability to make repayment of the money to the depositors and return to the shareholders and stakeholders. The risk involved is so high that it can bring Bank to a verge of Bankruptcy. The Bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society they are serving. If a bank behaves irresponsible, the cost borne by the economy will be enormous.

Due to their central role in the economy, government and central bank tries their best to rescue Banks from such situations. Hence to protect the Banks from such situation and protect depositors and shareholders money, central Bank issues various directives and guidelines from time to time with modifications and amendments for the sound regulation of the Banking system. All the Banks have to abide by the rules and regulation issued by the central Bank. Of the many directives, there are ten directives relating to the Banking prudential regulation/norms to be followed by the Banks.

Financial institutions in Nepal are growing in an unexpected manner and no doubt they will compete for each other's market share and provide cut throat competition in the market. In this scenario default rate is automatically going to increase either intentionally or unintentionally. Therefore it is one of greatest concern for financial intermediaries to handle such issue. This default is technically known as non performing Assets (NPA). This default may be on principal, interest or principal and interest. It is normally not received on maturity period.

Non Performing Asset means a loan or an account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset, in

accordance with the directions or guidelines relating to asset classification. According to the International Monetary Fund, a non-performing asset is any obligation or loan in which interest and principal payments are more than 90 days overdue, more than 90 days' worth of interest has been refinanced, capitalized, or delayed by agreement, or if payments are less than 90 days overdue, but payments are no longer anticipated. Another definition of a non-performing asset is a loan in which the maturity date has passed, but at least part of the loan is still outstanding. The specific definition is dependent upon the loan's particular terms.

Earlier assets were declared as NPA after completion of the period for the payment of total amount of loan and 30 days grace. In present scenario assets are declared as NPA if none of the installment is paid till 90 days i.e. three months in respect of a term loan. With effect from March 31, 2004, a non-performing asset (NPA) is a loan or an advance where; interest and /or installment of principal remain overdue for a period of more than 90 days. (Madhusundar Shrestha. 2006:254)

Non Performing assets can be defined as those assets that cannot be used productively. In other words, NPA is outdated loan, and bad and doubtful debts. NPA could wreck bank's profitability both through a loss of interest income and write off the principle loan amount. To start with the performance in terms of profitability is a benchmark for any business enterprises including the banking industry. However, increasing non-profit assets have the direct impact on bank's profitability, as legally banks are not

allowed to book income on such accounts and at the same time since banks are forced to make provision on such assets.

Performing assets are those that repay principle and interest to the banks. These assets constitute the primary source of income of banks. Banks are willing to lend as much as possible. But they have to be careful about the safety of such loans. Loans are risky assets, even though banks invest most of their resources in granting loans. An asset is classified as non-performing assets, if the borrower does not pay dues in the form of principle and interest. If any credit facilities or loan granted by bank to a borrower became non-performing. Then the bank will have to treat all the credit facilities or loan granted to that borrower as non-performing. Non-performing assets can be non-performing loan, non banking assets, remaining non-performing loan, suspend interest, unutilized assets etc.

Loans and advance dominate the assets side of the balance sheet of any bank. Similarly, earning from such loans and advances occupy a major space in income statement of the bank. However, it is very important to be remembered that most of the bank failures in the world due to shrinkage on the value of loan and advance. Hence, loan is known as risky assets. Risk of non-repayment of loan is known as credit risk or default risk. Performing loans have multiple benefits to the society while non-performing loan erodes even existing capital. (Dahal and Dahal, 2002:114)

“A loan is nonperforming when payments of interest and principal are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full” (IMF: Feb 12, 2008).

1.1.1 Brief Profile of the Selected Banks

Among the 29 commercial banks, three banks have been selected for study purpose which are Nabil Bank Ltd., Nepal Investment Bank Ltd. and Nepal Bangladesh Bank Ltd.

Nabil Bank Limited (NABIL)

Nabil Bank Limited formerly named as Nepal Arab Bank Limited was established on July 12th 1984 under a technical service agreement with Dubai Bank Limited, Dubai, which was later merged with Emirates Bank, UAE. The share of Emirates Bank sold its share to “National Bank Ltd., Bangladesh” which was again transferred into “NB International, Ireland. It is the pioneer joint venture Bank of Nepal.

Share Holding Pattern

NB International Limited, Ireland	50%
Local Financial Institution	20%
Nepalese Public	30%

NABIL is amongst the most successful Bank in Nepal registering strong growth. The initial capital of Rs 30 million has grown to Rs 2588 million (core capital and supplementary capital) as of 2009. NABIL launched its operation with the marketing

concept. NABIL has also been a pioneer in introducing modern Banking and innovative products in Nepal like working capital & Project financing ,trade finance, priority & deprived sector (financing or refinancing), mortgage loan, personal lending, remittance products & card products (Credit and debit card) etc. NABIL is the Banker to a multitude of International Aid Agencies, Non-Government Organization, Embassies and Consultants in the country. NABIL has been providing wide range of banking services to various parts of the society. NABIL Bank ranks among the top three financial institution in Nepal in terms of market share of handling Nepal's trade. NABIL Bank is being managed by a team of qualified and highly experienced professionals. There are altogether 427 permanent employees working in the Bank. (Annual Report 2008/09).

The Bank has total accumulated deposit of Rs. 37,348 million and the investment of the Bank in form of loan and advances were Rs.27,590 million in the fiscal year 2008/09. Similarly, the total profit of the Bank in the same period was Rs.1, 031 million. The NPA of the Bank in the year 2008/09 was recorded at 0.80% against loan and advances.

Key financial of the Bank as of F/Y 2008/09

Deposit	37,348 million
Loan and advances	27,590 million
Profit	1, 031 million
NPA (Loan) against total loan	0.80%

Source: Annual report- F/Y 2008/09 of Nabil Bank Ltd.

Nepal Investment Bank Ltd., (NIBL)

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Limited, was established on 21 January 1986 as third joint venture Bank between Nepalese and French Partners under the Company act, 1964.

The French partner holding (holding 50% of the capital) was Credit Agricole Indosuez, a subsidiary of one the largest Banking groups in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of Bankers, professionals, industrialists and businessmen, in April 2002, acquired 50% of the holding of Credit Agricole Indosuez in Nepal Indosuez Bank. The name of the Bank was changed to Nepal Investment Bank Ltd., upon approval of Bank's annual general meeting, Nepal Rastra Bank and company's registrar office.

The corporate office of NIBL is in Kathmandu and has altogether 31 branches in different urban and semi urban parts of the country. The capital (core & supplementary capital) of the bank is noted Rs.5,095 million in 2008/09.

The main objectives of the Bank is to provide loans and advances to the agriculture, industries and commerce and to provide modern Banking services to the people.

The shareholding stucuture of the Bank comprises of :

- A group of companies holding 50% of the capital
- Rastriya Banijay Bank holding 15% of the capital
- Rastriya Beema Sanshthan holding 15% of the capital
- The general public holding 20% of the capital.

Performance review

Total accumulated deposit in the Bank was Rs.46,698 million and the investment of the Bank in form of loan and advances were Rs.36,241 million in the fiscal year 2008/09. Similarly, the total profit of the Bank in the same period was Rs.900 million. The NPA of the Bank in the year 2008/09 was recorded at 0.82% against loan and advances.

Key financial of NIBL as of F/Y 2008/09

Deposit	46,698 million
Loan and advances	36,241 million
Profit	900 million
NPA (Loan) against total loan	0.82%

Source: Annual report- F/Y 2008/09 of Nepal Investment Bank Ltd.

Nepal Bangladesh Bank Ltd. (NBBL)

Nepal Bangladesh Bank Ltd., was established in June 1994 under the Company Act, 1964, with an authorized capital of Rs.240 million and paid up capital of Rs.60 million as a joint venture Bank with IFIC Bank Limited of Bangladesh. Its Head Office is situated in Kathmandu.

The prime objective of this Bank is to render Banking services to the different sectors like industries, traders, businessmen, priority sector, small entrepreneurs and weaker section of the society and every other people who need Banking Services. It has accommodated a large number of clients and has been able to provide excellent

services to its clients. With a network of 17 branches and a corporate office, the Bank commands the largest network amongst the joint venture commercial Banks in Nepal. The Bank has introduced its first ATM facility at Katmandu Plaza, Putali Sadak Branch to give 24 hours and 365 days Banking services to their valued customers.

Even being one of the joint venture Banks of the country, the financial health of the Bank was found ill. Due to its ill health, NRB, central Bank of the country, had taken over its management under their custody & control and has been appointed a management team to restructure the Bank's performance for one year contract.

Two month after the takeover of the management of financially-troubled NBBL by Nepal Rastra Bank, had successful results. According to NRB, "The interim management had able to recover Rs 700.3 million during these last two months. The non-performing asset level has been reduced to 19.30 per cent from an earlier 34 per cent," said the coordinator of the management team. The central Bank intervened in the NB Bank mid-November, 2007 and took over the management to avoid a possible financial catastrophe, and deputed a four-member management team to run the Bank. Following, exposure of the Bank's difficult financial position, NB Bank saw a run on Bank resulting massive withdrawal. In the last two months, Rs.463.30 million was recovered from loan investment and Rs237 million from NB Group.

Later, NRB handed over its management to a separate professional bankers' management team to minimize the previous back log. The contract is being matured on June 2008 and renewal of the contract for further one year is expected.

Share Holding Pattern

NB International Limited, Ireland	50%
Local Financial Institution	20%
Nepalese Public	30%

Performance review:

Total accumulated deposit in the Bank was Rs. 9,995 million and the investment of the Bank in the form of loan and advances were Rs.7,025 million in the fiscal year 2008/09. Similarly, the total profit of the Bank in the same period was Rs.2,472 million. The NPA of the Bank in the year 2008/09 was recorded at 19.30% against loan and advances.

Key financial of NBBL as of F/Y 2008/09

Deposit	9,995 million
Loan and advances	7,025 million
Profit	2,472 million
NPA (Loan) against total loan	19.30%

Source: Annual report- F/Y 2008/09 of Nepal Bangladesh Bank Ltd.

1.2 Focus of the study

A sound financial system plays an important role in economic development and reduction of poverty in a developing country like ours by creating a pool of resources, reducing costs of capital, minimizing risks, expanding and diversifying opportunities and increasing the efficiency of resources used. It not only reduces the transaction cost

but also interfaces with sound corporate governance. A healthy financial sector is crucial for attracting foreign capital as it creates confidence among the investors.

Financial institution is subjected to provide following activities like deposits, loans and advances, securities, insurance policies, corporate bonds and shares etc. The main earning of financial institutions is from loans and advances but all these loans are not paid in time and those uncovered loans are termed as **Non Performing Assets (NPA)**.

A high level of NPA is a serious burden to the financial system and to the economy as well. So, high level of NPA leads the bank to the high bank risk. There are probably many reasons behind high level of NPAs. Sometimes it arises due to the external factors such as decrease in the market value of the collaterals, deterioration in the borrower's repayment capacity and economic slowdown. Sometimes, it is caused by the borrower's misconduct and sometimes by the weakness in internal management practices of the Bank, credit extended to non-viable projects and ineffective credit monitoring and supervision system.

NRB plays major role for protecting financial institutions from financial distress that automatically safeguard depositors' interest and ensure stability in the economy. NRB issues directives from time to time for overall controlling of financial institutions. As per the directives, commercial Banks are supposed to categorize disbursed loans into four different categories on the basis of ageing of its past dues. Each category passes certain percentage of its loan to provisioned amount for probable loss. So, the level of this provisioned amount has direct impact upon profitability and performance of

commercial Banks. The higher this amount, the lower is expectation of net profit to the Bank.

NPA and loan loss provision is one of the major concern to solve this on timely basis, otherwise indirectly or directly it will certainly cost to Banks and even to economy. The financial institutions may become distracted with additional efforts required to manage these problem loans.

In this situation, financial institutions may lose sight of their core activities. In light of the possibility of huge write offs on loan a loss, credit risk is calculated at the higher side. This phenomenon will certainly affect activities of financial intermediaries. These will definitely obstacle growth of financial institutions and economy as well. The economy will be affected because productive units will not get credit access that will hamper development process. Therefore, the level of NPA should be kept at the minimum level and the Banks should manage to even minimize and make the target to make it zero.

1.2.1 NPA (Non Performing assets) in Present Context

Loans and advances is the largest item of the bank in the asset side, but negligence in administering this asset could be the main cause of a liquidity crisis in the bank and one of the main reasons of bank failure. It can be clearly seen on two largest government owned banks, Nepal Bank Limited (NBL) and Rastriya Banijya Bank (RBB). Nowadays, in most of the national daily newspaper, not only the two banks, but also other commercial banks and financial institutions are publishing names of borrowers

who defaulted in making payment of banks loans. In recent days, not only government owned banks but some of the banks under private ownership are also suffering from NPA burden. Due to increment in NPA level, some of the commercial banks are facing cash crunch. It is a matter of debate amongst the entire banking sector regarding the real cause of NPA increment, though private sector bank has less non performing assets in comparison to NBL and RBB. Quite often genuine borrowers face the difficulties in raising funds form banks due to high NPA. Either the bank is reluctant in providing the requisite funds to the genuine borrowers or if the funds are provided, come at a very high cost to compensate the lender's losses caused due to high level of NPA.

In our context, credits need to be classified in to four categories, namely pass, substandard, doubtful & loss. Out of these classifications, the loan of the last three categories is called non-performing assets. In other words all loans classify as substandard, doubtful & loss categories are called NPA (Non performing assets/loan). Based on this, when the loan is classified as sub-standard due to non-payment of interest or installments for 3 months, it is converted into NPA. In banking business, all are normally exposed to credit risk. NPA is not fully avoidable in the Banking industry. However, it must be kept at a minimum level as far as possible. At the same time the possible loss must be provided immediately. (Shrestha Ranjit, 2008:4)

1.3 Statement of the problem

Commercial banks/financial institutions in Nepal have been facing several problem like lack of smooth functioning of economy, cut throat competition due to mushrooming

growth of the banks and financial institutions, over liquidity caused by lack of good lending opportunities just sharing a small size of the cake among the banks, different policies and guidelines of NRB, Political instability, security problem, poor information system, increasing non performing assets etc.

Although the circumstances leading to financial problem or crisis in many Nepalese banks differ in many respects, what is common area is most of the Nepalese banks are confronting with the increased size of Non-Performing Assets. Every loan and advance has its maturity period or expiry date. The borrower must repay the loans by the maturity period but there is no certainty that all the loans are recovered by the maturity date .Once the loan is given it is supposed that the

repayment of interest or principal shall have to be served without any hindrance. The resources is not be considered utilized properly when the loans provided to the clients is not regular and if there is cumulative overdue outstanding. There may be various reasons behind the loans that turn irregular from regular one. The main reason may be economic situation of the country which needs to be peace, friendly for smooth operation of commercial banks. The other contributing

factors that turn the good loan into bad are the attitude of the borrower, types and quality of security taken and legal hurdles created by the borrower when the recovery action is started. Due to various hurdles on way of management of NPA, commercial banks are now losing their profitability and struggling for their existence. The existence of the bank can be question on this situation. Non-performing assets can be defined as those assets that cannot be used productivity. It could reduce bank's profitability both a

loss of interest income and write off the principle loan amount. In one hand, the bank cannot mobilize its asset to profitable investment opportunity, which increase opportunity cost for the bank. In the other hand, the banks have to make provision for doubtful debts from their profit and other sources. That decreases or may occur losses the bank profit. To resolve the problem of the losses or likely losses of this nature, to safeguard depositor's interest and to ensure stability in the economy, Nepal Rastra Bank (NRB), as the central bank, has amended several old directives as present need and issued many new circulars, directives from time to time related to various aspects of the banks. NRB has directed to maintain loan loss provisioning according to aging basis for risk mitigation. NRB Directive No.2 (2005) is related to loan classification and provisioning of commercial banks. As per this directive commercial banks are supposed to categorize the loans disbursed into four different categories on the basis of ageing of its past dues and each category of loan require certain percentage of it to be provisioned for the possible loss. Going through the old directives regarding loan loss provision, bank has to classify the loans into six different categories and as per that directive, for a loan to be bad the time period of past due was 5 year but with the new directive, that period has also been reduced. This means that previously categorized substandard loan will now be a doubtful loan and doubtful loan will be bad. Accordingly more provision has to be made for probable loss in year to come than previous years. The provision of the loan means the net profit of the bank will come down by that amount. Hence there is great impact of loan loss provision (LLP) in the profitability of the banks. NRB has also issued directive to all commercial banks and financial institution ensuring

transparency during loan disbursement. In this regards, NRB has issued the directive, while granting loan principle, above Rs.1 Million, information from Central Information Bureau (CIB) is must. All Commercial banks as well as financial institutions are required to disclose the name of loan defaulters in every six months. Loan administration should be done properly. Different principles for granting loan should be considered.

Although financial institution is the backbone or engine of the growth of economy of Nepal, it has several problems like lack of smooth functioning of economy, different policies and guidelines of Nepal Rastra Bank, political instability, security problem, poor information system, over liquidity caused by lack of good lending opportunities, increasing non- performing assets etc. out of these problems, NPA is one of the serious problem faced by the commercial Banks. So every Bank has now put the NPA management under top priority. It is because; the NPA in the Banking system does not generate adequate revenue for the Bank, reduces the profitability and ultimately may lead to the failure of the Bank. So, in the recent days, not only government owned Banks but some of the Banks under private ownership are also suffering from NPA burden.

1.4 Importance of the Study

The study has its own significances in various perspectives .These perspectives are as follows:

- ❖ This study will be helpful in providing some of the present issues, latest information and data regarding the NPA of the selected commercial Banks.
- ❖ This study also gives the real picture of the current nonperforming assets to its stakeholders.
- ❖ The study will be helpful for the Banking industry to identify and to trace the contributing factors causing NPA and to reduce its level.
- ❖ This report will be helpful for regulating authority to know existing recovery problem so as to have some modification of directives, laws and other proceeding.
- ❖ This report may also be helpful in providing information to future researchers in overcoming the problems that they may face while doing research in the similar type of the research work.

1.5 Objective of the study

General objectives of this study are to analyze and identify the impact, cause and consequences of non- performing assets. Besides this, there are some specific objectives that are listed below:

- ❖ To identify and trace out the contributing factors causing NPA.
- ❖ To know the proportion of NPL in the selected commercial Banks.

- ❖ To evaluate the relationship between loan and loan loss provision in the commercial banks.
- ❖ To analyze the impact of non-performing assets in the performance of commercial banks.

1.6 Limitations of the study

This research is subject to certain limitations as stated below:

- ❖ The research focuses only on the non-performing assets of Nepalese Commercial Banks. So various other aspects of the Banks remain unexplored.
- ❖ The period of the study is limited from fiscal year 2004/2005 to 2008/2009.
- ❖ Due to time, resources and financial constraints, some of the issues are ignored.
- ❖ The another limitation of this study is that, this study is mainly based on secondary data, interviews, published books, unpublished reports, public documents, annual reports of the selected Banks, articles of different writers and so on.

1.7 Organization of the study

The entire report has been divided into five different chapters, each chapter dealing with different aspects of the entire report. The chapter so divided is as follows:

- ❖ **Introduction:** This is the first chapter, which includes background of the study, focus of the study, statement of the problems, objectives of the study, importance of the study, limitation of the study and organization of the study.

- ❖ **Review of literature:** This is the second chapter and this includes review of books, journals and other relevant materials such as origin and concept of Bank, concept of commercial Bank. This chapter also covers the review of the theoretical background being implemented as for the management of NPA. Present regulatory provisions and their assessment are also reviewed in this chapter.
- ❖ **Research Methodology:** - This chapter deals with the research methodology, which consists of research design, sample size of sample and population, sources of data, data collection procedure and method of data analysis along with different statistical and financial tools used in the study.
- ❖ **Presentation and analysis of data:** This chapter includes the presentation of data so collected from secondary sources. For the data presentation different table and diagrams are used. After the presentation of data the presentation is analyzed using various statistical tools and techniques. Similarly it includes the analysis, interpretation of the primary data and information collected through survey.
- ❖ **Summary, conclusions and recommendations:** This is the last chapter, which includes summary of the study. It also includes the conclusions and recommendations that may be valuable to banking industry.

CHAPTER-TWO

REVIEW OF LITERATURE

CONCEPTUAL REVIEW

In this chapter effort has been made to examine and review some of the related books, articles published in different economic journals, bulletins, dissertation papers, magazines, newspapers, and websites. The literature review shares the reader the results of other studies that are closely related to the study being reported and to the larger, outgoing dialogue in the literature about a topic, filling in gaps and extending prior studies. It also provides a framework for establishing the importance of the study, as well as a benchmark for comparing the results of a study with other findings. In brief, this chapter includes review of following:

- 2.1 Theoretical Review (Books)**
- 2.2 Review of Books**
- 2.3 Review of Relevant NRB Directives**
- 2.4 Review of Relevant Articles**
- 2.5 Review of Previous Relevant Thesis**
- 2.6 Research Gap**

2.1 Theoretical Review (Books)

Under this heading the concept and meaning of some of the terms used in the study has been discussed.

2.1.1 Introduction of Commercial Bank

Commercial Bank Act 1974 defines, “A commercial Bank means Bank which deals in exchanging currency, accepting deposits, extending loans and doing commercial transactions”. Commercial Banks pool scattered fund and channels it to productive use. Banks undertaking business with the objective of earning profits are commercial Banks. Commercial Banks can be of various forms such as Deposit Banks, Savings Banks, Industrials Banks, mixed Banks, Exim Banks etc. Commercial Banks render a variety of services. In absence of commercial Banks, it would have been impossible to meet the financial needs of the country.

A commercial Bank is a type of financial intermediary and a type of Bank. After the Great Depression, the U.S. Congress required that Banks only engage in Banking activities., whereas investment Banks were limited to capital market activities. Since the two no longer have to be under separate ownership, some use the term "commercial Bank" to refer to a Bank or a division of a Bank that mostly deals with deposits and loans from corporations or large businesses.

Though the commercial Banks were established with the concept of supplying short term credit and working capital need of industries, they have been providing long-term loans for up to 20 years. After the enforcement to lend in priority and deprived sector, these Banks initiated to provide credit to Small and cottage Industries, Agriculture and Services. NRB has a provision of refinance facility also for such loan provided to priority and deprived sector including export credit. Having observed the success on

NABIL Bank Ltd; due to liberal economic policy in 1990s, many commercial Banks were established.

2.1.2 Brief History of Evolution of Banking

The Lombards, who were originally from plains of Lombardy of Northern Italy, introduced Banking practice to England. These lombards brought this business to the city of London and their home, the Lombard Street, is still the center of British Banking. The Lombards, after a century or so of business in London, were eventually bankrupted because they lent money to Kings who did not repay them.

After the Lombards, Banking was practiced by the goldsmith as a sideline to their normal activities in the bullion and jewellery fields. The early goldsmith used to have large vaults, which were soundly built and heavily guarded. The person who deposited surplus funds with the goldsmith became as a “depositor” and naturally paid for the privilege of having his money defended this way. These payments were called ‘Bank Charges’. The depositors who needed funds to pay wages or debts, could call at the Bank and collect such sums as required.

In the east, it is believed that Banking was practiced at the time of “Manu” as referred to in Manusmriti. There is an opinion that at the time of “Chanakya” also it was in practice, as Banking has been mentioned in “Kautilya’s Arthasastra “which is the first book on economics. In the west, the history of Banking begins in ancient Greece, Rome and Mesopotamia.

However as a public enterprise, Banking made its first beginning around the middle of the twelfth century in Italy. The Bank of Venice, founded in 1157 was supposed to be the most ancient Bank. Bank of Barcelona and the Bank of Geneva in 1401 and 1407 respectively, followed. Subsequently Bank of Amsterdam set up in 1609, which was very popular then. The Bank of Venice and the Bank of Geneva continued to operate until the end of eighteenth century. With the expansion of commercial Banking activities in Northern Europe, there sprang up a number of private Banking houses in Europe and slowly spread throughout the world.

2.1.3 Banking System in Nepal

It is assumed that the regular history of coinage in Nepal began from the 5th century A.D. In the year 879/80 A.D. a low cast merchant named “Sankhardhar Shankhwa” introduced a new era after paying all the debt existed in the country. The advent of 12th century marked a new period in economic history of Nepal. In 1877 A.D. Prime Minister Ranoddip Singh introduced many financial and economic reforms. The “Tejarath Adda” was established at that time. It may be regarded as the father of modern Banking institution and for a quite a long time it tendered a good service to government servants as well as to the general public. He introduced ‘Tejarath Adda’ to provide credit facilities to general public at a very low rate. Basically concept of ‘Tejarath Adda’ was to provide loan by undertaking collateral of gold and silver. Government employees have facilities to take loan and that loan was slowly redeemed from their salary. Furthermore, successive Prime Minister Chandra Shamsher

extended its service to outside Kathmandu Valley. Legal provision was made to prevent the practice of capitalization of Tejarath Adda. This step was towards modern Banking in Nepal. But concept of “Kaushi Tosh Khana” brought by King Prithvi Narayan Shah was also a step towards modern Banking in Nepal.

Tejarath Adda was only subjected to provide loans to general public. It did not accept deposits. At one point of time it faces financial crisis and failed to meet demand of general public. Prior to the establishment of Nepal Bank Ltd; borrowers totally relied upon crooked lenders, who charged very high interest rates and other charges. Beside this, these money lenders also undertake valuable collateral in form of land, building, and precious metal. Nepal Bank Ltd came into existence under the Nepal Bank Act 1937. The prelude of the Nepal Bank Act 1937 states the objectives of setting up the Nepal Bank Ltd as follows:

“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 services for the people and for the betterment of the country, this law is hereby promulgated for the establishment of the Bank and its operation”.

Nepal Bank was the first Bank to play dual role as commercial Bank and central Bank. Till the establishment of Nepal Rastra Bank, Nepal Bank Ltd carried out all the functions of central Bank. Nepal Bank Ltd was semi government Bank so it unwilling went to many sectors in spite of banking service needs. Because of this purpose,

Rastriya Banijya Bank a fully government owned Bank was established on 23rd January 1966.

Till 1984, Nepalese financial sector was dominated by two commercial Banks i.e. Rastriya Banijya Bank and Nepal Bank Ltd. Commercial Bank act 1974 was amended in 1984 to increase growth of commercial Banks in order to provide Banking services to the needed sector. There was also provision for foreign investors to open commercial Banks in Nepal. In consequence, Nepal Arab Bank Ltd. (Nabil Bank) was established on July 12, 1984, with the partnership of Dubai Bank Ltd., Dubai. (Madhusundar Shrestha, 2006:4)

Before 1985 two Development Banks i.e., NIDC and ADB were the non-Banking financial institutions. Employees Provident Fund and National Insurance Corporation were established to increase the financial activities of the country. Finance Company Act 1985 was introduced which brought some 79 Financial Institutions in this country.

2.1.4 Loans, Discounts and Overdrafts (LDO)

Commercial Bank's main function is to create credit from its borrowed fund. The Bank doing so converts its liability into active asset. Loans and advances are the assets coming from such activities. Loans and advances dominate the asset side of the balance sheet of any Bank and also constitute the primary sources of income to the Banks. They are also the least liquid of the Bank's entire asset. Loans and advances may take different forms and are allowed against various types of securities. Loans, overdrafts, discounting of bills of exchange etc are some of the forms of Bank lending.

Granting loans and advances always carries a certain degree of risk. This loans and advances are also regarded as risky assets of Banks.

2.1.5 Loan Classification

Loan classification refers to the process Banks use to review their loan portfolio and assign loans to categories or grades based on the perceived risk and other relevant characteristics of loans and as per guidelines of central Banks. The process of continual review and classification of loans enables Banks to monitor the quality of their loan portfolios and when necessary to take remedial action to counter deterioration in the credit quality of their portfolios. In most of the countries, a number of days a past due payments represents a minimum condition for loan classification purposes. However some criteria which exhibit forward looking features are also considered. As per NRB directives no. 2 banks are required to prepare and submit the outstanding loans and advances classified on the basis of ageing to the banking operations department and inspection department and supervision department of NRB within one month from the end of each quarter.

In the context of Nepal, as per guidelines of NRB, loans are classified into four categories namely Pass, Substandard, Doubtful and Loss.

2.5.1 Pass

Loans and advances whose principal amount are not past due and past due for a period up to 3 (Three) months shall be included in this category. These are classified and defined as Performing Loans.

2.5.2 Substandard

All loans and advances that are past due for a period of 3 months to 6 months shall be included in this category.

2.5.3 Doubtful

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

2.5.4 Loss

All loans and advances which are past due for a period of more than 1 (one) year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

Loans and Advances failing in the category of Sub-standard, Doubtful, and Loss are classified and defined as **Non-Performing Assets (Loan)**. For Loss loan, NRB has made some additional arrangement though the loan may not be past due has the following discrepancies:

1. There is no security at all or if the security provided is not in accordance with the borrower's agreement with the bank.
2. The borrower has been declared bankrupt.

3. The borrower is absconding or cannot be found.
4. Purchased or discounted bills are not realized within 90 days from the due date.
5. The credit has not been used for the purpose originally intended or if there is partial fund division.
6. Due to non recovery, the auctioning process of collateral has passed six months and if the recovery process is under litigation.
7. Loans provided to the borrowers included in the blacklist and where the CIB blacklists the borrower. (Madhusundar Shrestha, 2006:259)

2.1.3 Past 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.

2.1.4 Performing Assets (Loans)

Performing Loans are those loans that repay principle 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.

2.1.5 Non-performing Assets/Loans (NPA / NPL)

These are the loans that do not repay principle and interest timely to the Bank. NPL has many different meanings, which varies from country to country. In some countries non-performing loans means, the loan is impaired. In some countries, it means that the payments are past due, but there are significant differences among countries how many days a payment should be in arrears before past due status is triggered.

Nevertheless, a rather common feature of NPL appears to be that a payment is 'more than 90 days past due. In Nepal also, if the loan is past due for over 3 months, it is non-performing loans. Hence the loans falling under Substandard, Doubtful and Loss categories are regarded as Non-performing loans.

<http://www.indianfoline.com/legal/feat/thle.html>.)

Non Performing Asset means an asset or account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset, in accordance with the directions or guidelines relating to asset classification issued by NRB.” (*Dahal & Dahal; 2002: 15*)

“If any advances or credit facilities granted by bank to a borrower becomes non-performing, then the bank will have to treat all the advance/credit facilities granted to that borrower as non-performing without having any regard to the fact that there may be still exist certain advance/credit facilities having performing status.” (*Pandey; 1999: 167*)

“NPAs have a different meaning that varies from country to country. In some countries, it means that the loan is impaired. In some countries, it means that the payment are due but there are significant different among countries how many days a payment should be in arrears before past due status is triggered.” (*Shrestha; 2004: 14*) “According to current banking Act, the banks have to make provision for bad and doubtful debts. After deducting the bad and doubtful debts from the non-performing assets, net non-performing assets can be achieved.” (*Regmi; 2006: 75*)

$$\text{NPA} = (\text{NPL} + \text{NBA} + \text{RNPL} + \text{SI} + \text{UA})$$

Where;

NPA = Non-Performing Assets NPL = Non-Performing Loan

NBA = Non- Banking Assets

RNPL = Remaining non performing loan

SI = Suspend Interest

UA = Unutilized Assets

“Non Performing loan (NPL) can be defined as the non-productive assets of the banks. In other words, it is the loan or bad and doubtful debts that doesn't repay timely. Generally the loan, which doesn't repay with in three months, is known as non-performing loan. The loan amount that doesn't covered by the collateral after selling is known as non-banking assets (NBA). Non performing assets also includes the suspend interest. It is the interest, which become receivable unutilized assets and those investments which don't generate any cash or incomes to the bank are also non-performing assets (NPAS). The proper management of those assets to generate income is known as management of non-performing assets.” (*Rahdaswami & Vasudevan; 1984:49*)

Increasing NPAs is the emerging problem of the banks. We know that the some banks are closed sown due to the uncontrollable NPAs. In USA, 1016 commercial banks were declared as unsuccessful (bankruptcy) from 1985 to 1990 and 27 banks from 1995 to 2001. However, Nepalese commercial banks face this type of problem till now but they

have to take step towards it. For this, appropriate amount of bad and doubtful debts is made provision from their incomes/profits.

2.1.5. a Reason behind high level of NPA

The following points are the important factors that contributed for creating NPA and retention of high level of NPA for long period of time.

- Inadequate project appraisal
- Inadequate mitigation of credit risks (especially for new project)
- Lack of internal control and credit operation
- Lending on unviable project
- Inadequate equity injection
- Poor credit monitoring
- External factors (business failure due to conflict and some other reasons)
- Not limiting concentration risks.

2.1.5.b Loan Loss Provision

Every business dependent on credit sales or credit has a certain degree of default risk. The dealing of banks is centered on monetary matters. Hence, the default risk associated with it is evidently high. Loan loss provision is the fund, allocated for the purpose of safeguarding possible losses form the various loans. In other works, it is the cushion against possible losses form and it reflects the actual picture of assets (loan) quality of the bank. Loan loss provision 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 there is practice of showing net loan (Total Loans – Loan Loss Provision) in financial statements. The amount of loan loss provision is directly correlated to total credit of the Bank. The amount required for provisioning depends upon the level of NPAs and their quality. High amount of provision is an indication of that Bank's credit portfolio needs serious attention. One percent provision of total credit is an ideal position as it is the minimum requirement for all good loans. In Nepal, 1%, 25%, 50% & 100% provisioning should be made for Pass, Substandard, and Doubtful and Loss loans respectively. (Shrestha Madhu Sundar, 2006:256)

2.1.6 Why Loans go bad?

Below mentioned are the major reasons that gets loan into bad loans.

1. Lack of Credit policy and culture:

While dispensing credit, commercial Banks have to thoroughly examine the inherent risk elements in a credit proposal in line with their credit policy. This contains the risk to manageable level and also ensures that the Bank does not fall into an asset liability mismatch position. In order to safeguard Bank's assets with respect to market situation a clear cut written credit policy is must in every financial institution. Policy guides the institution to diversification on its own priorities and its portfolios with emphasis on highest quality. Credit culture decides behavior of credit team. If behavior of credit team is not aligned with institution's priorities, then the credit culture of the institution is worthless. Credit culture also reflects institution's system

and procedures. A good credit will definitely help in attainment of management priorities with minimum errors.

2. Risk Management Strategy:

There are so many risks associated with a lending. An extensive list of risk is given below. Most of the time and most of the Bankers of our society tend to compromise in analyzing all the risks properly and then loan turns into bad. Some risks can be measured with the help of mathematical credit tools; however, some risks like regulatory, defalcation risks are quite difficult to measure and therefore needs in depth examination before finalizing a loan.

<u>Characteristics</u>	<u>Risk Class</u>	<u>Risk Category</u>
1. Environment	Environment risk	(a) Legislative Risk (b) Economic Risk (c) Competitive Risk (d) Regulatory Risk
2. Human Resources	Management risk	(a) Defalcation Risk (b) Organizational Risk (c) Ability Risk (d) Compensation Risk
3. Financial Services Risk	Delivery Risk	(a) Operational (b) Technological Risk

- | | | |
|------------------|----------------|------------------------|
| | | (c) New Product Risk |
| | | (d) Strategic Risk |
| 4. Balance sheet | Financial Risk | (a) Credit Risk |
| | | (b) Liquidity Risk |
| | | (c) Interest Rate Risk |
| | | (d) Leverage Risk |
| | | (e) International Risk |

3. Know Your Customer (KYC)

KYC is the modern mantra in the Banking practices which needs to be followed strictly whether it is deposit or lending. If we don't know our customer in terms of his capacity, managerial ability, past track record, market reputation, business background, then the loan extended to such customer may get default and attract NPA (Non performing assets) at any time.

4. Lack of proper Financials report

One of the common and serious problem of the market is that most of the borrowers do not furnish the financials report or even if furnish genuine or authenticity of the information is questionable. This results difficulty in analyzing various risk associated. Due to this Bankers of our market are forced to make name/security based lending, whereas financial based lending system is the only tested and proved system of lending.

5. Stiff Competition and size of the market

The mushrooming financial institutions have created stiff unhealthy competition amongst the institutions on the one hand and other hand the size of the market in proportion to the number of institution has not increased. Rather, in recent years some international and national events have shirked the Nepalese market. No sign of improvement is observed, instead problem seems aggravating. Having this, the customers have been taking advantage of above situation and taking loan from more than one Banks showing common security. This is called multiple Banking which is a common problem being faced by commercial Bank. Competition is indispensable in an open economy and it cannot be avoided. However, atmosphere of healthy completion can be created by dissemination information amongst the financial instructions.

6. Undue influence:

One of the major factors contributing for bad loan is undue influence exerted by politician, bureaucratic and sometimes even by members of the board and seniors executives of the Bank itself. The list of the factors contributing bad loans are many more apart from enumerated above. It is not possible to address all of them in short time.

2.1.7 Challenges

1. Market

As said above market situation of the country is worsening which is likely to increase bad loans. Recent categorization of some industries as “sick” is likely that performing units will also turn into NPAs. Further, the present market situation has reduced the realize value of security. It is high time that financial situation should untidily come forward with innovative ideas of expansion of the market.

2. Amendment of Relevant law:

Under the present legal system, financial institutions are spending years and years to realize the values of assets securitized with them by borrowers by way auctions. Whenever, auctions of securitized assets is initiated, the borrowers are taking undue advantage of buying pretty long time due to poor legal system, in order to curb this situation, relevant laws need amendments in such a way that the documents executed by the borrowers in favor of financial institutions treated as “proven debts” unless the elements of mollified intention on the part of leaders is apparent.

3. Credit Information Bureau (CIB)

Present legal status of CIB needs immediate changed, as in some cases, decision of CIB blacklisting some defaulting borrowers have been reserved by the court. It has also been observed time and again that financial institutions themselves tend to ignore the spirit of disseminating information with CIB. Therefore, CIB should be established under a separate act as a nonprofit making organization and every financial institution should be its member compulsory. Any institutions not cooperating with CIB should

be penalized. This will help in disseminating information amongst the financial institutions.

4. Control and monitoring

One of the factors for growing bad loans is weak control and monitoring of a borrowing account institutions. Control and monitoring of borrowing accounts starts right from appraising the loan request and ends up on settlement of loan in full. Therefore, credit and monitoring job is a regular process of every financial institution. The loan does not go bad at once, initially some symptom of sound healthiness (warning signs) on loan accounts surface, and if the situation is not addressed, it is for sure that loan will turn into bad. Some of the system as follows:

- Excessive use of demand of funds over and above the agreed limits
- Pending settlement of government or preferential creditors and authorities.
- Loss of sales or sales proceeds not coming to financial institutions
- Erosion of the value of stocks or security of dead stocks.
- Several lines of credit from the other lenders which, if fully utilize, could make the level of funding unacceptable.
- Failure to meet orders
- Reliance on one consumer/suppliers
- Unmanageable diversification of business
- Request for release of securities, especial guarantee.
- Delays in coming cash

- Two businesses in one set of premises.
- Management change, etc.

2.1.8 Problems due to NPA

“The three letters Strike terror in banking sector and business circle today. NPA is short form of “Non Performing Asset”. The dreaded NPA rule says simply this: when interest or other due to a bank remains unpaid for more than 90 days, the entire bank loan automatically turns a non performing asset. The recovery of loan has always been problem for banks and financial institution. To come out of these first we need to think is it possible to avoid NPA, no can not be then left is to look after the factor responsible for it and managing those factors. The following are the major problems caused by NPA;

- a.** Owners do not receive a market return on their capital. In the worst case, if the banks fail, owners loose their assets. In modern times this may affect a broad pool of shareholders.
- b.** Depositors do not receive a market return on saving. In the worst case if the bank fails, depositors loose their assets or uninsured balance.
- c.** Banks redistribute losses to other borrowers by charging higher interest rates, lower deposit rates and higher lending rates repress saving and financial market, which hamper economic growth.
- d.** Non performing loans epitomize bad investment. They misallocate credit from good projects, which do not receive funding, to failed projects. Bad investment ends up in

misallocation of capital, and by extension, labour and natural resources. Non performing asset may spill over the banking system and contract the money stock, which may lead to economic contraction. This spill over effect can channelize through liquidity or bank insolvency. When many borrowers fail to pay interest, banks may experience liquidity shortage. This can jam payment across the country, Illiquidity constraints bank in paying depositors, undercapitalized banks exceed the banks capital base.” (Reddy, Appannaiah & Satyaprasad; 2008: 70-73)

2.1.9 Impact of NPA

The impact of NPA is wide in range. However, the major impacts are listed below;

a. Profitability

“NPA means booking of money in terms of bad asset, which occurred due to wrong choice of client. Because of the money getting blocked the prodigality of bank decreases not only by the amount of NPA but NPA lead to opportunity cost also as that much of profit invested in some return earning project/asset. So NPA doesn’t affect current profit but also future stream of profit, which may lead to loss of some long-term beneficial opportunity. Another impact of reduction in profitability is low ROI (return on investment), which adversely affect current earning of bank.” (Shekher & Shekher; 1998: 52).

b. Liquidity

Money is getting blocked, decreased profit lead to lack of enough cash at hand which lead to borrowing money for short period of time which lead to additional cost to the company. Difficulty in operating the functions of bank is another cause of NPA due to lack of money in routine payments and dues.

(Shekher & Shekher; 1998: 52)

c. Involvement of management

Time and efforts of management is another indirect cost which bank has to bear due to NPA. Time and efforts of management in handling and managing NPA would have diverted to some fruitful activities, which would have given good returns. Now a days banks have special employees to deal and handle NPAs, which is additional cost to the bank. *(Wild, Subramanyam & Haskey; 2003: 31)*

d. Credit loss

Bank is facing problem of NPA then it adversely affect the value of bank in terms of market credit. It will lose it's goodwill and brand image and credit which have negative impact to the people who are putting their money in the banks. *(Shekher & Shekher; 1998: 53)*

2.1.9.1 Bank Growth Vs NPAs

“Following were identified as major impacts of NPAs on Bank's Growth;

a) Deterioration of Profits

When an advance become NPA Interest due for last 3 month and future accruals are required to transfer in to interest in suspense.

b) Increase in Provisions

When a loan or overdraft falls in to substandard category it is required to provide capital provisioning.

c) Drop in Reserves

When a facility is not recoverable capital will be write off at last. This will have an impact on Profits.

d) Increasing Overhead Costs

It is costly to maintain non performing advances, since it doesn't generate an income.

(Ex: follow up costs, staff costs, legal costs)

e) Increasing Market Borrowings

When advances are not recoverable there fill be a liquidity issue in meeting payments and granting further credit. In order to finance banks tend to borrow from the market at high rate.

f) Drop in Share Value

When it is known a bank is having a high Gross NPA ratio and Net NPA ratio share value will be dropped.

g) Negative Image

In the long run bank will have a negative image due to NPAs. (*Wild, Subramanyam & Haskey; 2003: 44*)

2.1.9.2 NPAs impact on Economy

Not only NPA affects the sound system of Bank, but also affects the whole economy.

a) High Interest rates

In order to compensate the loss of interest in NPAs banks have to charge high interest rate from other borrowers. This will have an indirect impact on inflation.

b) Negative Impact on Development

When funds to lend become scare due to NPAs, country's development will get effected.

c) Unemployment

Businesses ceased to exist due to inability to meet its repayment obligations. This will create unemployment.

d) Instability in the Banking System

Due to high NPA position if liquidity crisis arises and bail out is required, this has huge impact on whole banking sector. (*Wild, Subramanyam & Haskey;2003: 48*)

2.1.9.3 Early Symptoms of NPA

Early symptoms by which one can recognize a performing asset turning into Non-performing asset can be mainly categorized in four sections; (*Bidani;2003: 71*)

A) Financial

Non-payment of the very first installment in case of term loan. Bouncing of cheque due to insufficient balance in the accounts. Irregularity in installment. Irregularity of operations in the accounts. Unpaid over due bills. Declining Current Ratio. Payment which does not cover the interest and principal amount of that installment. While monitoring the accounts it is found that partial amount is diverted to sister concern or parent company.

B) Operational and Physical

If information is received that the borrower has either initiated the process of winding up or are not doing the business. Overdue receivables. Stock statement not submitted on time. External non-controllable factor like natural calamities in the city where borrower conduct his business.

Frequent changes in plan. Non payment of wages.

C) Attitudinal Changes

Use for personal comfort, stocks and shares by borrower. Avoidance of contact with bank.

Problem between partners.

D) Others

- Changes in Government policies.
- Death of borrower.
- Competition in the market.

2.2 Review of Books

(Bhuvan Dahal and Sarita Dahal: 2002) in their book “ A Hand Book to General Banking” have dealt with different aspects of Banking. As per their view, Banks have gained paramount trust in the public and they are rendering wide range of services covering different strata of society.

A Bank is judged on the basis of Capital, Assets Quality, Management, Earning, Liquidity and Sensitivity to market risk (CAMELS). Almost all the government Banks are running at loss. Though almost all the private sector Banks are showing profit, it is very difficult to call them sound if appraised from CAMELS approach. Some Banks have very low Capital Adequacy Ratio (CAR) while some Banks have piled up Non Performing Assets (NPAs). Similarly Banks don't have proper system in place for management of market risks. The people have been raising questions over the correctness of credit classification and provisioning of some Banks. Should the suspicion come true, it will prove very costly to the depositors, creditors and national economy as a whole. It would be prudent to advise NRB to strictly implement its recently introduced directive so that other Banks avert the fate of NBL, RBB & NIDC. (Bhuvan Dahal and Sarita Dahal, 2002:21)

They stated that loans and advances dominate the asset side of the balance sheet of any Bank and earnings from such loans and advances occupy a major space in income statement. “Most of the Banks failures in the world are due to shrinkage in the value of the loan and advances. Hence loan is known as risky assets. Risk of non-repayment of loan is known as credit or default risk. Performing loans have multiple benefits to

the society while non-performing loan erodes even existing capital. If loan is given to viable project not only lenders and borrower but also the whole society gets benefit but society loses its scarce capital if loan is given to project which is not viable.”

As per their view, there is risk inherent in every loan and efforts should be made to have proper control in every step of loan management. They further suggested that Bank should not take risk above certain degree irrespective of returns prospects. “Though all the loans are good at the time of disbursement, with the passage of time, they show the sign of problem. Based on the health of his loan, the loan should be classified and provided accordingly. Provisioning is made as cushion against possible losses and to reflect the true picture of Bank’s assets. Hence there is practice of showing net loan (Total Loan – Loan Loss Provision) in financial statements. The Bank should comply with the statutory regulation relating to loan classification and provisioning.”

(Shakespeare Vaidya) in his book “Project Failures and Sickness in Nepal, Challenges to Investors for Investment Risk Management” has discussed about the early warning system for investment risk management. In this book, the author has also envisaged number of examples about crisis created by the Banks in the world. As per his view, banking sector cannot ignore any sector of the economy on the basis of its good and bad and there is vital role of financial institutions in regards to bad accounts.

“Nepalese financial institutions have made significant progress especially during this decade, although they are still far behind the developed markets. In spite of having

great risk management i.e. focused on collateral rather than on project, credit culture is a new aspect both to the investors and corporate. Unless we have a credit culture, they will end up nowhere. Huge deposits, high technology, strong marketing, broad branching network. Finally we arrive the point – collection of the loans, on the whole, private sector Banks have lower non-performing assets (NPAs) than their public sector counterparts. NPAs are the loans that cannot be or have not been recovered. The government owned Banks suffer acutely from this, as they have to lend to various priority sectors, at the whims of their political masters and then forget everything about the money forever.”

With the growing number of financial institutions, market economy, economic liberalization etc industrial sickness in Nepal has phenomenal proportions in the last few years. Much of the amounts of almost all leading financial institutions are blocked in sick company, which can be witnessed from the auction notice published regularly in newspaper. Credit risk is the first risk, which keeps the Bank moving in the market. The loans provided against the securities are simply a promise to pay. When borrowing customer fails to make part or all of their promised interest and principal payments, these defaulted loans and securities result in losses that can eventually erode Bank’s capital. Because owner’s capital is usually no more than ten percent of the volume of loans and risky securities, and often much less than that, it cannot absorb too many defaults on loans and securities before Bank capital simply becomes inadequate to absorb further losses. At this point, the Bank fails and will close unless

the regulatory authorities elect to keep it afloat with government loans until a buyer can be found or until the Bank becomes viable by reducing its nonperforming assets.

“Banks and financial institution invoke penal measure when an installment of a term loan is defaulted. This is simply a Banking procedure to offend the borrowers in case of defaults; however it is not the complete panacea for project failures. The follow up machinery to enquire into the reasons for the default is generally slow in movement or maximum time would have already been consumed when Banks normally acknowledge the failure of the projects. The consequence is that by the time, lending institution is able to ascertain the causes for the first default, more installments are overdue.

Delays in implementation schedule, cost escalation in mid-stream, inadequate cash generation or siphoning of fund are few of the factors responsible for default. A lending institution unless it has an effective monitoring system, may miss these signs of potential sickness. The first default should be ample evidence that something is out of order and the term lending institution should take immediate steps to review the position in detail before go out of hand.”

Finally he concludes “In order to safeguard the Banks from the financial crisis likely to be arise from the project failures and sick units, that is, non performing loans, the government needs to do a number of things and fast. It must bring broad rules for poor financial institutions, transferring bad loans to bridge Bank or loan recovery agency, removes many non-performing loans from even healthier Bank’s balance sheets, beef

up regulation, supervision and disclosure, improve ability to Banks to sell the collateral that backs soured loans, and recapitalize the Banking system.”

2.3 Review of Relevant NRB Directives

NRB issues various directives relating Banking regulations and prudential norms. Among various directives issued in 2005 directive No. 2 are relating to loan classification and provisioning.

2.3.1 Directives Relating To Loan Classification and Provisioning

Banks shall classify outstanding loan and advances on the basis of aging of principal amount into the following 2 categories.

i. Performing Loan

ii Non Performing Loan

i. Performing Loan

Loans and advances whose principal amount are not past due and past due for a period up to 3 (three) months shall be included in this category. These are classified and defined as Performing Loans.

ii. Non Performing Loan

Loans and Advances failing in the category of Sub-standard, Doubtful, and Loss are classified and defined as **Non-Performing Assets (Loan)**.

A classification used by financial institutions that refer to loans that are in jeopardy of default. Once the borrower has failed to make interest or principal payments for 90 days the loan is considered to be a non-performing asset.

A **non-performing Asset** is a loan that is in default or close to being in default. Many loans become non-performing after being in default after 3 months, but this can depend on the contract terms.

Additional arrangement in respect of Pass Loan

Loans and advances fully secured by gold, silver, fixed deposit receipts and HMG securities shall be included under “Pass’ category. However, where collateral of fixed deposit receipt or HMG securities or NRB Bonds is placed as security against loan for other purposes, such loan has to be classified on the basis of ageing. Loans against FDRs (fixed deposits receipts) of other Banks shall also qualify for inclusion under Pass loan.

Additional arrangement in respect of “Loss” Loan

Even if the loan is not past due, loans having any or all of the following discrepancies shall be classified as ‘Loss’

- a) No security at all or security that is not in accordance with the borrower’s agreement with the Bank.
- b) The borrower has been declared Bankrupt.
- c) The borrower is absconding or cannot be found.
- d) Purchased or discounted bills are not realized within 90 days from the due date.
- e) The credit has not be used for the purpose originally intended
- f) Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation.

- g) Loans provided to the borrowers included in the blacklist and where the credit information Bureau blacklists the borrower.

Note: Bills Purchased/Discounted are to be classified into Loss Loan where they are not realized within 90 days from due date. This is departure from the normal classification rules applicable to other loans. Accordingly, it Bills would have only two classification Viz. Pass and Loss.

Additional arrangement in respect of term loan.

In respect of term loans, the classification shall be made against the entire outstanding loan on the basis of the past due period of overdue installment.

For Contingent items

In the events of conversion of contingent liabilities of the Bank e.g. LC or immature Guarantee into the liabilities of the Banks such amount becomes recoverable from the customers and such amounts also has to be classified as per the classification norms applicable to loans and advances and accordingly be provided with required provisioning.

Loan Loss Provisioning

The loan loss provisioning, on the basis of the outstanding loans and advances and bills purchases classified as per this directives, shall be provided as follows:

Classification of Loan	Loan Loss Provision
Pass	1 %
Substandard	25%

Doubtful	50%
Loss	100%

Note: - Loan Loss provision for loan is known as “General Loan Loss Provision” and Loan loss provision set aside for Non Performing loan is defined as “Specific Loan Loss Provision”.

Where the Banks provide for loan loss provisioning in excess of the proportion as required under the directives of NRB, the whole amount of such additional provisioning may be included in General Loan Loss Provision under the supplementary Capital.

Additional Provisioning in the case of Personal Guarantee Loans

Where the loan is extended only against personal guarantee, a statement of the assets, equivalent to the personal guarantee amount not claimable by any other shall be obtained. Such loans shall be classified as per above and where the loans fall under the category of Pass, Substandard and doubtful, in addition to the normal loan loss provision applicable for the category, an additional provision by **20-percentage point** shall be provided. Classification of such loans and advances shall be prepared separately.

Classification of Loan	Loan Loss Provision
Pass	21 %
Substandard	45%

Doubtful 70%

Loss 100%

Rescheduling and restructuring of Loan

In respect of loans and advances falling under the category of Substandard, Doubtful or Loss, Banks may reschedule or restructure such loans only upon receipt of a written plan of action from the borrower citing the following reason. ;

- a) The internal and external causes contributing to deterioration of the quality of loan.
- b) The reduced degree of risk inherent to the borrower/enterprise determined by analyzing its balance sheet and profit and loss account in order to estimate recent cash flows and to project future ones, in addition to estimate recent cash flows and to project future ones, in addition to assessing market conditions.
- c) Evidence of existing of adequate loan documentation.
- d) An evaluation of the borrower/enterprise's management with particular emphasis on efficiency, commitment and high standards of business ethics.

Loan Loss Provisioning in respect of rescheduled, restructured or swapped loan

- a) Except for priority sector, in respect of all types of rescheduled or restructured or swapped loan, if such credit falls under Pass category according to NRB directives, loan loss provisioning shall be provided at minimum 12.5%.
- b) In case of rescheduling or restructuring or swapping of insured or guaranteed priority sector credit, the loan loss provisioning shall be provided at one fourth of the percentage mentioned in clause (a)
- c) In respect of swapped loans, the Bank accepting the loans in swapping has to provide loan loss provision classifying the loan under the same classification as were existing. The Bank accepting the loan in swapping shall obtain certification from the concerned Bank of financial institution as to the existing classification.

Provisioning Against Priority Sector Credit

For uninsured priority sector credit full provisioning shall be made but for ensure priority sector credit provisioning shall be 25% of the percentage of normal calcifications. This is because DICGC bears 75% of the loan amount in case of defaults.

Classification of Loan	Loan Loss Provision
Pass	0.25%
Substandard	6.25%
Doubtful	12.50%
Loss	25.00%

(For Rescheduled/Restructured loan of Priority Sector)

Classification of Loan	Loan Loss Provision
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Pass

3.125%

Note: - In case of rescheduling, restructuring or swapping of insured or guaranteed priority sector credit, the proportion of loan loss provision would be 3.125% (being 25% of 12.5%).

Source: Based on field visit of NABIL Bank dated 16/12/2009.

2.4 Review of Articles

Shiba Raj Shrestha, (Feb. 8, 2008), Executive Director NRB in his article titled “Modus Operandi of Risk Appraisal in Bank Lending” has tried to highlight different aspects of credit risk management. As per his view, as the effective risk management is central to good Banking, the tradeoff between risk and return is one of the prime concerns of any investment decision whether long-term or short-term. He concludes, Effective credit risk management allows a Bank to reduce risks and potential NPAs. It also offers other benefits. Once Banks understand their risks and their costs, they will be able to determine their most profitable business, thus, price products according the risk. Therefore, the Banks must have an explicit credit risk strategy and supported by organizational changes, risk measurement techniques and fresh credit process and systems. There are five crucial areas that management should focus on;

- a. Credit sanctioning and monitoring process
- b. Approach to collateral.
- c. Credit risk arises from new business opportunities.
- d. Credit exposures relative to capital or total advances

e. Concentration on correlated risk factors.

Apart from these; the Bank management should regularly review all asset quality issues including portfolio composition, big borrower exposures, and development in credit management policy and process. He is hopeful that the Banks adopt good risk management practices and will be able to reap both strategic and operational benefit.

Write-Offs behind fall in Banks' NPL Level

Adhikari Maha Prasad, (June 20, 2008), in his article titled, "Non performing loan and its management" has tried to highlight the NPL refers to those loans and advances which are not able to serve the interest and the installment within the given period of time. And the internationally acceptable level of NPA is said to be less than 5% on total loans and advances. But, out of 29 commercial Bank, 15 Banks have less than 5% NPL and one have marginally above 5% NPL. NPL level of other five Banks is quite high and above the standard as well as industry average. Similar situation is the Agriculture Development Bank and some other non Bank financial institution. He said that the private sectors Banks have grown up with the different and improved Banking culture. The same culture is applied in the credit operation and it enables to manage their credit with possible stringent manner in most of the private sectors Bank. However, all private sectors Bank are not at par. Even private sector Banks are also carrying their NPA up to almost 20% of their credit portfolio. The average NPA level of the private sector Bank is 6.58%, which is higher than the standard but far below the industry's average. Public sector Banks are still exposed to high risks on credit and

holds huge amount of NPA. The recent attempt to write off of dead account would minimize the level of NPA substantially. However, other risks of one time writes off is still high to the individually entity.

He concludes, the process of credit risk management starts from the formation of appropriate credit policy guidelines rules and also comprises of credit appraisal, mitigation of the credit, credit documentation, processing, credit control, monitoring, follow ups, counseling, board over sight and timely recovery actions. When any of these steps is compromised, the loan may convert into the NPL. Once the loan is converted into the NPA, it must be resolved on time with appropriate NPL management strategy and methodology.

Non-Performing Assets: A need for rationalization

Chhetri Deependra B, (Sep 12, 2008), in the article titled “Non Performing Assets: A need for Rationalization”, the writer has attempted to highlight the NPA and its potential sources, implication of NPA in financial sector in the South East Asian Region. He had also given possible measures to contain NPA. “Loans and advances of financial institutions are meant to be serviced either part of principal of the interest of the amount borrowed in stipulated time as agreed by the parties at the time of loan settlement. Since the date becomes past dues, the loan becomes non-performing asset. The book of the account with lending institution should be effectively operative by means of real transaction effected on the part of the debtor in order to remain loan performing.”

As stated by the writer, the definition of NPA differs from country to country. In some of the developing countries of Asia Pacific Economic Cooperation (APEC) forum, a loan is classified as non-performing only after it has been arrear for at least 6 months. Similarly, it is after three months in India. Loans thus defaulted are classified into different categories having their differing implication on the asset management of financial institution. He also stated that NPAs are classified according to international practice into 3 categories namely Substandard, Doubtful and Loss depending upon the temporal position of loan default. "Thus the degree of NPA assets depends solely on the length of time the asset has been in the form of non-obliged by the customer (debtors). The more time it has elapsed the worse condition of asset is being perceived and such assets are treated accordingly." As per Mr. Chhetri's view, failure of business for which loan was used, defective and below standard credit appraisal system, credit program sponsored by Government, slowdown in economy/recession, diversion of fund are some of the factors leading to accumulation of NPAs.

He said that there is serious implication of NPAs, on financial institution. He further added that the liability of credit institution does not limit to the amount declared as NPA but extend to extra amount that requires by regulation of supervisory authority in the form of provisioning as the amount required for provisioning depends upon the level of NPAs and their quality. As per his view, rising level of NPAs create a psyche of worse environment especially in the financial sector. He mentioned that by reviving the activities of the financial institution like waiving interest, rescheduling the loan,

writing off the loan, appointing private recovery agent, taking help of tribunals and law of land etc NPAs can be reduced.

Finally he concluded that financial institutions are beset with the burden of mounting level of NPAs in developing countries. “Such assets debar the income flow of the financial institution while claiming additional resources in the form of provisioning thereby hindering gainful investment. Rising level of NPAs cannot be taken as stimulus but the vigilance demanded to solve the problem like this, eventually will generate vigor to gear up the Banking and financial activities in more active way contributing to energizing growth.”

Why Asset Management Co. is considered the best option to resolve the non performing loan problem?

Dhungana Bhisma Raj, (Nov. 25, 2008), the article related with Asset Management Co. has highlighted one of the approach mainly Asset Management Company (AMC) for resolving the problem of NPL. As per him, AMC is the specialized financial intermediary to manage the non-performing and distress loans of Banks and financial institutions who buy the NPL from financial institution and take necessary steps to recover the maximum value from the acquired assets. As per his view, if NPLs are not resolved in time there would be inherent direct or indirect costs to the economy. As stated by him NPL may arise due to the external factors like decrease in market value of collateral, deterioration in borrower’s repayment capacity, economic slowdown, borrower’s misconduct, improper credit appraisal system, lack of risk management

practice, ineffective credit monitoring and supervision system. Hence he suggested that, NPL should be kept at minimum level and the specialized institution such as AMCs should manage the distressed loans.

He says that, both traditional approach and AMC are available to deal with NPL problem. Under traditional approach, Bank handles the NPL's in its own way especially through recovery unit who focus on continuing negotiation with the borrower and give top priority to the loan recovery. As opined by the writer, this approach is useful in dealing with small business loans where personal touch is adopted but for big loans this approach does not work. "AMCs seem as the only realistic option when the financial sector recovery is the underlying objective in financial system where the institution fails to resolve the NPL problem through their own effort." He states that the main advantage of establishing AMC is that AMC is able to move in an expeditious manner removing the distraction of managing NPAs from the Banking system and frees up resources within the financial institutions allowing them to concentrate on their core activities.

He concludes, "As in most of the countries, Nepalese Financial system is largely dominated by the Banking sector. The Banking sector is severely affected by the NPL problem, it is estimated that the NPL of the Nepalese Banking system is around 16%. Therefore there is no doubt that it has serious implication on the economic performance of the country. It will be the eclipse in the development of financial soundness in the economy, if not controlled in time. However, traditional or AMC

root can be practiced to get recovery from this sickness of the financial system, the AMC root may be more effective approach to be quick recovery as it has been experienced around the world.”

“Asset Management Company: East Asia’s Experience”

The article titled above was published in editorial of Nepal Bank Limited Newsletter of Magh 2060. In this editorial, the writer has expressed some views regarding Asset Management Company models to resolve NPA problems in the context of East Asian countries. He has stated that, east Asia’s financial system are burdened with a large volume of non- performing assets which impede the ability of financial institution to serve the prudent intermediation need of their communities. “To resolve NPA problems and help restore the health and confidence of the financial sector, the countries in East Asia have used one or more asset management company (AMC) models. The most common AMC model used centralizes this activity in a government agency. However, some countries have opted for a more decentralized approach involving the creation of several ‘Bank based’ AMCs.” As per his view if the country’s NPA problems are limited or concentrated and government can afford to take a gradual approach, a Bank based AMC would be appropriate where as if NPA problem is more pervasive and the country’s business culture and legal infrastructure are less developed, then centralized government based strategy would be more appropriate.

“In Thailand, the government dealt promptly and decisively with NPA problems in finance companies but has not done the same for the Banking sector where NPA problems are still pervasive. The government policy of encouraging state owned and private Banks to establish their own AMC’s appears overly optimistic and is likely to require substantial government coordination and financial support. In Indonesia, the NPA problems appear to be the most severe by far, of all the countries surveyed. In Malaysia, the government promptly reduced NPA problems by transferring them to a centralized, government-run AMC. While it is too early to tell, the approach appears well coordinated and comprehensive. The Korean government has achieved major strides in addressing the loan problems in the financial sector. The government AMC faces an important challenge but is actively working to improve its management of distressed assets. In Philippines, problem assets are significant in the extent but substantially less than in other East Asian countries. The experience of the AMC in the Philippine provides valuable insights into the importance of operational independence.”

2.5 Review of Related Thesis

Anju Khadka (2008) has carried out research on “A Comparative Study on Investment Policy of Commercial Banks” with an objective to find out the relationship between deposits, investment, loans and advances and net profit. She has made the following conclusion while comparing the performance of NBL with NABIL, SCBNL and NIBL.

She concludes “NBL is comparatively less successful in on balance sheet as well as off-balance sheet operations than that of other CBs. It predicts that in the coming days if it could not mobilize and utilize its resources as efficiently as other CBs to maximize the returns, it would lag behind in the competitive market of Banking. Profitability positions of NBL are comparatively worse than that of other CBs. It predicts that NBL may not maintain the confidence of shareholders, depositors and its all customers if it cannot increase its volume even in future.”

Bhattarai Shama(2008), in her study “Implementation of Directives Issued by Nepal Rastra Bank: A Comparative Study of Nepal SBI Bank Limited and Nepal Bangladesh Bank Limited” has made an attempt to analyze various aspects of NRB Directives with respect to Capital Adequacy and Loan Classification and Provisioning. As per her view the process of continual review and classification of loans and advances enables Banks to monitor the quality of their loan portfolios and to take remedial action to counter deterioration in the credit quality of their portfolios.

She concluded that with the new provisions the Banks will have its provision amount increasing in coming years and subsequently profitability of the Banks will also come down. However, the true picture of the quality of the assets will be painted in the coming years to come. She recommends, “The Banks should be very careful while analyzing the paying capacity of its credit clients. With longer period of past due, the Bank will end up increasing its provisions which will keep the bottom line low if the Bank is not careful.”

Khadka Raja Ram(2008), in his thesis on “A study on the Investment Policy of Nepal Arab Bank Limited in comparison to other Joint Venture Banks of Nepal” has concluded that NABIL is comparatively less successful in on balance sheet utilization as well as off balance sheet operations than that of other JVBs. Mr. Khadka warned that in coming days NABIL may be behind in the competitive market if it cannot mobilize its resources as efficiently as other JVBs. He recommended, “The Bank must utilize depositor’s money as Loans and Advances to get success in competitive Banking environment. The largest item of the Bank in the asset side is Loans and Advances. Negligence in administrating this asset could be the main cause of a liquidity crisis in the Bank and one of the main reasons of a Bank failure.”

Khadka Dinesh Kumar (2009), In this thesis Non Performing Assets of Nepalese Commercial Banks with an objectives to examine the level of NPAs in total assets, total deposit and total lending of Nepalese Commercial Banks. He has also showed that the effect of non -performing assets on return on assets and return on equity of Nepalese commercial Banks.

He said that despite of being loans and advances more profitable then other assets, it creates risk of non-payment for the Bank. Such risk is known as credit risk or default risks. Therefore, like other assets the loans and advances are classified into performing and non performing assets on the basis of overdue schedule. Escalating level of NPAs has been becoming great problem in banking business in the world. In this context Nepal cannot be run off from such situation; the level of NPAs is Nepalese Banking

business in very alarming. It is well known fact the problem of swelling nonperforming assets and the issue is becoming more and more unmanageable day by day. We are well known different financial reports, news paper and news that the total NPA in Nepalese Banking system is about 35 billion, while it is very worse in case of two largest commercial Banks RBB and NBL.

Finally he concludes that the level of NPA in sampled Nepalese commercial Banks is not so alarming. The situation is quite satisfactory. But the increasing trend remain continue in coming days, the situation will be unmanageable and alarming. The commercial Banks could not give full attention towards supervising their lending and toward recovering their bad loans perfectly level of NPA has been increasing., The level of NPA of Nepal Bangladesh Bank Ltd., Nepal SBI Bank Ltd. and Bank of Kathmandu seems very unsatisfactory., if the situation not handing right now, it will be unmanageable and difficult to handle.

He recommends that the Banks should have to take enough collateral while lending loan, appropriate financial analysis, supervision, monitoring and control should be done. Lastly those Banks having high level of NPA should take immediate action towards recovering their bad loan as possible as soon. In case of default to repay the loan by borrower, the Banks should dispose off the collateral taken from the borrower and recover principal and interest amount.

Ojha Lila Prasad (2009), has carried out research on “Lending Practices: A study on Nabil Bank Limited, Standard Chartered Bank Nepal Limited and Himalayan Bank

Limited” His main objectives of study are to analyze, the various aspects of Bank’s lending in various sector of economy, the individual Bank’s performance regarding the lending quantity, quality, efficiency and its contribution in total income. The problems, conclusion and recommendation figured out by him in this thesis are discussed as below.

He stated that, over liquidity caused due to lack of good lending opportunities, risk arising due to mismanagement of lending portfolio, increasing non-performing assets etc is some of the problems that is facing by Nepalese Banking sector. His main objective is to analyze the various aspects of Bank’s lending in various sector of economy, the individual Bank’s performance regarding the lending quantity and quality.

He concludes “The highest growth rate, proportionately high volume of loans and advances, the best contribution in priority and agricultural sector and the high level of deposits mobilization of HBL has put this Bank in the top position in the lending function. However the better activity ratio of SCBNL has proved this Bank the best in managing the lending portfolio according to the demand of profit oriented business. The high volume of lending activities and high volume of productive sector loan of NABIL has put the Bank in the top position in absolute terms. The increasing provision on loan loss and high volume of non-performing assets in NABIL & HBL certainly attracts the high attention of any person interested with these Banks. The high volume of NPA of HBL may have caused due to the failure of industrial and

agricultural sector. NABIL's increased NPA may have caused due to the accumulated bad debts that is kept behind the curtain to show the high efficiency of management.”

He suggested that following the normal guidelines of NRB and acting upon this also reduce many of the credit risk arising from borrowers. He recommended Banks to be more cautious and realistic while granting loans and advances. As suggested by him, the major solution of reducing the risk is to avoid lending in more risky area until the Bank does not fully satisfy itself regarding the future viability of the project. He further suggested that the establishment of Asset Management Co. (AMC), which helps commercial Banks in collecting their debts and improving their credit rating efficiency, should be initiated. As per his opinion, lack of proper credit appraisal, default by blacklisted borrower and professional defaulter, the over confidence in commercial Banks regarding credit appraisal efficiency and negligence in taking information from credit information bureau has caused many of the bad debts in these Banks.

Shrestha Sabitri(2009), in her thesis “Impact and Implementation of Nepal Rastra Bank (NRB)'s Guidelines (Directives) on Commercial Banks: A study of Nabil Bank Limited and Nepal SBI Bank Limited” has tried to find out the impact of NRB directives on commercial Banks. She has also made effort to find out whether the directives are actually implemented and are being monitored by NRB or not. She has stated that both NABIL and Nepal SBI are implementing the NRB directives.

She concludes “All the changes in NRB directives made both positive and negative impacts on the commercial Banks. Even though this study is limited to only two sample i.e. Nabil Bank and Nepal SBI Bank, among entire population, it clears the new directives issued by NRB make good impact more than bad impact on the various aspects of the Banks. It can be seen that the provision has been changed and the increased provisioning amount has decreased the profitability of commercial Banks. Apart from, loan exposure has been cut down to customers due to the borrower limits have been brought down by NRB. Therefore reduction in loan amount results to decrease the interest income from loans, which will decrease the profits of the Banks in coming years. Decreasing profitability push towards lesser dividends to shareholders and lesser bonus to employees. Not only the negative sides but also there are positive sides of new directives. Recently the problems of Banks are increasing operating cost and decreasing loan amount resulting decrease in profits of the Banks. But it shows it is only for short term because the directives are more effective to protect the Banks from bad loans, which protect the Banks from Bankruptcy as well as protection of deposits of depositors. Increase in capital adequacy ratio strengthen the Bank’s financial position, loan related provision will made safety of loans except the risk reducing provisions will protect the Bank from liquidation. Above all, it can be concluded that newly issued directives are more effective than previous one although it has brought some problems towards Banks. To decrease the decreasing profits of the Banks, they should research the alternatives such

like more investments in other business; Bank should adopt new technology according to the demand of time and must not depend on only interest income for profits.”As the Banks experience many difficulties in recovering the loans and advances and their large amount is being blocked as non performing assets, she suggested that there is an urgent need to work out a suitable mechanism through which the overdue loan can be realized.

The internationally acceptable level of NPA is said to be less than 5% on total loan and advances. Out of 29 commercial Banks, 15 Banks have less than 5% NPA. NPA level of other five Banks is quite high and above the standard average. Similar situation is the agricultural development Bank and some other non Bank financial institutions. The private sectors Bank have grown up with the different and improved Banking culture. The same culture is applied in the credit operation and it enables to manage their credit with possible stringent manner is most of the private sectors Bank. However, all private sector Banks are not at par which have been seen from the above table. Even private sector Banks are also carrying their NPA up to almost 40% of their credit portfolio.

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 has been discussed but no research was found in detailed analysis of non-performing loan and loan loss provisioning of commercial Banks. Hence the researcher had attempted to fill this research gap by taking reference of Nabil Bank Limited, Nepal Investment Bank Ltd. and Nepal Bangladesh Bank Ltd. This research will be able to deliver some of the present issues, latest information and data regarding loan classification and loan loss provisioning. After reviewing the relevant literatures, the next chapter concentrates in the research methodology applied in the study.

CHAPTER-III

RESEARCH METHODOLOGY

Research Methodology is a diagnostic approach of research and is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It helps in studying the entire research work in easy manner and also in presenting report in an understandable way. It includes wide range of methods, including a quantitative technique for analysis of data and information collected. Therefore, research methodology refers to the methods and techniques used in collection, tabulation and analysis of data and information collected to achieve the objective of the study. The main objective of this research is to analyze, examine and interpret the data and information to come at appropriate decision by giving conclusions and suggestions. The major components of research methodologies followed in the course of this study are

- Research design
- Size of population and sample
- Source of data
- Data collection techniques
- Data analysis tools.

Research is a systematic inquiry of any particular topic and methodology is the method of doing research in a well manner. Hence research methodology is the

systematic study of research problem that solves them with some logical evidence.

The research methodology adopted in the present study as discussed as below:

3.1 Research Design

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 answers to research questions and to control variance. This research will follow analytical and descriptive research design.

3.2 Size of Populations and Sampling

Population refers to the entire group people, events or things of interest that a researcher wishes to investigate. A sample represents only a part of a universe (quantity). In sampling method only tiny part of the whole aspect of matter is considered and conclusion about the entire aspect is done on that basis. Since this study is about loan classification and loan loss provisioning of commercial Banks, the population for this study comprised all the licensed commercial Banks of the country. Therefore, all the commercial Banks are the population of the study. The census of the population is neither feasible nor desirable for the study of this nature that is why a sample from the population has been selected for the purpose of this study.

A list of licensed commercial Banks was obtained from NRB. There are altogether 29 commercial Banks in Nepal. The commercial Banks of Nepal can be categorized into two types namely Public Sector and Private Sector. Public sector Banks include three old Banks NBL, RBB and ADBL and private sector Banks comprise remaining 26

Banks. Out of the total population following 3 commercial Banks were selected as samples for this study by using judgmental sampling method.

⇒ *Nabil Bank Limited (NABIL)*

⇒ *Nepal Investment Bank Limited (NIBL)*

⇒ *Nepal Bangladesh Bank Limited (NBBL)*

3.3 Sources of Data

Both primary and secondary data has been used in this study. Bank employees are the primary sources of data and following are the secondary sources of data used in the study.

⇒ Annual reports, newsletter of the selected Banks

⇒ Laws, guidelines and directives regarding the subject matter.

⇒ Text books

⇒ Journals, Magazines, and other publications

⇒ Unpublished thesis and dissertation

⇒ Various reports published by NRB, CIB etc

⇒ Various related websites

3.4 Data Collection Techniques

Primary data can obtained through questionnaire, direct interviews and telephonic inquires. But in this thesis, the annual reports of NABIL, NIBL & NBBL are collected from concerned Banks. Various publications of NRB are collected from branch office of NRB Birgunj. The reference of NRB directives and guidelines has been executed

from Nabil Bank Limited and website of NRB. Various reports, textbooks, journals, and unpublished dissertation have been obtained by visiting Shankar Dev Campus, Kathmandu and TU Central Library.

3.5 Data Analysis Tool

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 table and charts. For analysis purpose different kinds of appropriate mathematical, statistical and financial tools have been applied. Further to represent the data in simple form diagrams and graphs have also been used. The data collected from different sources are recorded systematically and identified.

3.5.1 Financial Tools

Financial tools are 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 firm by properly establishing relationship between the items of the balance sheet and profit and loss account.” “Financial analysis is the use of financial statements to analyze a company’s financial position and performance and to assess future financial performance.”

3.5.1.1 Ratio Analysis

Ratio Analysis is the widely used tool of financial analysis. A ratio is simply one number expressed in terms of another and as such it expresses the numerical or quantitative relationship between two variables. 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 financial ratios” Even though there are many ratios, only those ratios have been calculated which are related to the subject matter. Following ratios have been computed and analyzed in this study.

Loans and Advances to Total Assets Ratio

Loans and advances of any commercial Banks represent the major portion in volume of total assets. The ratio of loans and advances to total assets measures the volume of loans and advances in the structure of total assets. The high degree of ratio indicates the good performance of the Banks in mobilizing its fund by way of lending functions. However in its reverse side, the high degree is representative of low liquidity ratio. Granting loans and advances always carries a certain degree of risk. Thus this asset of banking business is regarded as risky assets. Hence this ratio measures the management attitude towards risky assets. The low ratio is indicative of low

productivity and high degree of safety in liquidity and vice versa. This ratio is calculated as follows

$$\text{Loans and advances to total asset ratio} = \frac{\text{Loans and advances}}{\text{Total Asset}}$$

Loans and Advances to Total Deposit Ratio (CD Ratio)

The core banking function is to mobilize the funds obtained from the depositors to borrowers and earn profit and CD ratio is the fundamental parameter to ascertain fund deployment efficiency of commercial Bank. In other words this ratio is calculated to find out how successfully the Banks are utilizing their total deposits on credit or loans and advances for profit generating purpose as loans and advances yield high rate of return. Greater CD ratio implies the better utilization of total deposits and better earning, however, liquidity requirements also needs due consideration. Hence 70%-80% CD ratio is considered as appropriate. This ratio is calculated by dividing total credit by total deposit of the Bank.

$$\text{Loans \& Advances to Total Deposit Ratio} = \frac{\text{Loans and advances}}{\text{Total Deposit}}$$

Non-Performing Loans to Total Loans and Advances Ratio

This ratio determines the proportion of non-performing loans in the total loan portfolio. Higher ratio implies the bad quality of assets of Banks in the form of loans and advances. Hence lower NPL to total credit ratio is preferred. As per international standard only 5% NPL is allowed but in the context of Nepal 10% NPL is acceptable.

It is calculated as follows:

$$\text{Non-Performing loans to total loans and advances} = \frac{\text{Non Performing Loans}}{\text{Total Loans Advances}}$$

Loan Loss Provision to Total Loans and Advances 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 non-performing loan, higher provision for loan loss reflects increasing non-performing loan 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 efficiently it manages loan and advances and makes efforts to cope with probable loan loss. Higher ratio implies, higher portion of NPL in the total loan portfolio. This ratio is calculated as follows:

$$\text{Loan Loss Provision Ratio} = \frac{\text{Loan Loss Provision}}{\text{Total Loans Advances}}$$

Provision Held to Non-performing loan

This ratio determines the proportion of provision held to non-performing loan of the Bank. 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 safeguarded against future contingencies that may create due to non-performing loan or in other words

Banks have cushion of provision to cope the problem that may be cause due to NPL. Hence higher the ratio better is the financial strength of the Bank. This ratio is calculated as follows:

$$\text{Provision Held to Non performing loan} = \frac{\text{Total Loan Loss Provision}}{\text{Non performing Loan}}$$

Return on loans and advances

This ratio indicates how efficiently the Bank has employed its resources in the form of loans and advances. It is the ratio of net profit and total loans and advances of a Bank. Net profit refers to that profit which is obtained after all types of deduction like employee bonus, tax, provision etc. Hence this ratio measures Bank's profitability with respect to loans and advances. Higher the ratio better is the performance of the Bank. It is calculated as below:

$$\text{Return on loans and Advances} = \frac{\text{Net Profit}}{\text{Total Loans Advances}}$$

3.5.2 Statistical Tools

Statistical tools are the mathematical techniques used to facilitate the analysis and interpretation of numerical data. "Statistical Analysis is one particular language, which describes the data and makes possible to talk about the relations and the difference of the variables." Following statistical tools have been used in this study.

3.5.2.1 Percentage

A percent is a number of hundredth parts one number to another. Uses of percentages make the data much simpler and grasp. It is the simplest statistical device used in

interpretation of phenomenon. It can reduce everything to a common base and thereby helps in meaningful presentation. Mathematically, let A represent the base used for comparison, B represent the given data to be compared with the base, then the percentage of given number in the base may be calculated as

$$\text{Percentage (P\%)} = \frac{B}{A} \times 100$$

3.5.2.2 Measures of Central Tendency/Mean

Measures of central value are simple statistical treatments of distribution that attempts to find the single figure to describe the entire distribution. It is the best possible value of a group of variables that singly represents to whole group. In the statistical analysis the central value falls within the approximately middle value of the whole data. Among the several tools of measuring central value, the mean has been used in this analysis where and when necessary. The mean is the arithmetic average of a variable.

Arithmetic Mean of a series is given by

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

3.5.2.3. Measures of Dispersion

Dispersion measures the variation of the data from the central value. The central value alone is not enough to analyze the quality of data regarding its variability. With the light of dispersion, an average becomes more powerful and meaningful. Following tools of measuring dispersion has been used in this study.

3.5.2.4 Standard Deviation

Standard deviation (S.D.) is the most popular and the most useful measure of dispersion. It indicates the ranges and size of deviance from the middle or mean. It measures the absolute dispersion. Higher the value of standard deviation higher is the variability and vice versa. It is the positive square root of average sum of squares of deviations of observations from the arithmetic mean of the distribution.

It can be calculated as follows

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

3.5.2.5 Coefficient of Variation

The percentage measure of coefficient of standard deviation is called coefficient of variation. The less is the C.V the more is the uniformity and consistency and vice versa. Standard deviation gives an absolute measure of dispersion. Hence where the mean value of the variable is not equal it is not appropriate to compare two pairs of variables based in S.D. only. The coefficient of variation measures the relative measures of dispersion, hence capable to compare two variables independently in terms of their variability.

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

3.5.2.6 Correlation Coefficient (r)

Correlation refers to the degree of relationship between two variables. Correlation coefficient determines the association between the dependent variable and

independent variable. If between the variables, increase or decrease in one cause increase or decrease in another, then such variables are correlated variables. “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 is accompanied by the change of another variable.” There are different techniques of calculating correlation coefficient. Among various techniques we have used Karl Pearson coefficient of correlation.

It is calculated as follows:

$$\text{Correlation Coefficient (r)} = \frac{\sum xy}{N\sigma_x \sigma_y}$$

Where,

$$x = X - \bar{X} \qquad y = Y - \bar{Y}$$

σ_x = Standard Deviation of Series X

σ_y = Standard Deviation of Series Y

N = No. of pairs of observation

On simplification of the equation of r, we obtain the following formula for computing r.

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}}$$

The Karl Pearson Coefficient of correlation always falls between -1 to +1. The value of correlation in minus signifies, the negative correlation and in plus signifies the positive correlation. If,

$r = 0$, There is no relationship between the variables

$r < 0$, There is negative relationship between the variables

$r > 0$, There is positive relationship between the variables

$r = +1$, The relationship is perfectly positive.

$r = -1$, The relationship is perfectly negative.

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.

3.5.3 Diagrammatic and Graphical Representation

Diagrams 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 charts and graph have been used for presentation and analysis of data.

After highlighting the research methodology, the next chapter concentrates on presentation and analysis of the study.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

In this section raw form of data collected from various sources are changed into an understandable presentation using financial as well as statistical tools supported by diagrams and graphs as mentioned in the previous chapter. 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 Loans and Advances to Total Asset Ratio

Loans and advances of any commercial Banks signify the major portion in volume of total assets. The ratio of loans and advances to total assets measures the volume of loans and advances in the structure of total assets. The high degree of ratio indicates the good performance of the Banks in mobilizing its fund by way of lending functions. However in its other side, the high degree is representative of low liquidity ratio. Loans and advances always carry a certain degree of risk. Thus this asset of banking business is regarded as risky assets. Hence this ratio measures the management's attitude towards risky assets. The low ratio is indicative of low productivity and high degree of safety in liquidity and vice versa.

For the 1st objective of the study, the data presentation is concern on the following table. The main contributing factor for NPA is Loans and Advance on Total Assets.

Table No. 4.1.1

Loans & Advances to Total Asset Ratio (%)

In Million Rs.

Year	NIBL			NABIL			NBBL			
	Loans & Advances	Total Asset	Ratio (%)	Loans & Advances	Total Asset	Ratio (%)	Loans & Advances	Total Asset	Ratio (%)	
2005	7338	13255	55.36	8549	16745	51.05	9645	14258	67.65	
2006	10453	16064	65.07	10947	17064	64.15	9627	13283	72.48	
2007	13178	21330	61.78	13279	22330	59.47	9796	12959	75.59	
2008	17769	27591	64.40	15903	27253	58.35	5855	10118	57.86	
2009	36241	53010	68.37	27590	43867	62.89	7025	13560	51.81	
Mean			63.00				59.18			
S.D			4.36				4.59			
C.V			6.92				7.75			

(Source : Annual Reports & Websites of Concerned Banks)

The table no.4.1.1 exhibits the loans and advances to total assets of three Banks for five consecutive years. This ratio shows fluctuating trend of all three Banks. The mean ratio of NIBL, NABIL and NBBL stand for 63.25%, 57.31% and 66.87% respectively. Hence among the three Banks, NBBL has the highest proportion of loans and advances in the total asset structure followed by NIBL and then NABIL. This infers

that NABIL has the lowest degree of investment in risky assets. The management of NABIL has managed to minimize the risk assets as they have invested higher proportion of their asset in risk free zone or nominally risky assets like treasury bills, debentures, National Saving Bonds (NSBs) etc.

The standard deviation of NIBL, NABIL and NBBL are 4.46, 6.18 & 8.18 and C.V.s are 7.05%, 10.78% & 12.23% respectively (Appendix 1). Thus it can be interpreted that NABIL and NBBL has higher deviation with higher degree of variation in this ratio. Even though this ratio is least of NIBL; it has the most consistent ratio and the least deviation during the study period. However, NABIL is considered to be moderate in terms of deviation and variability of ratio during the study period.

4.1.2 Loans and Advances to Total Deposit Ratio (CD ratio)

This ratio is often called CD ratio (Credit Deposit ratio) in banking terms. The core banking function is to mobilize the funds obtained from the depositors to borrowers and earn profit, thus, CD ratio is the fundamental parameter to ascertain fund deployment efficiency of commercial Bank. In other words this ratio is calculated to find out how successfully the Banks are utilizing their total deposits on credit or loans and advances for profit generating purpose as loans and advances yield high rate of return. Greater CD ratio implies the better utilization of total deposits and better earning. However, liquidity requirements also needs due consideration. To safe guard the Bank's image, Banks have to maintain liquidity so as to pay off depositor's money on demand, thus, a balance of assets must be stroked to ensure both profitability and

liquidity. As per Banking practice and followed by standard norms, 70%-80% CD ratio is considered as appropriate. This ratio is calculated by dividing total credit or loans and advances by total deposit of the Bank.

Table No. 4.1.2

Loans and Advance to Total Deposit Ratio (CD Ratio)

In Million Rs.

Year	NIBL			NABIL			NBBL				
	Deposit	Loans & Advances	Ratio (%)	Deposit	Loans & Advances	Ratio (%)	Deposit	Loans & Advances	Ratio (%)		
2005	11525	7338	63.67	14119	8549	60.55	12807	9645	75.31		
2006	14255	10453	73.32	14587	10947	75.04	12125	9627	79.40		
2007	18927	13178	69.62	19347	13279	68.64	13015	9796	75.26		
2008	24488	17769	72.56	23342	15903	68.13	9464	5855	61.86		
2009	46698	36241	77.61	37348	27590	73.87	9995	7025	70.28		
Mean			71.36	Mean			69.25	Mean			72.42
SD			4.61	SD			5.14	SD			6.02
CV			6.46	CV			7.42	CV			8.31

(Source: Annual Reports & Websites of Concerned Banks)

Table no.4.1.2 exhibits the loans and advances to total deposit of three Banks for five consecutive years. The mean ratio of NIBL, NABIL and NBBL is 71.36%, 69.25% & 72.42% respectively. Hence among the three Banks, NBBL has the highest proportion of loans and advances in the total deposit followed by NIBL & NABIL. It signifies that NIBL & NBBL have been ahead in utilizing depositor's money on loans and

advances with the objective to earn profit. This consists that NABIL has low investment in the form of loans and advances in comparison to them. The management of NABIL is highly concerned over risk as they have invested higher proportion of their deposit in risk free or nominally risky assets like treasury bills, debentures, National Saving Bonds (NSBs) etc.

The standard deviation of NIBL, NABIL and NBBL are 4.61, 5.14 & 6.02 and C.V.s are 6.46%, 7.42% & 8.31% respectively. (Appendix 2) Thus it signifies that NABIL & NBBL have higher deviation with higher degree of variation in this ratio. Even though this ratio is least of NIBL; it has the most consistent ratio and the least deviation during the study period.

4.1.3 Non-Performing Assets (Loans) to Total Loans and Advances Ratio

This ratio determines the proportion of non-performing assets in the total loan portfolio. As per NRB directives the loans falling under category of substandard, doubtful and loss are regarded as non-performing loan. Higher ratio entails the bad quality of assets of Banks in the form of loans and advances. Hence lower NPA to total credit ratio is preferred. As per international standard only 5% NPL allowed but in the context of Nepal maximum 10% NPA is acceptable.

Table No. 4.1.3**Non Performing Assets (Loans) to Loans & Advances (%)**

In Million Rs.

Year	NIBL			NABIL			NBBL				
	NPL	Loans & Advances	Ratio (%)	NPL	Loans & Advances	Ratio (%)	NPL	Loans & Advances	Ratio (%)		
2005	181	7338	2.47	287	8549	3.36	1042	9645	10.80		
2006	281	10453	2.69	145	10947	1.32	1832	9627	19.03		
2007	272	13178	2.06	183	13279	1.38	2927	9796	29.88		
2008	422	17769	2.37	178	15903	1.12	2236	5855	38.19		
2009	200	36241	0.55	224	27590	0.81	2365	7025	33.67		
Mean			2.03	Mean			1.60	Mean			26.31
S.D			0.77	S.D			0.91	S.D			10.01
C.V			37.93	C.V			56.88	C.V			38.04

(Source : Annual Reports & Websites of Concerned Banks)

Table no.4.1.3 exhibits the ratio of non-performing loans to loans and advances of NIBL, NABIL and NBBL for five consecutive years. The figure represented in the above table no. 3 shows that NBBL has the highest ratio throughout the study period and also shows increasing trend. NABIL shows the least ratio during the study period. NIBL is moderate in this ratio and strive to maintain the NPA ratio below 3%. NABIL's decreasing trend of NPA is the result of effective credit management of Bank and its efforts of recovering bad debts through establishment of Recovery Cell. The mean non-performing loan to total loan ratio of NIBL, NABIL & NBBL are

2.06%, 1.60%, and 26.31% respectively. This ratio of NBBL is significantly high in comparison to other two Banks and portrays the critical condition of the banks. NPA of NBBL is much higher than the acceptable standard of 10%. NIBL and NABIL have been able to maintain the NPA level below 5% which is within prescribed international standard.

The standard deviation of NIBL, NABIL and NBBL are 0.77, 0.91 & 10.01 and C.V.s are 37.93%, 56.88% & 38.04% respectively (Appendix 4). Thus it signifies that NIBL has the least deviation but moderate degree of variation in this ratio. Among the three Banks, NABIL is has highest moderate deviation & and highest variability and NBBL has the highest deviation and the moderate variation during the study period. Since NPA is one of the causes of banking crisis, NBBL declared problematic and has been given serious attention to come over from high NPA.

4.1.4 Loan Loss Provision to Total Loans and Advances 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 non-performing loan, higher provision for loan loss reflects increasing non-performing loan 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 efficiently it manages loan and advances and makes efforts to cope with probable loan loss. Higher ratio implies, higher portion of NPL in the total loan portfolio.

Table 4.1.4

Loan Loss Provision to Total Loans & Advances (%)

In Million Rs

Year	NIBL			NABIL			NBBL				
	LLP	Loans & Advances	Ratio (%)	LLP	Loans & Advances	Ratio (%)	LLP	Loans & Advances	Ratio (%)		
2005	208	7338	2.83	359	8549	4.20	995	9645	10.32		
2006	327	10453	3.13	361	10947	3.30	1839	9627	19.10		
2007	402	13178	3.05	356	13279	2.68	2971	9796	30.33		
2008	483	17769	2.72	357	15903	2.24	2112	5855	36.07		
2009	602	36241	1.66	127	27590	0.46	1798	7025	25.59		
Mean			2.68	Mean			2.56	Mean			24.28
S.D			0.53	S.D			1.24	S.D			8.93
C.V			19.78	C.V			48.06	C.V			36.78

(Source: Annual Reports & Websites of Concerned Banks)

The above table no. 4.1.4 exhibits the ratio of loan loss provision to loans and advances of NIBL, NABIL and NBBL for five consecutive years. The figure represented in the above table no. 4 shows that NBBL has the highest ratio throughout the study period and also shows increasing trend. NABIL shows the least ratio during the study period, however, NABIL has been performing well from last five year as above ratio observed in decreasing trend. The mean loan loss ratio of NIBL, NABIL & NBBL are 2.68%, 2.56%, and 24.28% respectively. This ratio of NBBL is significantly high in comparison to other two Banks. Higher LLP is indicative of poor

and ineffective credit policy, higher proportion of non-performing asset and poor performance of the economy. Hence the greater ratio of NBBL suggest that there is high proportion of NPA in the total loans and advances & decreasing trend of loan loss provision ratio of NABIL explains that NABIL has been successful to reduce its non performing loan resulting to decreasing LLP. The standard deviation of NIBL, NABIL and NBBL are 0.53, 1.24 & 8.93 and C.V.s are 19.78%, 48.06% & 36.78% respectively (Appendix 3). Thus it signifies that NIBL has least deviation with least degree of variation in this ratio. Among the three Banks, NABIL is moderate in terms of deviation and NBBL has the higher deviation with moderate variability of ratio during the study period.

4.1.5 Provision Held to Non-Performing Loan Ratio

This ratio determines the proportion of provision held to non-performing loan of the Bank. 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 safeguarded against future contingencies that may create due to non-performing loan or in other words Banks have cushion of provision to cope the problem that may be cause due to NPL. Hence higher the ratio better is the financial position of the Bank.

Table 4.1.5**Provision Held to Non-Performing Loan (%) In Million Rs**

Year	NIBL			NABIL			NBBL				
	LLP	NPL	Ratio (%)	LLP	NPL	Ratio (%)	LLP	NPL	Ratio (%)		
2005	208	181	114.92	359	287	125.09	995	1042	95.49		
2006	327	281	116.37	361	145	248.97	1839	1832	100.38		
2007	402	272	147.79	356	183	194.54	2971	2927	101.50		
2008	483	422	114.45	357	178	200.56	2112	2236	94.45		
2009	602	200	301.00	127	224	56.70	1798	2365	76.03		
Mean			158.91	Mean			165.17	Mean			93.57
S.D			72.16	S.D			67.08	S.D			9.18
C.V			45.40	C.V			40.61	C.V			9.81

(Source: Annual Reports & Websites of Concerned Banks)

The above table no.4.1.5 exhibits the ratio of provision held to non-performing loan of NIBL, NABIL and NBBL for five consecutive years. The figure represented in the above table shows that NIBL has the highest ratio throughout the study period. NABIL and NBBL are moderate in this ratio. NBBL shows least ratio in compared to other three Banks. The mean ratio of NIBL, NABIL & NBBL are 158.91%, 165.17%, and 93.57% respectively. This ratio of NABIL is significantly high in comparison to other two Banks and portrays that the Bank has adequate provision against non-performing loan.

The standard deviation of NIBL, NABIL and NBBL are 72.16, 67.08 & 9.18 and C.V.s are 45.40%, 40.61% & 9.81% respectively (Appendix 6). Thus it signifies that NIBL has the highest deviation along with the highest degree of variation in this ratio. Among the three Banks, NABIL is moderate in terms of deviation and variability and NBBL has the least deviation and variability of ratio during the study period.

4.1.6 Return on loans and advances

This ratio indicates how efficiently the Bank has employed its resources in the form of loans and advances.

Table No. 4.1.6

Return on Loans & Advances (%) In Million Rs

Year	NIBL			NABIL			NBBL		
	Net Profit (Loss)	Loans & Adv.	Ratio (%)	Net Profit (Loss)	Loans & Adv.	Ratio (%)	Net Profit (Loss)	Loans & Adv.	Ratio (%)
2005	152	7338	2.07	455	8549	5.32	3	9645	0.03
2006	232	10453	2.22	520	10947	4.75	(650)	9627	(6.75)
2007	351	13178	2.66	635	13279	4.78	(1456)	9796	(14.86)
2008	501	17769	2.82	674	15903	4.24	393	5855	6.71
2009	900	36241	2.48	1135	27590	4.11	2472	7025	35.18
Mean			2.45	Mean		4.64	Mean		4.06
S.D			0.28	S.D		0.44	S.D		17.13
C.V			11.42	C.V		9.48	C.V		421.92

(Source: Annual Reports & Websites of Concerned Banks)

The above table no.4.1.6 exhibits the ratio of return on loans and advances of NIBL, NABIL and NBBL for five consecutive years. The figure represented in the above table no. 6 shows that NBBL has the highest ratio throughout the study period; however, the said ratio is in 2008 and occurred loss in 2005 and 2006. It shows negative return in these periods. NIBL is moderate in this ratio and shows increasing trend consistently for last five years. NABIL has a decreasing trend in profit. However, it has higher mean ratio. The mean ratio of NIBL, NABIL & NBBL is 2.45%, 4.64%, and 4.06% respectively. Since NBBL net profit is the highest among all the three Banks.

The standard deviation of NIBL, NABIL and NBBL are 0.28, 0.44, & 17.13 and CVs are 11.42%, 9.48% & 421.92% respectively (Appendix 5). Thus it signifies NIBL has least deviation along with moderate return. NABIL has the moderate deviation with the least degree of variation in this ratio. Among the three Banks, NBBL is in higher side terms of deviation & variability. NBBL has the highest deviation with the highest variability of ratio during the study period. Thus it can be concluded that even though NBBL has the highest exposure on loans and advances, the Bank has failed to earn return on loans and advances.

Following figure no. 1, 2 & 3 represents five years Performing Loans, Non Performing Loans and Loan Loss Provision of NIBL, NABIL & NBBL.

Figure No. 1

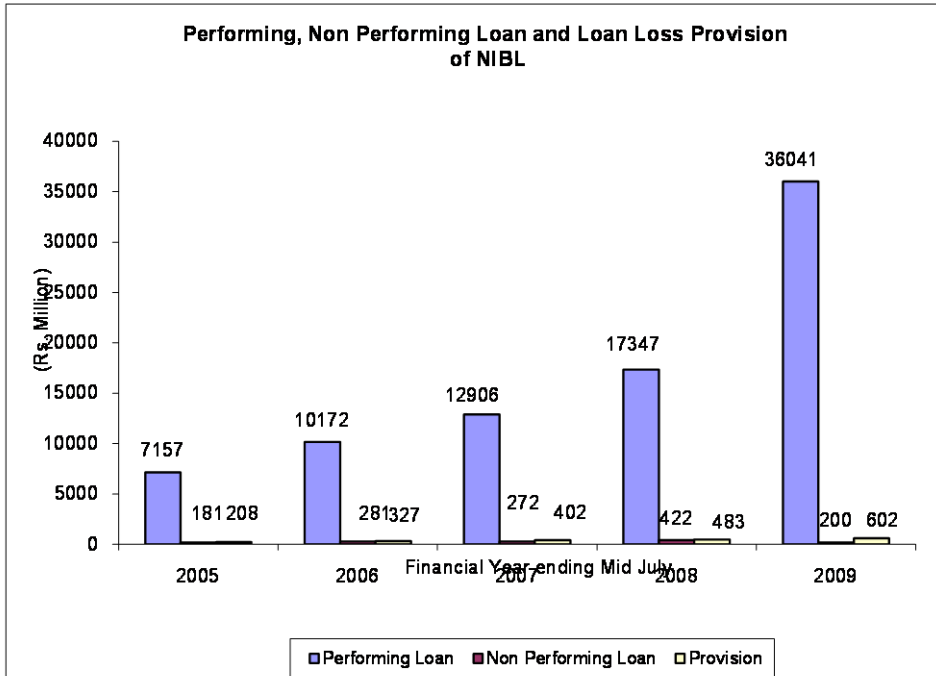


Figure No. 2

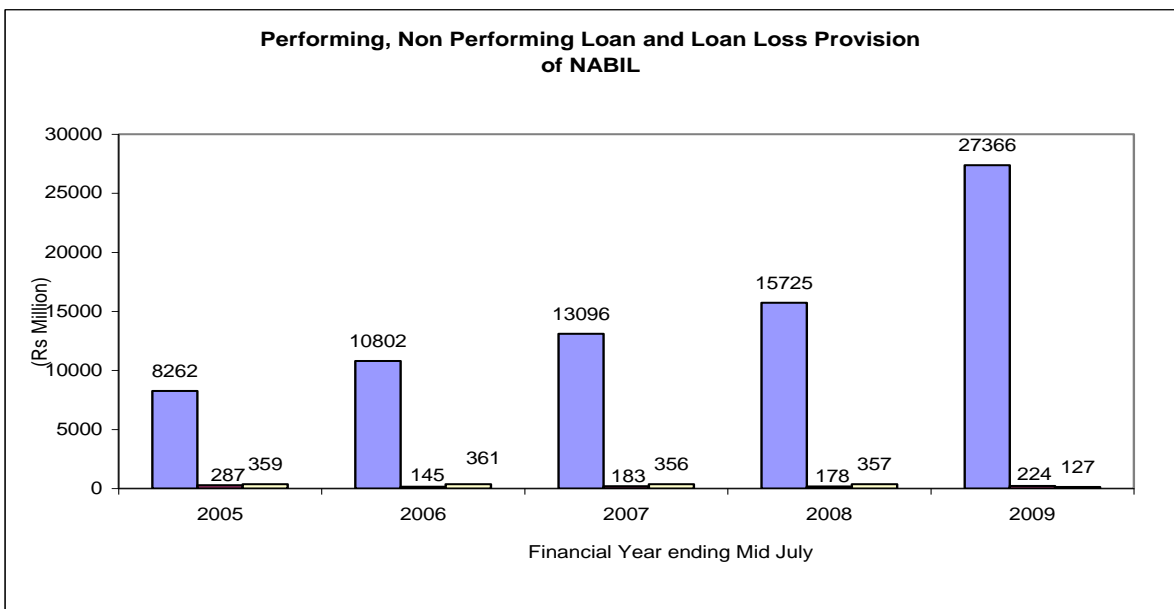
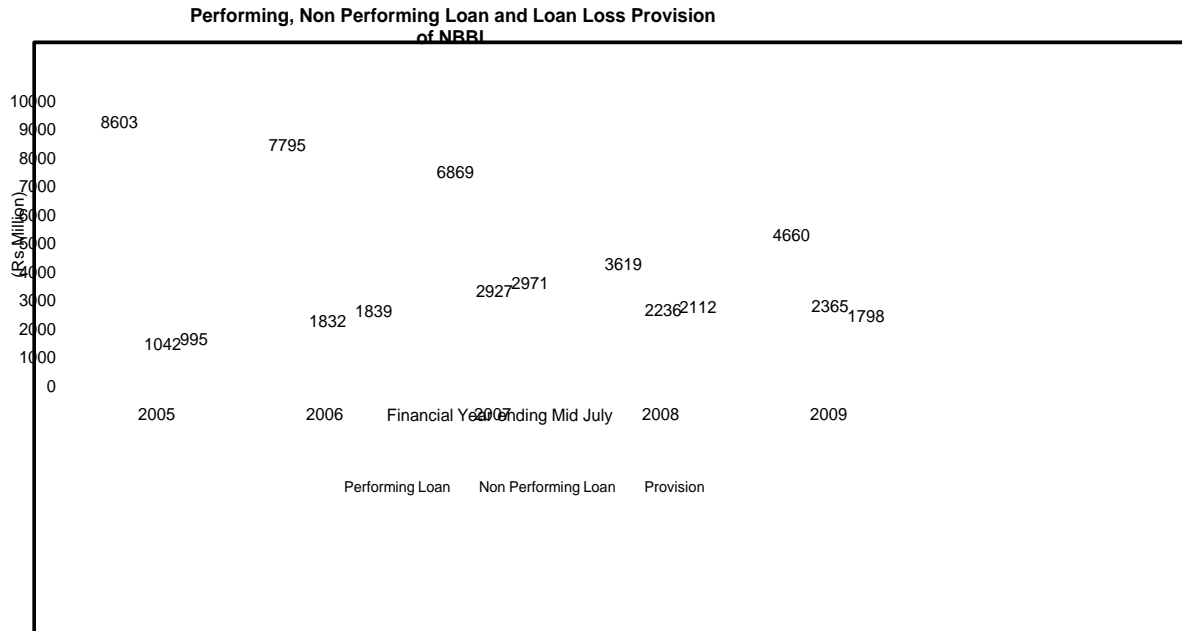


Figure No. 3



4.2 Correlation Analysis

4.2.1 Correlation between Loan Loss Provision and Loans and Advances

The correlation between LLP and loans and advances shows the degree of relationship between these two items. How a unit increment in loans and advances affect the loan loss provision is measured by this correlation. Here loans and advances is independent variable and LLP is dependent variable.

Table No.4.2.1

Correlation between LLP and Loans and Advances

Banks	Correlation Coefficient (r)	Probable Error (P.E.)	6 * P.E
NIBL	0.917	0.048	0.288
NABIL	-0.0933	0.299	1.79
NBBL	-0.0199	0.30	1.80

Above table no.4.2.1 explains the relationship between loans and advances and LLP. (Appendix 7, 8 & 9). Here the correlation coefficient of NIBL is 0.917 and its P.E. and 6P.E. is 0.048 and 0.288 respectively. The correlation coefficient of the bank seems significant. There is positive correlation between LLP and Loans and Advance. In other words, the total LLP of the above Bank is correlated with the loans and advances during the study period as increment in the total loan leads to increment in the LPP. The correlation coefficient of NABIL is -0.0933 and its P.E. are 0.299 and 6P.E. is 1.79 respectively. Since r less than P.E. & 6P.E, there is negative correlation between LLP and loans and advances of NABIL. Hence, the correlation coefficient of bank seems insignificant. The correlation coefficient of NBBL is -0.0199 and its P.E. and 6P.E. are 0.30 and 1.80 respectively. Since r is less than P.E. and 6P.E, there is negative correlation between LLP and Loan and Advance of NBBL. Hence, the correlation coefficient of bank seems insignificant due to high level of loan loss provision in the total loan portfolio.

4.2.2 Correlation between Loan Loss Provision and Non Performing Loans

The correlation between LLP describes the relationship between LLP and NPL. How a unit increases in NPA effect the LLP is exhibited by this correlation. Here non-performing loan is independent variable and LLP is dependent variable. As earlier mentioned NPA are the loan falling on the category of Substandard, Doubtful and Loss loan and the respective provisioning requirement is 25%, 50% and 100%. Higher the NPA higher will be the provisioning amount.

Table No. 4.2.2

Correlation between Loan Loss Provision and Non Performing Loan

Banks	Correlation Coefficient (r)	Probable Error (P.E.)	6 * P.E
NIBL	0.259	0.280	1.685
NABIL	0.212	0.287	1.722
NBBL	0.938	0.0361	0.217

Above table no. 4.2.2 explains the relationship between LLP and NPL. (See in Appendix 10, 11 & 12) Here all the three Banks have positive correlation between LLP and NPL. The positive correlation between LLP and NPL of three Banks i.e. NIBL, NABIL & NBBL. The increment in NPL leads to increment in LLP. The correlation coefficient of NIBL is 0.259 and its P.E and 6P.E are 0.280 and 1.685. Since correlation coefficient (r) is less than P.E. and 6 times the value of P.E., the

correlation coefficient is insignificant and there is no evidence of correlation. In other words, the total LLP of NIBL is not correlated with the non performing loan during the study period and provision increment is not due to non performing loan but because of 1% provision under good loan. The correlation coefficient of NABIL is 0.212 and its P.E. is 0.287 and 6P.E. is 1.722. In case of NABIL, r is lower than 6 times the value of P.E. Hence its correlation coefficient is said to be insignificant as the provision increment is not due to NPA as provision increases due to 1% provision under good loan. So it can be interpreted that there is good sign for the health of NABIL Bank. The correlation coefficient of NBBL is 0.938 and its PE and 6 P.E is 0.0361 and 0.217. Since r is greater than P.E. and 6P.E. There is positive correlation between NPL and LLP of NBBL as increment in the NPL leads to increment in the LPP.

4.2.3 Correlation between Loans and advances and Deposit

Deposit is one of the major items of liability side and loans and advances is the major item of asset side of balance sheet of any commercial Bank. Bank's disburses loans and advances through the funds received from the depositors. The correlation coefficient between loans and advances and deposit describes the degree of relationship between these two variables. Here deposit is independent variable and loans and advances is dependent variable. Hence how a unit increase in deposit impact in the volume of loans and advances is exhibited by this correlation coefficient.

Table No.4.2.3

Correlation between Loans and Advances and Deposit

Banks	Correlation Coefficient (r)	Probable Error (P.E.)	6 * P.E
NIBL	0.999	0.0006	0.0361
NABIL	0.994	0.0036	0.216
NBBL	0.978	0.0130	0.0785

The above table no. 4.2.3 shows the correlation coefficient, probable error and six times the value of three Banks (See in Appendix 13, 14 & 15). It shows there is high degree of positive correlation between loans and advances and deposit in all three Banks. The respective values of correlation coefficient of NIBL, NABIL and NBBL are 0.999, 0.994 and 0.978 which are greater than 6 times the value of their respective probable error. Hence it can be interpreted that the correlation between these three variables in NIBL, NABIL & NBBL are certain and significant. That means increase in volume of deposit leads to increment in loans and advances of above three banks.

4.5 Major Findings of the Study

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

- The average loans and advances to total asset ratio of NIBL, NABIL & NBBL during the study period is found to be 63.00%, 59.18% and 65.18% respectively. The relatively low ratio of NABIL is the indication of risk averse attitude of the management or they have the policy of investing low in the risky assets i.e. loans and advances. They have higher proportion of their investment in risk free or nominally risky asset like treasury bills, National Saving Bonds etc. Here this ratio is the highest of NBBL but issued loans and advances are not generating the desired income. NBBL shows the highest degree of deviation and variation while NIBL and NABIL have the most consistent ratio throughout the study.
- The core Banking function is to mobilize the funds obtained from the depositors and how successfully this function have been discharged by the Banks is measured by the ratio of loans and advances to total deposit ratio or simply CD ratio. The average CD ratio of NIBL, NABIL and NBBL during the study period is found to be 71.36%, 59.25% & 72.42% respectively. The average ratio of NIBL and NBBL is nearly same but that of NABIL is relatively lower. It signifies that NIBL & NBBL have been ahead in utilizing depositor's money on loans and advances with the objective to earn profit. This consists that NABIL has low investment in the form of loans and advances in comparison to them. The management of NABIL is highly

concerned over risk as they have invested higher proportion of their deposit in risk free or nominally risky assets like treasury bills, debentures.

- The analysis of non-performing loans to total loans revealed that, average NPA of NIBL, NABIL & NBBL is 2.03%, 1.60% & 26.31% of total loan respectively. That means 97.97%, 98.40% & 73.69% of total loan of NIBL, NABIL & NBBL is performing loan. Amongst three Banks, NBBL has significantly higher proportion of the non-performing loan in the total loans portfolio and this ratio also shows increasing trend, which exhibits the critical condition of the Bank.

- NIBL and NABIL have controlled the NPA level and strive to maintain below 5% which is within prescribed international Banking standard. During the study period this ratio is found moderate in NIBL but NPA is on increasing trend. However, NABIL has shown significant decrement and control over NPA which is the result of Banks effective credit management and its efforts of recovering bad debts through establishment of Recovery Cell. The average Loan Loss Provision ratio of NBBL is found to be significantly higher which is around 24.28% in average followed by NIBL of 2.68% and NABIL of 2.56%. Since higher ratio is an indication of higher non-performing loan in the total loans and advances NBBL's relatively higher ratio is the result of higher proportion of NPA in the total loan. Even though NABIL's average ratio is higher than that of NIBL. NIBL & NABIL show decreasing trend in this ratio which means both Bank's asset quality is improving. NBBL has the highest deviation and variation of the ratio followed by NABIL and then NIBL.

- The average ratio of provision held to non-performing loan of NIBL, NABIL & NBBL was found to be 158.91%, 165.17% & 93.57% respectively. Hence NABIL has significantly higher ratio in comparison to other two Banks, which exposes that the Bank has adequate provision against non-performing loan but this ratio of NBBL is comparatively lower. Even though NBBL has provided required provision on each category of NPA as per NRB directives, it has not enough provision against NPA if all the NPA goes in default. However this ratio shows increasing trend. NIBL is moderate in this ratio and has the least variability and NABIL shows the highest variability in this ratio.

- The main objective of commercial banks is to earn profit through mobilization of fund. The ratio of returns on loans and advances ratio revealed that NBBL seems to be failure to earn return on loans and advances in last two- three years. Even though NBBL has average return on loans and advances 4.06%. NABIL with an average of 4.64% return on loans and advances has the highest ratio as it is ahead in generating net profit. NIBL is moderate with an average of 2.45% return on loans and advances. NBBL has the highest variability followed by NIBL and then NABIL.

The correlation coefficient between LLP and loans and advances of NIBL, NABIL & NBBL is 0.917, -0.933 & -0.0199. Here correlation coefficient of NIBL is more than the value of 6 times P.E and even less than P.E., it insignificant and there is no evidence of correlation. In other words, the total LLP of the above bank is correlated with the loans and advances during the study period as increment in the total loan

leads to increment in the LPP. NABIL has negative correlation between LLP and loans and advances. Hence, the correlation coefficient of bank seems insignificant as provision increment not due to non performing loan but increment of 1% provision under good loan. NBBL has negative correlation between LLP and Loan and Advance. Hence, the correlation coefficient of bank seems insignificant. Negative correlation of NBBL is the result of high non-performing loans in the total loan portfolio. Hence the increase in provision of NBBL is not due to increment in loans and advances but due to increment in its non-performing loans.

- All three banks have positive correlation between LLP and NPL. The correlation coefficient between these two variables in NIBL, NABIL & NBBL is 0.256, 0.212 & 0.938. The correlation coefficient of NIBL and NABIL is insignificant. The reason behind this is relatively lower proportion of NPL in the total loan portfolio of NIBL & NABIL. There is positive correlation between NPL & LLP of NIBL. The coefficient of NBBL is significant as increment in the NPL leads to increment in the LPP.

- While analyzing correlation between loans and advances and deposit, it has been found that NIBL, NABIL & NBBL have high degree of positive correlation between these two variables. The respective correlation coefficient of NIBL, NABIL & NBBL is 0.999, 0.994 & 0.978 which is significant and reliable. That means increase in volume of deposit leads to increment in loans and advances of above three banks.

- From the trend analysis of NPL, it is found that NPL is increasing in case of NIBL & NBBL and in case of NABIL it is decreasing. The NPL of NABIL is decreasing at the rate of Rs 64.80 million every year and that of NIBL & NBBL is increasing at the rate of Rs 70.10 million and 433.10 million every year respectively. The decreasing trend of NPA in NABIL is due to its efforts towards good management of existing and new loan and recovering bad debts.

- Increasing non-performing loan is one of the burning problems of Nepalese Banking sector. Improper credit appraisal system, ineffective credit monitoring & supervision system, economic slowdown, borrower's misconduct, political pressure to lend to un-credit worthy parties etc are the major factors leading to non-performing assets. Setting up recovery cell, hiring Asset Management Company etc are some to the measures to resolve the problem of NPA. Loan classification and loan loss provision also helps to confront the problems thus created due to non-performing loans. Since loan loss provision is deducted from the profit of the Bank, increase in provision decrease the profit of the Bank by the same amount but this type of negative effect is only for short period. Once the Banks have adequate provision and sound credit management, the profitability will again gear up.

After the completion of analysis of data, the next chapter or the final chapter incorporates the summary, conclusions and recommendation regarding the subject matter.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Finally this chapter includes the summary, conclusions and recommendation based on the result of the analysis of the data.

5.1 Summary

National development of any country depends upon the economic development of the country and economic development is supported by financial infrastructure of that country. Banks constitute an important segment of financial infrastructure of any country. Thus, Banks play an important role in the economic development of the country as the issue of development always rests upon the mobilization of resources.

Banks deals in the process of canalizing the available resources to the needy sector causing overall economic development. This research is aimed at studying the non-performing loan and loan loss provisioning of commercial Banks. For this purpose, descriptive cum analytical research design was adopted. Out of the total population of 29 commercial Banks, three Banks were taken as sample using Judgmental Sampling Method. Nepal Investment Bank Limited was selected from private sector Banks and two joint venture Bank, NABIL Bank Limited and Nepal Bangladesh Bank Ltd. Both primary and secondary data have been used in the study. Primary data has been collected through direct interviews & telephonic interviews and annual reports, published articles and other publication forms the basis of secondary data. The data collected from various sources are recorded systematically and presented in

appropriate forms of tables and charts and appropriate mathematical, statistical, financial, graphical tools have been applied to analyze the data. The data of five consecutive years of the three selected Banks have been analyzed to meet the objective of the study. Every business dependent on credit sales or credit has a certain degree of default risk. The dealing of banks is centered on monetary matters. Hence, the default risk associated with it is evidently high. Loan loss provision is the fund, allocated for the purpose of safeguarding possible losses form the various loans. In other works, it is the cushion against possible losses form and it reflects the actual picture of assets (loan) quality of the bank. Loan loss provision 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 there is practice of showing net loan (Total Loans – Loan Loss Provision) in financial statements. The amount of loan loss provision is directly correlated to total credit of the Bank. The amount required for provisioning depends upon the level of NPAs and their quality. High amount of provision is an indication of that Bank's credit portfolio needs serious attention. One percent provision of total credit is an ideal position as it is the minimum requirement for all good loans. In Nepal, 1%, 25%, 50% & 100% provisioning should be made for Pass, Substandard, and Doubtful and Loss loans respectively.

There are so many risks associated with a lending. An extensive list of risk is given below. Most of the time and most of the Bankers of our society tend to compromise in

analyzing all the risks properly and then loan turns into bad. Some risks can be measured with the help of mathematical credit tools; however, some risks like regulatory, defalcation risks are quite difficult to measure and therefore needs in depth examination before finalizing a loan.

Bank is facing problem of NPA then it adversely affect the value of bank in terms of market credit. It will lose its goodwill and brand image and credit which have negative impact to the people who are putting their money in the banks.

Loans and advances of any commercial banks signify the major portion in volume of total assets. The ratio of loans and advances to total assets measures the volume of loans and advances in the structure of total assets. The high degree of ratio indicates the good performance of the banks in mobilizing its fund by way of lending functions. However in its other side, the high degree is representative of low liquidity ratio. Loans and advances always carry a certain degree of risk. Thus this asset of banking business is regarded as risky assets. Hence this ratio measures the management's attitude towards risky assets. The low ratio is indicative of low productivity and high degree of safety in liquidity and vice versa. The core banking function is to mobilize the funds obtained from the depositors to borrowers and earn profit and CD ratio is the fundamental parameter to ascertain fund deployment efficiency of commercial Bank. Greater CD ratio implies the better utilization of total deposits and better earning, however, liquidity requirements also needs due consideration.

As per NRB directives the loans falling under category of substandard, doubtful and loss are regarded as non-performing loan. Higher ratio of NPA implies the bad quality of assets of banks in the form of loans and advances. Hence lower NPL to total credit ratio is preferred. As per international standard only 5% NPL is allowed but in the context of Nepal 10% NPL is acceptable. 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 non-performing loan, higher provision for loan loss reflects increasing non-performing loan 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 efficiently it manages loan and advances and makes efforts to cope with probable loan loss. Higher ratio implies, higher portion of NPL in the total loan portfolio. Higher provision held ratio signifies that the Banks are safeguarded against future contingencies that may create due to non-performing loan or in other words Banks have cushion of provision to cope the problem that may be cause due to NPL. Hence higher the ratio better is the financial strength of the Bank

Today's banking industry is severely affected by the problem of NPA. Improper credit appraisal system, ineffective credit monitoring & supervision system, economic slowdown, borrower's misconduct, and overvaluation of collateral, political pressures to lend to un-creditworthy parties etc are the major factors leading to non-performing assets. Setting up recovery cell, hiring Asset Management Company etc are some to

the measures to resolve the problem of NPA. Loan classification and loan loss provision also helps to confront the problems thus created due to non-performing assets (loans). The directive regarding loan classification and loan loss provisioning is very important for maintaining sound financial health of the Banks. The provisioning directives leads to increment in provision amount of the Banks leading to decrement in profitability of the Bank but this is only for a short run. The recovery of loan has always been problem for banks and financial institution.

5.2 Conclusions

Liberalization of financial sector started in 1980s with the aim to streamline it. After that the financial sector widened with more Banks and financial institutions. Even the financial sector developed rapidly in quantity, but in terms of quality it is far behind the developed countries. Banks came into existence mainly with the objectives of collecting idle funds, mobilizing them into productive sector and causing an overall economic development. The Banker's have the responsibility of safeguarding the interest of the depositors, the shareholders and the society they are serving. Lending is the major function of any commercial Bank and it is the most income-generating asset of any commercial Bank but there is risk inherent in Bank's lending portfolio. In order to cover the risk inherent in the lending portfolio, Banks have to make loan loss provision by categorizing the loans into different category as per the NRB directives. Increasing non-performing assets (loan) is the serious problem of the Banking sector in Nepal. Non-performing asset debar the income flow of the Bank while claiming

additional resources in the form of provisioning and hinder further gainful investments.

It has been found that NBBL has very high portion of non-performing loan resulting to higher provision. Hence even the Bank has the highest investment in the most income generating asset i.e. loans and advances, it is in loss. The private sector Bank like NIBL and NABIL does not have higher non-performing loan and accordingly don't have higher provision. However, in recent last year NIBL's non-performing loan has shown significant increment and accordingly provision has also increased. Among the three Banks NABIL has the least non-performing loan and thus the least loan loss provision despite NIB has low average of NPA & LLP in comparison of last five years data. NABIL has been improving on NPA and LLP from last four years. NABIL is also a head in generating income. From these indicators it can be said that NABIL is the best among the three Banks. However NABIL seems less oriented towards lending. Hence the lower percentage of NPA and provisioning of NABIL is not only due to proper lending management function but also due to relatively lower investment in loans and advances.

In the conclusion it can be said that ineffective credit policy, political & board executive's pressure to lend to un-creditworthy borrowers, overvaluation of collateral are the major causes of mounting non-performing assets in the joint venture Bank like NBBL. Other factors leading to accumulation of NPAs are weak loan sanctioning process, ineffective credit monitoring & supervision system, economic slowdown,

borrower's misconduct etc. Continual review and classification of loans enables Banks to monitor quality of their loan portfolios and to take remedial action to counter deterioration in credit quality. In addition to this establishing recovery cell, hiring Asset Management Company are also measures to resolve the problem of NPL. The present loan classification and provisioning directive seems more stringent than the previous one. As a result more provision has to be apportioned leading to lesser profitability but this kind of negative impact is only for short period. Adequate provisioning strengthens the financial health of the Banks and makes them able to face any kind of future contingencies.

5.3 Recommendations

1. The high portion of non-performing loan accompanied by higher provision of NBBL indicates that the Bank's credit portfolio needs serious attention. Hence NBBL is recommended to take immediate remedial actions for recovering bad debts. Hiring Asset Management Company (AMC) is recommended for NBBL to resolve the problem of mounting non-performing loan.
2. Though NBBL's loan portfolio seems low in comparison to other Banks, their loan and advances are considered here to be lower as NBBL has stopped extending of loan and advances rather they are involved in recovery of bad debts and mounted NPA. NABIL's credit contribution to loans and advances is also relatively low. 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 on the national economy. Loans and advances on one hand is the highest income-generating asset and on the other hand it also helps to upgrade the economic health of the country. Hence NABIL is recommended to increase its investments in productive sector in the form of loans and advances.

3. It has been observed that the loans and advances of NBBL are decreasing and there were no further investment of deposit in recent years. Hence it is recommended for NBBL for exploring new areas of investment.
4. The main factors which leads to Non-Performing assets are improper credit appraisal system, ineffective credit monitoring and supervision system etc. Besides that negligence in taking information from Credit Information Bureau may also lead to bad debts. Hence all the three Banks are recommended to be more cautious and realistic while granting loans and advances. After advancing loans there should be regular supervision and follow up for proper utilization of loan.
5. It is recommended for the Banks to initiate training and development program for the employees to make them efficient and professional in credit appraisal, monitoring and proper risk management.
6. Following the directives of NRB and acting upon it also reduce many of the credit risk. Besides there are penalty implication on non-compliance of the

directives. Hence all the three Banks are recommended to adhere the directives and they are also suggested to come up with a stronger internal audit department to ensure that the directives are properly implemented.

7. 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 NPA.
8. The ratio of provision held to non-performing loan of NABIL is relatively lower in comparison to other two Banks. Even though NABIL has made provision for each category of loan as per NRB directives; the total provision amount is not enough in case all the non-performing goes on default or the loan has to be written off. Hence NABIL is recommended to increase this ratio by reducing non-performing loan.
9. It is often said that 'Prevention is better than cure'. Hence it is recommended for all the three Banks to take preventive measures before the loan goes to default. All the Banks are recommended to have an information system to gather all the possible information and activities about its borrowers so that necessary precautions can be taken in time.

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Calculation of S.D. and CV of Loans and Advances to Total Asset Ratio

Year/ Bank	NIBL			NABIL			NBBL		
Year	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²
2005	55.36	-7.64	58.31	51.05	-8.13	66.13	67.65	2.57	6.62
2006	65.07	2.07	4.30	64.15	4.97	24.68	72.48	7.40	54.79
2007	61.78	-1.22	1.48	59.47	0.29	0.08	75.59	10.51	110.50
2008	64.4	1.40	1.97	58.35	-0.83	0.69	57.86	-7.22	52.10
2009	68.37	5.37	28.88	62.89	3.71	13.75	51.81	-13.27	176.04
	$\sum X = 314.98$	$\sum (X-X)^2 =$	94.94	$\sum X = 295.91$	$\sum (X-X)^2 =$	105.33	$\sum X = 325.39$	$\sum (X-X)^2 =$	400.05

We have,

$$N = 5$$

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

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

$\sum X =$	314.98	295.91	325.39
$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$	$\frac{314.98}{5}$ =63	$\frac{295.91}{5}$ =59.18	$\frac{325.39}{5}$ =65.08
$\sum (X-X)^2 =$	94.94	105.33	400.05
$(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$	$= \sqrt{\frac{94.94}{5}}$ = 4.36	$= \sqrt{\frac{105.33}{5}}$ = 4.59	$= \sqrt{\frac{400.05}{5}}$ = 8.94
$(C.V) = \frac{\sigma}{\bar{X}} \times 100$	$= \frac{4.36}{63} \times 100$ = 6.92	$= \frac{4.59}{59.18} \times 100$ = 7.75	$= \frac{8.94}{65.08} \times 100$ = 13.74

Appendix 2

Calculation of S.D. and CV of Loans and Advances to Total Deposit Ratio

Year/ Bank	NIBL			NABIL			NBBL		
	Ratio(X)	X-X	(X-X)2	Ratio(X)	X-X	(X-X)2	Ratio(X)	X-X	(X-X)2
2005	63.67	-7.69	59.07	60.55	-8.70	75.62	75.31	2.89	8.34
2006	73.32	1.96	3.86	75.04	5.79	33.57	79.4	6.98	48.69
2007	69.62	-1.74	3.01	68.64	-0.61	0.37	75.26	2.84	8.05
2008	72.56	1.20	1.45	68.13	-1.12	1.25	61.86	-10.56	111.56
2009	77.61	6.25	39.11	73.87	4.62	21.38	70.28	-2.14	4.59
	$\sum X = 356.78$	$\sum (X-X)^2 =$	106.51	$\sum X = 346.23$	$\sum (X-X)^2 =$	132.18	$\sum X = 362.11$	$\sum (X-X)^2 =$	181.23
Mean	71.36			69.25	$\sum (X-X)^2 =$		72.42		
SD	4.61			5.14			6.02		
CV	6.46			7.42			8.31		

We have,

$$N = 5$$

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

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

$\sum X =$	356.78	346.23	362.11
$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$	$\frac{356.78}{5}$ =71.36	$\frac{346.23}{5}$ =69.25	$\frac{362.11}{5}$ =72.42
$\sum (X-X)^2 =$	106.51	132.18	181.23
$(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$	$= \sqrt{\frac{94.94}{5}}$ = 4.61	$= \sqrt{\frac{132.18}{5}}$ = 5.14	$= \sqrt{\frac{181.23}{5}}$ = 6.02
$(C.V) = \frac{\sigma}{\bar{X}} \times 100$	$= \frac{4.61}{71.36} \times 100$ = 6.46	$= \frac{5.14}{69.25} \times 100$ = 7.42	$= \frac{6.02}{72.42} \times 100$ = 8.31

Appendix 3

Calculation of S.D. and CV of LLP To Loans and Advances Ratio

Year/Bank	NIBL			NABIL			NBBL		
	Ratio(X)	X-X	(X-X)2	Ratio(X)	X-X	(X-X)2	Ratio(X)	X-X	(X-X)2
2005	2.83	0.15	0.02	4.20	1.62	2.64	10.32	-13.96	194.94
2006	3.13	0.45	0.20	3.30	0.72	0.52	19.1	-5.18	26.85
2007	3.05	0.37	0.14	2.68	0.10	0.01	30.33	6.05	36.58
2008	2.72	0.04	0.00	2.24	-0.34	0.11	36.07	11.79	138.96
2009	1.66	-1.02	1.04	0.46	-2.12	4.48	25.59	1.31	1.71
	$\sum X =$ 13.39	$\sum (X-X)^2 =$ 1.40		$\sum X =$ 12.88	$\sum (X-X)^2 =$	7.76	$\sum X =$ 121.41	$\sum (X-X)^2 =$	399.04
Mean	2.68			2.58			24.28		
SD	0.53			1.24			8.93		
CV	19.78			48.06			36.78		

We have,

$$N= 5$$

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

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

$\sum X =$	13.39	12.88	121.41
$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$	$\frac{13.39}{5}$	$\frac{12.88}{5}$	$\frac{121.41}{5}$
	=2.68	=2.58	=24.28
$\sum (X-X)^2 =$	106.51	132.18	181.23
$(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$	$= \sqrt{\frac{1.40}{5}}$	$= \sqrt{\frac{7.76}{5}}$	$= \sqrt{\frac{399.04}{5}}$
	=0.53	=1.24	=8.93
$(C.V) = \frac{\sigma}{\bar{X}} \times 100$	$= \frac{0.53}{2.68} \times 100$	$= \frac{1.24}{2.58} \times 100$	$= \frac{8.93}{24.28} \times 100$
	=19.78	=48.06	=36.78

Appendix 4

Calculation of S.D. and CV of NPL to Total Loan

Year/Bank	NIBL			NABIL			NBBL		
	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²
2005	2.47	0.44	0.20	3.36	1.76	3.10	10.80	-15.51	240.68
2006	2.69	0.66	0.44	1.32	-0.28	0.08	19.03	-7.28	53.06
2007	2.06	0.03	0.00	1.38	-0.22	0.05	29.88	3.57	12.72
2008	2.37	0.34	0.12	1.12	-0.48	0.23	38.19	11.88	141.04
2009	0.55	-1.48	2.18	0.81	-0.79	0.62	33.67	7.36	54.11
	$\sum X =$ 10.14	$\sum (X-X)^2 =$	2.94	$\sum X =$ 7.99	$\sum (X-X)^2 =$	4.08	$\sum X =$ 131.57	$\sum (X-X)^2 =$	501.61
Mean	2.03			1.60			26.31		
SD	0.77			0.91			10.01		
CV	37.93			56.88			38.04		

We have,

N= 5

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

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

$\sum X =$	10.14	7.99	131.57
$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$	$\frac{10.14}{5}$ =2.03	$\frac{7.99}{5}$ =1.60	$\frac{131.57}{5}$ =26.31
$\sum (X-X)^2 =$	2.94	4.08	501.61
$(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$	$= \sqrt{\frac{2.94}{5}}$ =0.77	$= \sqrt{\frac{4.08}{5}}$ =0.91	$= \sqrt{\frac{501.61}{5}}$ = 10.01
$(C.V) = \frac{\sigma}{\bar{X}} \times 100$	$= \frac{0.77}{2.03} \times 100$ = 37.93	$= \frac{0.91}{1.60} \times 100$ = 56.88	$= \frac{10.01}{26.31} \times 100$ = 38.04

Appendix 5

Calculation of S.D. and CV of NP to Total Loan

Year/Bank	NIBL			NABIL			NBBL		
	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²
2005	2.07	-0.38	0.14	5.32	0.68	0.46	0.03	-4.03	16.26
2006	2.22	-0.23	0.05	4.75	0.11	0.01	-6.75	10.81	116.90
2007	2.66	0.21	0.04	4.78	0.14	0.02	-14.86	18.92	358.04
2008	2.82	0.37	0.14	4.24	-0.40	0.16	6.71	2.65	7.01
2009	2.48	0.03	0.00	4.11	-0.53	0.28	35.18	31.12	968.33
	$\sum X = 12.25$	$\sum (X - \bar{X})^2 = 0.38$		$\sum X = 23.20$	$\sum (X - \bar{X})^2 = 0.94$		$\sum X = 20.31$	$\sum (X - \bar{X})^2 = 1466.54$	
Mean	2.45			4.64			4.06		
SD	0.28			0.44			17.13		
CV	11.42			9.48			421.92		

We have,

$$N = 5$$

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

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

$\sum X =$	12.25	23.20	20.31
$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$	$\frac{12.25}{5}$ = 2.45	$\frac{23.20}{5}$ = 4.64	$\frac{20.31}{5}$ = 4.06
$\sum (X - \bar{X})^2 =$	0.38	0.94	1466.54
$(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$	$= \sqrt{\frac{0.38}{5}}$ = 0.28	$= \sqrt{\frac{0.94}{5}}$ = 0.44	$= \sqrt{\frac{1466.54}{5}}$ = 17.13
$(C.V) = \frac{\sigma}{\bar{X}} \times 100$	$= \frac{0.28}{2.45} \times 100$ = 11.42	$= \frac{0.44}{4.64} \times 100$ = 9.48	$= \frac{17.13}{4.06} \times 100$ = 421.92

Appendix 6

Calculation of S.D. and CV of Provision Held to NPL

Year/Bank	NIBL			NABIL			NBBL		
	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²	Ratio(X)	X-X	(X-X) ²
2005	114.92	-43.99	1934.77	125.09	-40.08	1606.57	95.49	1.92	3.69
2006	116.37	-42.54	1809.31	248.97	83.80	7022.10	100.38	6.81	46.38
2007	147.79	-11.12	123.57	194.54	29.37	862.48	101.5	7.93	62.88
2008	114.45	-44.46	1976.34	200.56	35.39	1252.31	94.45	0.88	0.77
2009	301.00	142.09	20190.70	56.70	108.47	11766.17	76.03	17.54	307.65
	$\sum X = 794.53$	$\sum (X - \bar{X})^2 =$	26034.69	$\sum X = 825.86$	$\sum (X - \bar{X})^2 =$	22509.64	$\sum X = 467.85$	$\sum (X - \bar{X})^2 =$	421.37
Mean	158.91	$(X - \bar{X})/2/N$	5206.94	165.17	$(X - \bar{X})/2/N$	4501.93	93.57	$(X - \bar{X})/2/N$	84.27
SD	72.16			67.08			9.18		
CV	45.40			40.61			9.81		

We have,

$$N = 5$$

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

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{X}} \times 100$$

$\sum X =$	794.53	825.86	467.85
$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$	$\frac{794.53}{5}$	$\frac{825.86}{5}$	$\frac{467.85}{5}$
	=158.91	=168.17	=93.57
$\sum (X - \bar{X})^2 =$	26034.60	22509.64	421.73
$(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$	$= \sqrt{\frac{26034.60}{5}}$	$= \sqrt{\frac{22509.64}{5}}$	$= \sqrt{\frac{421.73}{5}}$
	=72.16	=67.08	=9.18
$(C.V) = \frac{\sigma}{\bar{X}} \times 100$	$= \frac{72.16}{158.91} \times 100$	$= \frac{67.08}{168.17} \times 100$	$= \frac{9.18}{93.57} \times 100$
	=45.40	=40.61	=9.81

Appendix 7

Correlation between LLP and Loans and Advances

Year/ Bank	NIBL						
	LLP (X)	x=X-X	x ²	Loans & Advances (Y)	y=Y-Y	y ²	xy
2005	208	-196.40	38572.96	7338	-9657.80	93273100.84	1896791.92
2006	327	-77.40	5990.76	10453	-6542.80	42808231.84	506412.72
2007	402	-2.40	5.76	13178	-3817.80	14575596.84	9162.72
2008	483	78.60	6177.96	17769	773.20	597838.24	60773.52
2009	602	197.60	39045.76	36241.00	19245.20	370377723.04	3802851.52
	ΣX= 2022	Σ x²=	89793.20	ΣY= 84979	Σ y²=	521632490.80	Σxy= 6275992.4
Mean	404.40			16995.80			

r 0.917
P.E. 0.048
6*P.E. 0.288

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{6275992.4}{\sqrt{89793.20 \times 52163219080}} = 0.917$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.917^2)}{\sqrt{5}} = 0.048$$

$$6 \text{ P.E.} = 6 \times 0.048 = 0.288$$

Appendix 8

Correlation between LLP and Loans and Advances

Year/ Bank	NABIL						
	LLP(X)	x=X-X	x ²	Loans & Advances (Y)	y=Y-Y	y ²	xy
2005	359	47.00	2209.00	8549	-6704.60	44951661.16	-315116.2
2006	361	49.00	2401.00	10947	-4306.60	18546803.56	-211023.4
2007	356	44.00	1936.00	13279	-1974.60	3899045.16	-86882.4
2008	357	45.00	2025.00	15903	649.40	421720.36	29223
2009	127	-185.00	34225.00	27590	12336.40	152186764.96	-2282234
	ΣX= 1560		Σx²=42796.00	ΣY= 76268.00		Σy² =220005995.20	Σxy= -2866033
Mean	312.00			15253.60			

r **-0.0933**
P.E. **0.299**
6*P.E. **1.79**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{-2866033}{\sqrt{42796 \times 22005995.20}} = -0.0933$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745[1-(-0.0933)^2]}{\sqrt{5}} = 0.299$$

$$6 \text{ P.E.} = 6 \times 0.299 = 1.79$$

Appendix 9

Correlation between LLP and Loans and Advances

Year/ Bank	NBBL						xy
	Ratio(X)	x=X-X	x ²	Ratio(Y)	y=Y-Y	y ²	
2005	995	-948.00	898704	9645	1255.40	1576029.16	-1190119.2
2006	1839	-104.00	10816	9627	1237.40	1531158.76	-128689.6
2007	2971	1028.00	1056784	9796	1406.40	1977960.96	1445779.2
2008	2112	169.00	28561	5855	-2534.60	6424197.16	-428347.4
2009	1798	-145.00	21025	7025.00	-1364.60	1862133.16	197867
	ΣX= 9715		Σx²=2015890	ΣY= 41948.00		Σ y² =13371479.20	Σxy=- 103510
Mean	1943			8389.60			

r = -0.0199

P.E. = 0.30

6*P.E. = 1.80

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{-103510}{\sqrt{2015890 \cdot 13371479.20}} = -0.0199$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745[1-(-0.0199)^2]}{\sqrt{5}} = 0.30$$

6 P.E. = 6 × 0.30 = 1.80

Appendix 10

Correlation between LLP and Loans Non Performing Loan

Year/ Bank	NIBL						
	LLP(X)	x=X-X	x ²	NPL(Y)	y=Y-Y	y ²	xy
2005	208	196.40	38572.96	181	-90.20	8136.04	17715.28
2006	327	-77.40	5990.76	281	9.80	96.04	-758.52
2007	402	-2.40	5.76	272	0.80	0.64	-1.92
2008	483	78.60	6177.96	422	150.80	22740.64	11852.88
2009	602	197.60	39045.76	200	-71.20	5069.44	-14069.12
	ΣX= 2022		Σx²=89793.20	ΣY= 1356		Σ y² =36042.80	Σxy=14738.6
Mean	404.40			271			

r **0.259**
P.E. **0.28**
6*P.E. **1.685**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{14738.60}{\sqrt{89793.20 \times 36042.80}} = 0.259$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.259)^2}{\sqrt{5}} = 0.28$$

$$6 \text{ P.E.} = 6 \times 0.28 = 1.685$$

Appendix 11

Correlation between LLP and Loans Non Performing Loan

Year/ Bank	NABIL						xy
	LLP(X)	x=X-X	x ²	NPL(Y)	y=Y-Y	y ²	
2005	359	47.00	2209.00	287	83.60	6988.96	3929.2
2006	361	49.00	2401.00	145	-58.40	3410.56	-2861.6
2007	356	44.00	1936.00	183	-20.40	416.16	-897.6
2008	357	45.00	2025.00	178	-25.40	645.16	-1143
2009	127	-185.00	34225.00	224	20.60	424.36	-3811
	ΣX= 1560		Σx²=42796.00	ΣY= 1017		Σ y² =11885.20	Σxy=4784
Mean	312			203.40			

r **0.212**

P.E. **0.287**

6*P.E. **1.722**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{4784}{\sqrt{42796 \times 11885.20}} = 0.212$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.212)^2}{\sqrt{5}} = 0.287$$

$$6 \text{ P.E.} = 6 \times 0.287 = 1.722$$

Appendix 12

Correlation between LLP and Loans Non Performing Loan

Year /Bank	NBBL						xy
	LLP(X)	x=X-X	x ²	NPL(Y)	y=Y-Y	y ²	
2005	995	-948.00	898704	1042	-1038.40	1078274.56	984403.2
2006	1839	-104.00	10816	1832	-248.40	61702.56	25833.6
2007	2971	1028.00	1056784	2927	846.60	716731.56	870304.8
2008	2112	169.00	28561	2236	155.60	24211.36	26296.4
2009	1798	-145.00	21025	2365	284.60	80997.16	-41267
	ΣX= 9715		Σx²=2015890	ΣY= 10402.00		Σy² =1961917.20	Σxy=1865571
Mean	1943			2080.40			

r **0.938**
P.E. **0.0361**
6*P.E. **0.217**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{1865571}{\sqrt{2015890 \times 1961917.20}} = 0.938$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.938)^2}{\sqrt{5}} = 0.0361$$

$$6 \text{ P.E.} = 6 \times 0.0361 = 0.217$$

Appendix 13

Correlation between Loans and Advance and Total Deposit

Year	NIBL						
	Loans and Advance(X)	x=X-X	x ²	Total Deposit(Y)	y=Y-Y	y ²	xy
2005	7338	-9657.80	93273100.84	11525	11653.60	135806392.96	112548138.1
2006	10453	-6542.80	42808231.84	14255	-8923.60	79630636.96	58385330.08
2007	13178	-3817.80	14575596.84	18927	-4251.60	18076102.56	16231758.48
2008	17769	773.20	597838.24	24488	1309.40	1714528.36	1012428.08
2009	36241	19245.20	370377723.04	46698	23519.40	553162176.36	452635556.9
	ΣX= 84979		Σx²=521632490.80	ΣY= 115893		Σy² =788389837.20	Σxy=640813211.6
Mean	16995.80			23179			

r **0.999**
P.E. **0.0006**
6*P.E. **0.0361**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{640813211.6}{\sqrt{521632490.80 \times 788389837.20}} = 0.999$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.999^2)}{\sqrt{5}} = 0.0006$$

$$6 \text{ P.E.} = 6 \times 0.0006 = 0.0361$$

Appendix 14

Correlation between Loans and Advance and Total Deposit

	NABIL						
Year	Loans and Advance(X)	x=X-X	x ²	Total Deposit(Y)	y=Y-Y	y ²	xy
2005	8549	-6704.60	44951661.16	14119	-7629.60	58210796.16	51153416.16
2006	10947	-4306.60	18546803.56	14587	-7161.60	51288514.56	30842146.56
2007	13279	-1974.60	3899045.16	19347	-2401.60	5767682.56	4742199.36
2008	15903	649.40	421720.36	23342	1593.40	2538923.56	1034753.96
2009	27590	12336.40	152186764.96	37348	15599.40	243341280.36	192440438.2
	ΣX=76268		Σx²=220005995.20	ΣY=108743		Σy²=361147197.20	Σxy=280212954.2
Mean	15254			21748.60			

r **0.994**
P.E. **0.0036**
6*P.E. **0.216**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{280212954}{\sqrt{220005995.20 \times 361147197.20}} = 0.994$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.994^2)}{\sqrt{5}} = 0.0036$$

$$6 \text{ P.E.} = 6 \times 0.0036 = 0.216$$

Appendix 15

Correlation between Loans and Advance and Total Deposit

NBBL							
Year	Loans and Advance(X)	x=X-X	x ²	Total Deposit(Y)	y=Y-Y	y ²	xy
2005	9645	1255.40	1576029	12807	1325.80	1757745.64	1664409.32
2006	9627	1237.40	1531159	12125	643.80	414478.44	796638.12
2007	9796	1406.40	1977961	13015	1533.80	2352542.44	2157136.32
2008	5855	-2534.60	6424197	9464	-2017.20	4069095.84	5112795.12
2009	7025	-1364.60	1862133	9995	-1486.20	2208790.44	2028068.52
	ΣX= 41948		Σx²=13371479	ΣY= 57406.00		Σy² =10802652.80	Σxy=11759047.4
Mean	8390			11481.20			

r **0.978**
P.E. **0.0130**
6*P.E. **0.0785**

We have, Karl Pearson Correlation coefficient,

N= 5

$$\text{Correlation, } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{11759047.4}{\sqrt{13371479 \times 10802652.80}} = 0.978$$

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.978)^2}{\sqrt{5}} = 0.0130$$

$$6 \text{ P.E.} = 6 \times 0.0130 = 0.0785$$

APPENDIX 16

Figures from Balance Sheet & Profit & Loss Account

Total Asset					
BANKS/YEAR	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	13255	16064	21330	27591	53011
NABIL	16745	17064	22330	27253	43867
NBBL	14258	13283	12959	10118	13560

Total Deposit					
BANKS	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	11525	14255	18927	24488	46698
NABIL	14119	14587	19347	23342	37348
NBBL	12807	12125	13015	9464	9995

Loans and Advances					
BANKS	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	7338	10453	13178	17769	36241
NABIL	8549	10947	13279	15903	27590
NBBL	9645	9627	9796	5855	7025

Non Performing Loan					
BANKS	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	181	281	272	422	200
NABIL	287	145	183	178	224
NBBL	1042	1832	2927	2236	2365

Performing Loan					
BANKS	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	7157	10172	12906	17347	36041
NABIL	8262	10802	13096	15725	27366
NBBL	8603	7795	6869	3619	4660

Loan Loss Provision					
BANKS	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	208	327	402	483	602
NABIL	359	361	356	357	127
NBBL	995	1839	2971	2112	1798

Net Profit					
BANKS	2004/05	2005/06	2006/07	2007/08	2008/09
NIBL	152	232	351	501	900
NABIL	455	520	635	674	1135
NBBL	3	(650)	(1456)	(393)	2472

Note:

- The entire figures presented above are rounded off to the nearest million Rs.
- The data presented herein are of to 2004/05 to 2008/09.
- The data presented herein are based on the amount mentioned in the annual reports of respective years of concerned banks.
- Loans and Advances also include Bill Purchased & Discounted.