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. whereas 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. The establishment of commercial Bank has reached up to 27 in Nepalese economy and there are a lot more commercial Banks to come in recent time. Non- Banking sector of Nepal mainly includes finance companies, cooperative units, micro- credit development Banks, non-government organizations performing limited Banking transactions.

Financial sector in Nepalese economy is a symbol of customary organization, where other sector's organization portrays to be like that. Financial sector represents competition, transparency, financial discipline and self-governance. The main activity of financial sector is to play on interest rate whether it is on deposits or loans and advances. Beside this, it has to deal with statutory reserve requirement, targeted credit programs, securities, trading insurance service, practices like maintaining capital adequacy, loan loss provision, auditing etc.

Financial sector is a system on which whole body of an economy stands. It is applicable to any type of economy whether it is developing or developed. Furthermore, it also supports other sector. It works as lubricant for other sectors to grow. Financial intermediaries are gap fulfiller that bridges between borrower and lender or saver and investor. Financial intermediaries come up with different avenues to accept money of savers and provide to investors at competitive price to flourish.

A sound financial system fulfill requirement of all types of customers. In developed economy, financial institutions have to come with varieties of products and services so that all needs of particular economy can be fulfilled. Effectiveness and efficiency are key element for financial sector to survive in any economy. Moreover, any activity must be within a boundary line of central Bank of that country or regulating body. Financial sector has to provide interest on its deposits therefore, has compulsion to lend money. Then, there is an issue of defaulter case.

Commercial Banks collect deposits from the public and the largest portion of the deposited money is utilized in disbursing loans and advances. The balance sheets of the commercial Banks reflect deposits constitute a major portion of the liabilities and loans and advances constitute a major portion of the assets. Similarly the profit of the Bank depends upon the spread that it enjoys between the interest it receives from the borrowers and is paid to the savers. An average Bank generates 65-75% of its revenues through its lending activities. The return that the Bank enjoys through loans and advances is very attractive but do not come free of cost and free of risk. There is risk inherent in lending portfolio. 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 irresponsibility, the cost borne by the economy will be enormous.

Due to their central role in the economy, governments and central Banks try their best to rescue Banks from such situations. Hence to protect the Banks from such situation and protect depositors and 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 increases 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.

1.1.1 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’sArthasastra “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.

1.1.2 Banking System in Nepal

Nepal is one of the land locked countries in Asia covered by the UNESCAP region and is among the least developed of the developing countries. Land- lockedness is the major geographic weakness that became the main hindrance in overall development of Nepal. In the overall development of the Banking system in Nepal, the “Tejarath Adda” may be regarded as the father of modern Banking institution and for a quite a long time it tendered a good service to government servants as well as to the general public. If we turn into History, Prime Minister “Ranodip Singh” took initiative for financial and economic reforms. 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 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 Banijiya Bank and Nepal Bank Ltd. The commercial Bank act 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.

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.

1.1.3 Brief 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 15 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.

1.1.4 Brief Profile of the Selected Banks

Nabil Bank Limited (NABIL)

Nabil Bank Limited formerly named as Nepal Arab Bank Limited was established on July 12^{th} 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. NABIL is the only joint venture Bank with 25 points of representation in various parts of the country.

Share Holding Pattern

International entity	50%
Other Institution	20%
General Public	30%

NABIL is amongst the most successful Bank in Nepal registering strong growth. 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.

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 register office.

NIBL is headquartered in Kathmandu and has altogether 18 branches in different urban and semi urban parts of the country. The capital (core& supplementary capital) of the Bank is noted Rs.2,550 million as of mid-April,2008.

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.

Share Holding Pattern

Rastriya Banijya Bank	15%
Rastriya Beema Sanstha	15%
Nepalese Promoters	50%
General Public	20%

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. During the period of 10 years of its operation, 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, Putalisadak 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 34 percent from an earlier 41 percent," 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.

Share Holding Pattern

Bangladesh International Finance Investment and Commercial Bank Ltd.	50%
General Public	30%
Nepalese Promoters	20%

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.

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 concerns 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.

1.3 Statement of the Problems

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. This question regarding to NPA with special reference to Nabil Bank Ltd., Nepal Investment Bank Ltd. and Nepal Bangladesh Bank Ltd; is stated below:

- What is the impact of NPA on the profitability in the selected commercial Banks?
- What is the proportion of NPA in selected commercial Banks?
- What is the level of NPA in total assets, total deposits and loans and advance in selected commercial Banks?
- What are the trend line of the non-performing assets, loan and advance, loan loss of selected commercial Banks?

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 Objectives of the Study

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

- To find out the impact of NPA on the profitability in the selected commercial Banks.
- To know the proportion of NPL in the selected commercial Banks.
- To examine the level of NPL in total assets, total deposit and loans and advances.
- To present the trend line of the non-performing assets, loan and advance, loan loss of selected commercial Banks.

1.6 Limitation 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 2005/2006 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:

Chapter - I: 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.

Chapter - II: 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 NPL. Present regulatory provisions and their assessment are also reviewed in this chapter.

Chapter - III: 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.

Chapter - IV: 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.

Chapter - V: Summary, Conclusion & Recommendation

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 - II

REVIEW OF LITERATURE

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 Conceptual/Theoretical Review
2.2 Review of Relevant NRB Directives
2.3 Review of Relevant Articles/Journals
2.4 Review of Previous Relevant Thesis
2.5 Research Gap

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

2.1 Conceptual/Theoretical Review

2.1.1 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.

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

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 if ‘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.

a) Reason Behind High Level of NPL

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.

b) Loan Loss Provision

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 provisioning is made as cushion against possible losses and to reflect the true picture of the Bank’s asset. Hence there is practice of showing net loan (Total 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.

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.

Characteristics	Risk Class	Risk Category
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	Delivery Risk	(a) Operational Risk
		(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 weather 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

One of the common and serious problem of the market is that most of the borrowers do not furnish the financials 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 week 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 doses not go bad at ones, 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.

2.2 Review of Relevant NRB Directives

NRB issues various directives relating Banking regulations and prudential norms. Among various directives issued in 2001 directive No. 2 is relating to loan classification and provisioning.

Directives Relating To Loan Classification and Provisioning (Directive No. 2)

Effective FY 2058/59 (2001/02), Banks shall classify outstanding loan and advances on the basis of aging of principal amount into the following 4 categories.

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.

Substandard

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

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.

Loss

All loans and advances which are past due for a period of more that 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)

Time table of Loan Classification

Classification	
Pass	Loans not past due and past due up to 3 (three) months.
Sub-Standard	Loans and advances past due for a period of over 3 months to 6 months.
Doubtful	Loans and advances past due for a period of over 6 months to 1 year.
Loss	Loans and advances past due for a period of over 1 year.

The respective overdue periods of Pass, Sub-standard and Doubtful loans shall be considered for higher classification from the next day of date of expiry of the overdue period provided for each class.

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%

2.3 Review of Relevant Articles/Journals

"Modus Operandi of Risk Appraisal in Bank Lending"

Shiba Raj Shrestha (Executive Director NRB) in his article titled as above 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"

In the report titled "Write –Offs behind fall in Banks NPL level" published in the Himalayan Times, the reporter has attempted the crucial issues of non-performing loan

(NPL) ailing the financial sector in Nepal may appear to have been sorted out. The level of NPL which stood at a whopping 60% prior the financial sector reforms in 2002 and hovered around 30% in 2004, has come down to 14.22% in 2006. However, thereby hangs a story of massive write - off loans and interest on loans. Nepal Bank Ltd., written off loan amounting to almost Rs. 4 billion and an interest of around Rs.8 billion, pointed out Nepal Rastra Bank. And according to the Bank regulatory, even Rastriya Banijay Bank is planning to write of a total of Rs.12 billion loans (The Himalayan Times, Dec.20, 2007).

The reporter further states that the big borrowers have been avoiding loan repayment by getting stay order from courts. While the recently promulgated Bank and financial institutions act 2063 demarcates the role of NRB and in handling the NPL issues of the Banks, the regulator still clearly lacks the teeth to deal with defaulters with an iron hand. For instead of being authorized directly initiates action against them, NRB can request the government of Nepal to take necessary steps against the defaulters when approved by the commercial Banks.

The reporters concludes, the three steps NRB directives to Banks on handling bad loans entails: follow up, blacklisting borrowers and then request NRB for enforcement action in term of seizing the passport or attaching of property for auction.

Adhikari M.P 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 %% on total loans and advance. But out of 26 commercials Bank,11 Banks have less than 5% NPL and one have marginally above 5% NPL.NPL level of other Five Banks is quit 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 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 40% 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"

Deependra B. Chhetri in the article titled "Non-Performing Assets: A need for Rationalization", the writer has attempted to provide connation of the term 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 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, in the article titled 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 AMCs 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."

2.4 Review of Related Thesis

Khadka, D.K. (2007**)** conducted thesis on *"Non-Performing Assets of Nepalese Commercial Banks"* with an objective to examine the level of NPAs in total assets, total deposit and total landing of Nepalese commercial banks. He also showed that the effects of non-performing assets on Return on Assets and Return on Equity of Nepalese commercial banks. He said that 'despite of being loan and advances more profitable those other assets, it creates risk of non-payment for the bank. Such risk is known as credit risk or default risk. Therefore, like other 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 can't be run off from such situation. The level of NPAs in Nepalese banking business is very alarming. It is well known fact the problem of swelling non-performing assets (NPAs) and the issue is becoming more and more unmanageable day by day. We are well known from different financial reports, newspaper 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 RastriyaBanijya Bank (RBB) and Nepal Bank Ltd. (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 towards recovering their bad loans perfectly. Level of NPA has been increasing. The level of NPA of Nepal Bangladesh Bank ltd.(NBBL), Nepal SBI Bank ltd. (NSBIBL), and Bank of Kathmandu ltd (BOKL) seems very unsatisfactory. If the situation is not handing right now, it will be unmanageable and difficult to handle.

In other level of NPA of Nepal Investment Bank and NABIL bank has been gradually decreasing every year. The NPA of NIBL is least (minimum) than all of other banks at the end of 2059/60. The high degree of negative correlation of different commercial banks between NPA and ROA, and NPA and ROE indicates towards the inverse relation between NPA and ROA, and NPA and ROE. It means the level of NPA effect the return on assets and return on shareholder's equity. Therefore, banks should reduce their level of NPA to increase the ROE and ROA.

Bhattarai, S. (2004), made a study in *"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 aspect 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 loan and advance enables banks to monitor the quality of their loan portfolios and to rake 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."

Shrestha, N. (2004) in her study "*A Study on Non-Performing Loan and Loan Loss Provisioning of Commercial Banks with reference to Nepal Bank Ltd, NABIL Bank Ltd"* and Standard Chartered Bank Nepal ltd., has made an attempt to analyze the various aspects of non-performing loan in the commercial banks. Her main objectives of the study is to find out the proportion of non-performing loan, factors lending to accumulation of non-performing loan, relationship between loan and loan loss provision and impact of loan loss provision on profitability of the commercial bank.

She concludes, "Increasing non-performing loan is the serious problem of the banking sector in Nepal. Non-performing assets directly affects the income flow of the bank. It has been found that NBL has very high portion of non-performing loan resulting to higher portion. Hence, even the bank has the highest investment in the most income generating assets i.e. loan and advances, it is in loss. Even the private sector bank like NABIL has higher non-performing loan and according higher provision. NABIL's average proportion on non-performing loan during the study period is higher than the acceptable. However in recent two year NABIL's non-performing loan has shown significant decrement and according provision has also decreased. Among the three banks SCBNL has the least non-performing loan and thus the least loan loaa provision. From these indicators it can be said that SCBNL is the best among the three banks. However SCBNL seems less oriented towards lending. Hence, the lower percentage of NPL and provisioning of SCBNL in not only due to proper lending function but also due to relatively lower investment in loans and advances."

She also said that ineffective credit policy, political pressure to lend uncredit worthy borrowers, overvaluation of collateral are the major cause of mounting non-performing assets in government owed banks like NBL. Other factors lending to accumulation of NPAs are weak loan sanctioning process, ineffective credit monitoring and supervision system, economic slowdown, borrower's misconduct etc. In addition to this establishing recovery cell hiring Asset Management Company is also measure to resolve the problem of NPL.

She recommended that the factor which leads to non-performing loan 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 cautions and realistic while granting loans and advances. After advancing loans there should be regular supervision and follow up for proper utilization of loan. It also recommended that 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. 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 strength credit information bureau (CIB) so that banks can get required credit information about the borrowers on time. This help in reducing NPL.

Pradhan, K. (2008) has conducted a research on *"A Study on Non- Performing Assets of Commercial Bank with References to SCBNL, RBB, Everest bank, NB bank and NBBL"*. Main objective of his study are to find out the proportion of non-performing loan and the level of NPA in total assets, total deposit and total lending in the selected commercial bank relationship between loan loss provision in the commercial bank impact of non-performing assets in the performance of commercial bank.

He has concluded improper credit policy, political pressure to lend, lack of supervision and monitoring, economic slowdown, overvaluation of collateral are the major cause of occurring NPA. In recent year, not only the private sector's bank (like NBBL,EBL and SCBNL) but also public sector's banks (RBB and NBL) are trying to maintain their loan and advances to control over becoming the non-performing assets. To overcome the NPA from public banks, they should try to recover their loan and interest amount on time and also make a suitable loan loss policy.

He has concluded "high level of non-performing assets not only decrease the profitability of the banks but also affect the entire financial as well as operational health of the organization. If the NPA doesn't control immediately, it will be main causes for shutdown of the banks in future.

He suggest that reduce the NPA problem immediate remedial action for taking enough collateral, so that the bank at least can able to recover its principle and interest amount in case of being unable to repay by the borrower, proper financial analysis should be done before lending to the borrowers bank should provide appropriate training regarding loan management, risk management, credit appraisal etc. to the employee. Bank should apply precautions before granting any loan and advances to decrease the bad loans.

Shrestha, N. (2004) on *"Non-performing Loans and Loan Loss Provisioning of Commercial Bank"*. To achieve her objectives she has analyze different aspect of SCBNL, NBL and NABIL. He has set the following objectives:

i. To evaluate the impact of NPA on profitability.
ii. ii. To assess the adequacy of Loan Loss provisioning.
iii. To measure the level of NPA and its relationship with total loans.
iv. To analyze the external and internal factor that influence NPA.

And the major findings of her study were as follows:

i. Management of SCBNL has risk adverse attitude or they have policy of investing low in risky assets as compared to NABIL and NBL.
ii. Loan and advance to total deposit ratio of SCBNL is more consistent in comparison to other two banks.
iii. SCBNL has low non-performing loans in comparison to other two banks.
iv. Loan loss provisioning of NBL is significantly higher than other two banks.

Gimire, G. (2005) on "*Non- Performing Assets of Commercial Bank*" has set the following objectives for analysis.

i. To evaluate the impact of NPA on profitability
ii. To assess the relationship of NBA and NPA.
iii. To analyses the external and internal factor that influence NPA.

And the major findings of his study were as follows:

i. Operating profit of sample banks are increasing but the growth on net profit is negative because of loan loss provision.
ii. There is a positive relation between credit expansion and incremental on NPA.
iii. NBA is created due to having NPA but cannot say whether there is NPA that always creates NBA.

Koirala, S. (2006) has conduct research on *“Non Performing Assets and Profitability of Commercial Banks”*. He analyzed the data of six commercial banks and has set the following objectives:

i. To evaluate the impact of NPA on the profitability of the commercial banks.
ii. To evaluate internal and external factor those influence the performing assets to non-performing assets.

And the major findings of his study were as:

i. The NPA of NIB and NB Bank was increasing during the study period.
ii. The NPA of EBL and NABIL was decreasing during the study period.
iii. The NPA of HBL and SBI Bank was fluctuating during the study period.
iv. In overall performance Nabil Bank was found to be satisfactory whereas NB Bank performance was the worst.

2.5 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 23 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 two old Banks NBL and RBB and private sector Banks comprise remaining 21Banks. 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

This study is based on historical information provided by the company. The study is based on secondary data as well as primary data. Secondary data are used to analyses the factors, which affect the sensitivity of stock price, primary data are collected from the respondents through research questionnaire. The following secondary sources of information are used to extract the required information:

- Annual reports of the company
- Financial statements
- Books, Journals, Newspaper Bulletins
- Previous dissertation papers, studies

- Periodical publication from Central Bureau of Statistics
- Securities Board, Nepal
- Nepal Stock Exchange
- Nepal Rastra Bank
- Related Websites

3.4 Data Collection Techniques

Primary data has been obtained through questionnaire, direct interviews, field visit and telephonic inquires. The annual reports of NABIL, NIBL & NBBL were collected from concerned Banks. Various publications of NRB were collected from branch office of respective bank. 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 Shankerdev campus 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.

a) 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

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

b) 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.

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

c) 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:

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

d) 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:

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

e) 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:

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

f) 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 Percentages

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

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

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

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:

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.

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:

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

Where,

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

$\exists_x$ XStandard Deviation of Series X

$\exists_y$ XStandard 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.

$$r = \frac{xy}{\sqrt{x^2. \quad y^2}}$$

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:

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

Where, r = correlation coefficient

N= No. of pairs of observation.

If r > 6 P.E, then the correlation coefficient is significant and reliable.

If r < P.E, then the correlation coefficient is insignificant and there is no evidence of correlation.

3.5.3 Trend Analysis

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

$$Y_c = a + bX$$

Where,

Y_c = Trend Values

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

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

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

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

$$\sum Y = Na + b\sum X \text{ ....(i)}$$

$$\sum XY = a\sum X + b\sum X^2 \text{ ....(ii)}$$

Where, N = number of years

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

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

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

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

3.5.4 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

DATA PRESENTATION AND ANALYSIS

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.

Table 4.1
Loans & Advances to Total Asset Ratio

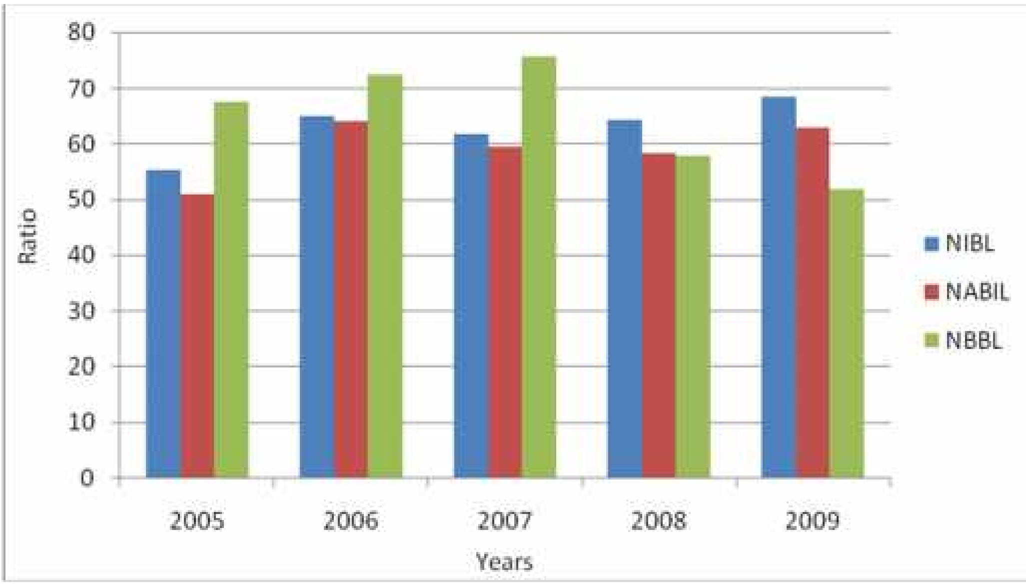
(In Rs. Million)

Year (Mid July)	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	**57.87**
2009	36241	53010	**68.37**	27590	43867	**62.89**	7025	13560	**51.81**
Mean			**63.00**			**59.18**			**65.08**
S.D			**4.36**			**4.59**			**8.94**
C.V			**6.92**			**7.76**			**13.74**

(Source: Annual Reports & Websites of Concerned Bank)

Figure 4.1

Loans & Advances to Total Asset Ratio



The detail calculation shown above on table and figure 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%, 59.18% and 65.08% 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 4.36, 4.59 & 8.94 and C.V.s are6.92%, 7.76% & 13.74% respectively. 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 4.2

Loans & Advances to Total Deposit Ratio

(In Rs. Million)

Year (Mid July)	NIBL			NABIL			NBBL		
	Loans & Advances	Total Deposit	Ratio (%)	Loans & Advances	Total Deposit	Ratio (%)	Loans & Advances	Total Deposit	Ratio (%)
2005	7338	11525	0.64	8549	14119	0.61	9645	12807	0.75
2006	10453	14255	0.73	10947	14587	0.75	9627	12125	0.79
2007	13178	18927	0.70	13279	19347	0.69	9796	13015	0.75
2008	17769	24488	0.73	15903	23342	0.68	5855	9464	0.62
2009	36241	46698	0.78	27590	37348	0.74	7025	9995	0.70
Mean			0.71			0.69			0.72
S.D			0.05			0.05			0.06
C.V			6.47			7.43			8.31

(Source: Annual Reports & Websites of Concerned Bank)

Figure 4.2

Loans & Advances to Total Deposit Ratio

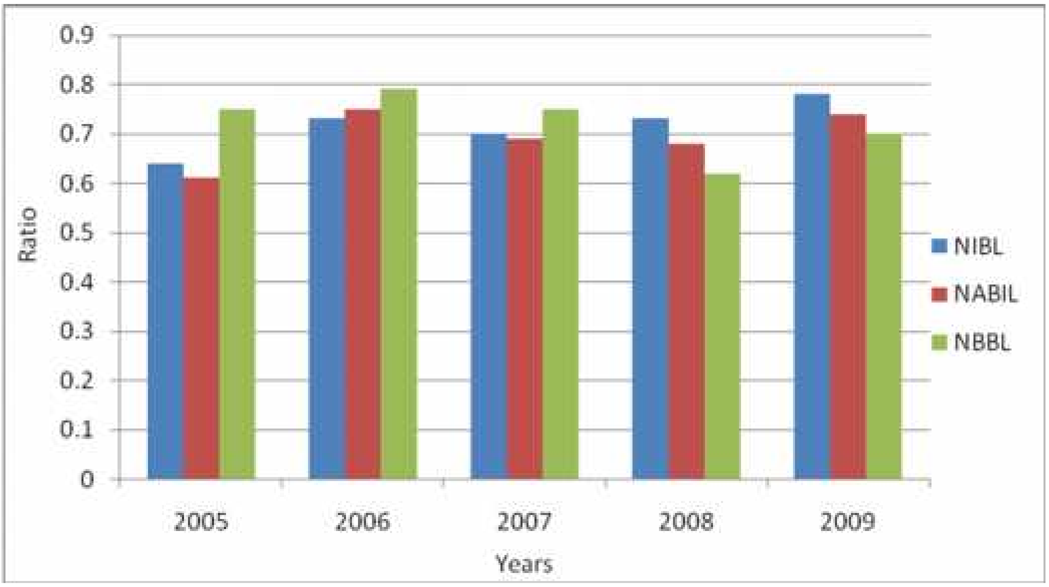


Table and Figure exhibits the loans and advances to total deposit of three Banks for five consecutive years. The mean ratio of NIBL, NABIL and NBBL is 71%, 69% & 72% respectively. Hence among the three Banks, NBBL has the highest proportion of loans and advances in the total deposit followed by NIBL and NABIL. It signifies that NBBL and NIBL 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 5, 5 & 6 and C.V.s is 6.47%, 7.43% & 8.31% respectively. Thus it signifies that NIBL & NABIL have equal deviation but NBBL has the highest deviation. By CV NBBL has the highest percentage (i.e. 8.31%).It means that NBBL has high fluctuation (lowest homogeneity) in utilizing the depositor's fund in loan and advances.

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 4.3

Non-Performing Assets (Loans) to Loans & Advances Ratio

(Rs. In Million)

Year (Mid July)	NIBL			NABIL			NBBL		
	NPL	Loans & Advances	Ratio (%)	NPL	Loans & Advances	Ratio (%)	NPL	Loans & Advances	Ratio (%)
2005	181	7338	0.02	287	8549	0.03	1042	9645	0.75
2006	281	10453	0.03	145	10947	0.01	1832	9627	0.79
2007	272	13178	0.02	183	13279	0.01	2927	9796	0.75
2008	422	17769	0.02	178	15903	0.01	2236	5855	0.62
2009	214	36241	0.01	225	27590	0.01	13558	70250	0.70
Mean			0.02	**Mean**		0.02	**Mean**		0.72
S.D			0.01	**S.D**		0.01	**S.D**		0.06
C.V			36.84	**C.V**		56.35	**C.V**		8.31

(Source: Annual Reports & Websites of Concerned Bank)

Figure 4.3

Non-Performing Assets (Loans) to Loans & Advances Ratio

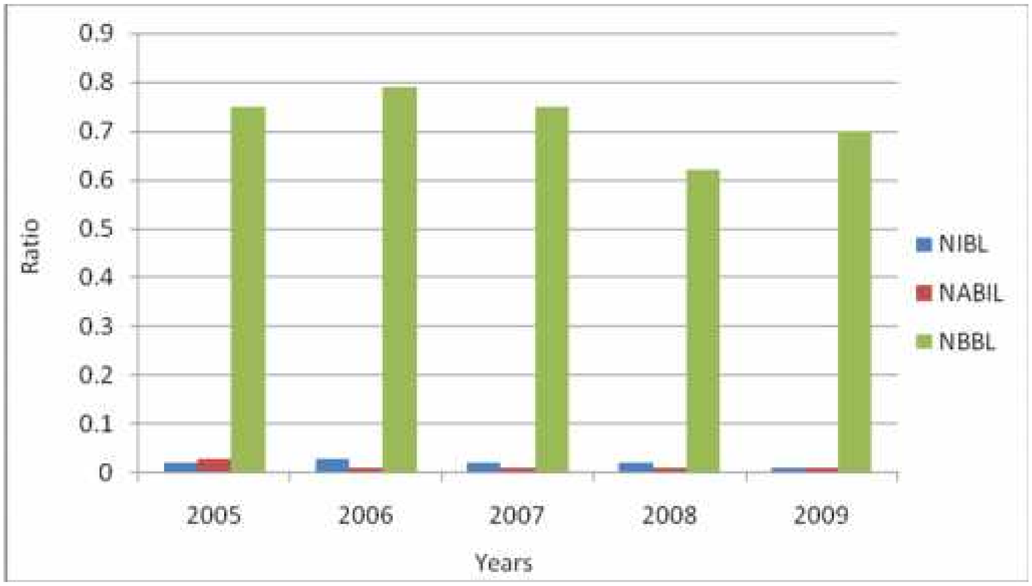


Table and Figure exhibits the ratio of non-performing loans to loans and advances of NIBL, NABIL and NBBL for five consecutive years. Above table shows that NBBL has the highest ratio throughout the study period and also shows increasing trend. NABIL shows the least ratio during the study period. NIBL 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%, 2%, and 72% 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 1, 1 & 6 and C.V.s are 36.84%, 56.35% &8.31% respectively. Thus it signifies that NIBL and NABIL have the least deviation but highest degree of variation in this ratio. Among the three Banks, NABIL is moderate in terms of variability and NBL has the highest deviation but the least variability of ratio 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. The central Bank (Nepal Rastra Bank) has taken their management from last years.

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 4.4

Loan Loss Provision to Loans & Advances Ratio

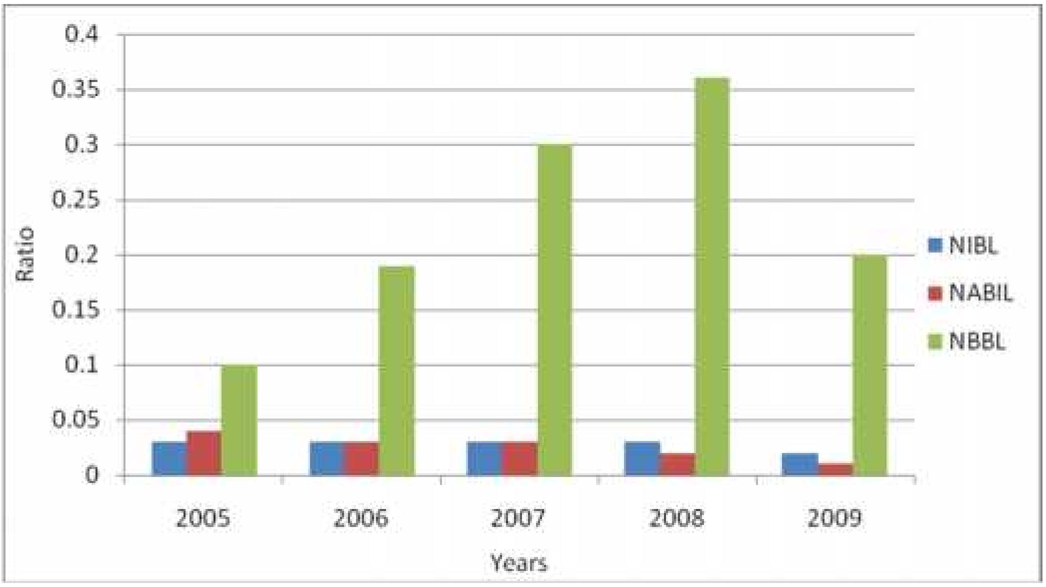
(In Million Rs)

Year (Mid July)	NIBL			NABIL			NBBL		
	LLP	Loans& Advances	Ratio (%)	LLP	Loans & Advances	Ratio (%)	LLP	Loans & Advances	Ratio (%)
2005	208	7338	0.03	359	8549	0.04	995	9645	0.10
2006	327	10453	0.03	361	10947	0.03	1839	9627	0.19
2007	402	13178	0.03	356	13279	0.03	2971	9796	0.30
2008	483	17769	0.03	357	15903	0.02	2112	5855	0.36
2009	586	36241	0.02	409	27590	0.01	14371	70250	0.20
Mean			0.03	**Mean**		0.03	**Mean**		0.23
S.D			0.01	**S.D**		0.01	**S.D**		0.09
C.V			20.47	**C.V**		33.20	**C.V**		38.79

(Source: Annual Reports & Websites of Concerned Bank)

Figure 4.4

Loan Loss Provision to Loans & Advances Ratio



The above table and figure exhibits the ratio of loan loss provision to loans and advances of NIBL, NABIL and NBBL for five consecutive years. The mean loan loss ratio of NIBL, NABIL & NBBL are 3%, 3%, and 23% 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 1,1 & 9 and C.V.s is 20.47%, 33.20% & 38.79% respectively. Thus it signifies that NBBL has higher deviation with higher degree of variation in this ratio. Among the three Banks, NABIL is moderate in terms of variability and NIBL has the least 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 4.5

Provision Held to Non-Performing Loan Ratio

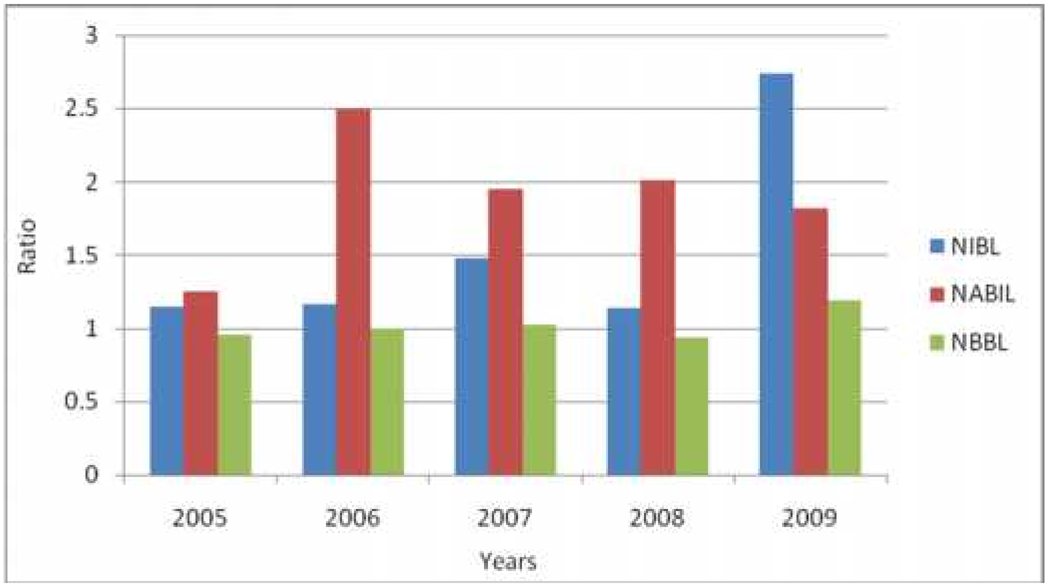
(In Million Rs)

Year (Mid July)	NIBL			NABIL			NBBL		
	LLP	NPL	Ratio (%)	LLP	NPL	Ratio (%)	LLP	NPL	Ratio (%)
2005	208	181	**1.15**	359	287	**1.25**	995	1042	**0.95**
2006	327	281	**1.16**	361	145	**2.49**	1839	1832	**1.00**
2007	402	272	**1.48**	356	183	**1.95**	2971	2927	**1.02**
2008	483	422	**1.14**	357	178	**2.01**	2112	2236	**0.94**
2009	586	214	**2.74**	409	225	**1.82**	2105	1762	**1.19**
Mean			**1.53**	**Mean**		**1.90**	**Mean**		**1.02**
S.D			**0.61**	**S.D**		**0.40**	**S.D**		**0.09**
C.V			**40.06**	**C.V**		**20.89**	**C.V**		**8.83**

(Source: Annual Reports & Websites of Concerned Bank)

Figure 4.5

Provision Held to Non-Performing Loan Ratio



The above table and figure 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 NABIL has the highest ratio throughout the study period except in 2009. NIBL is moderate in this ratio and shows increasing trend except in the year 2007. NBBL shows least ratio in compared to other three Banks.

The mean ratio of NIBL, NABIL & NBBL are 153%, 190%, and 100% 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 but this ratio of NABBL is comparatively lower.

The standard deviation of NIBL, NABIL and NBBL are 61, 40 &4 and C.V.s is 40.06%, 20.89% & 4.23% respectively. Thus it signifies that NABIL has the highest deviation along with the highest degree of variation in this ratio. Among the three Banks, NIBL is moderate in terms of variability and NBBL has the least 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. This ratio is calculated by dividing net profit of the Bank by total loans and advances. 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.

Table 4.6

Return on Loans & Advances

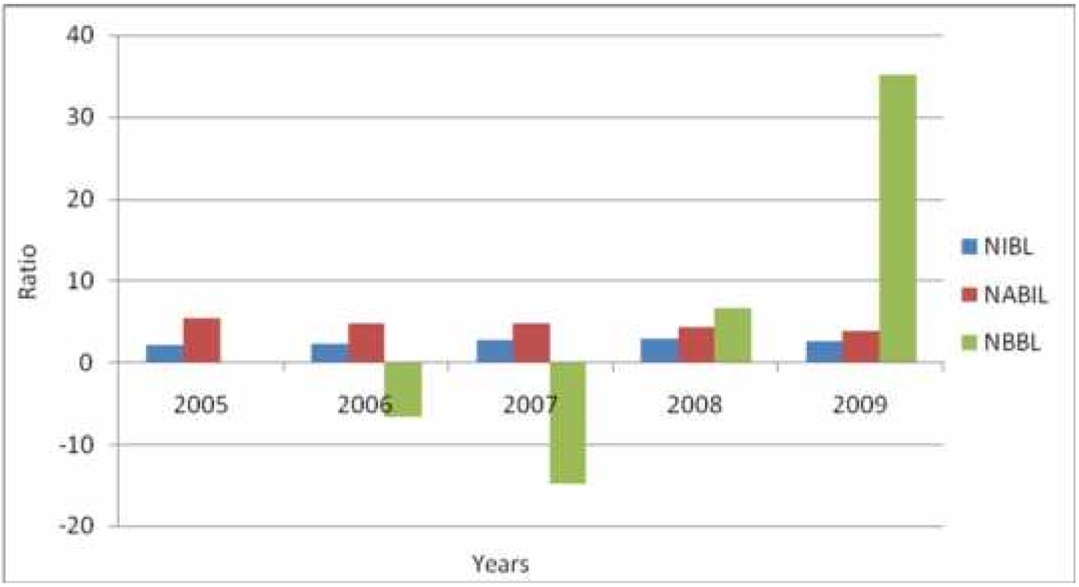
(In Million Rs)

Year (Mid July)	NIBL			NABIL			NBBL		
	Net Profit (Loss)	Loans & Adv.	Ratio (%)	Net Profit	Loans & Adv.	Ratio (%)	Net Profit	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	901	36241	**2.49**	1031	27590	**3.74**	2472	7026	**35.18**
Mean			**2.45**	**Mean**		**4.57**	**Mean**		**4.06**
S.D			**0.2756**	**S.D**		**0.536**	**S.D**		**17.13**
C.V			**2.24**	**C.V**		**2.35**	**C.V**		**84.32**

(*Source: Annual Reports & Websites of Concerned Banks)*

Figure 4.6

Return on Loans & Advances



The above table and figure 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 shows that NABIL has the highest ratio throughout the study period; however, the said ratio is on decreasing trend in the period. NIBL is moderate in this ratio and shows increasing trend consistently five years. Since NBBL is in loss in the year 2006 and 2007, it shows negative return in these periods. The ratio was not at par in the year 2005. The mean ratio of NIBL, NABIL & NBBL is 2.45%, 4.57%, and 4.06 respectively.

The standard deviation of NIBL, NABIL and NBBL are 0.28, 0.54, & 17.13 and CVs are 2.24%, 2.35% & 84.32% respectively. Thus it signifies that along with the higher return NABIL has the moderate deviation with the moderate degree of variation in this ratio. Among the three Banks, NIBL is least in 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.

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 4.7

Correlation between LLP and Loans and Advances

Banks	Correlation Coefficient (r)	Probable Error (P.E.)	6 * P.E
NIBL	0.1572	0.0247	1.7652
NABIL	0.9070	0.0535	0.321
NBBL	0.9896	0.0062	0.0374

(Source: Appendix - 1,2 & 3)

Above table explains the relationship between loans and advances and LLP. Here all banks have positive correlation between LLP and Loans and Advance. More over NBBL and NABIL is significant because correlation coefficient is more than 6PE. On the other hand NIBL's correlation Coefficient is less than 6PE than indicate insignificant in correlation.

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 4.8

Correlation between Loan Loss Provision and Non-Performing Loan

Banks	Correlation Coefficient (r)	Probable Error (P.E.)	6 * P.E
NIBL	0.3451	0.2657	1.5943
NABIL	0.2142	0.2878	1.7269
NBBL	0.9677	0.0191	0.1149

(Source: Appendix - 4, 5&6)

Above table explains the relationship between LLP and NPL. Here all the three Banks have positive correlation between LLP and NPL. The positive correlation between LLP and NPL of Banks imply the increment in NPL leads to increment in LLP.

The correlation coefficient of NIBL is 0.3451 and its P.E and 6P.E are 0.2657 and 1.5943. Since correlation coefficient (r) is less than 6 times the value of P.E., the correlation coefficient is insignificant and unreliable. The correlation coefficient of NABIL is.0.2142 and its P.E. is 0.2878 and 6P.E. is 1.7269. 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 NPL 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 0.9677. It is more than six times the value of P.E. Hence its correlation coefficient is said to be significant.

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 4.9

Correlation between Deposit & Loans and Advances and Deposit

Banks	Correlation Coefficient (r)	Probable Error (P.E.)	6 * P.E
NIBL	0.9993	0.0004	0.0027
NABIL	0.9941	0.0036	0.0213
NBBL	0.978	0.0129	0.0773

(Source: Appendix- 7,8 & 9)

The above table shows the correlation coefficient, probable error and six times the value of three Banks. 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 0.9993, 0.9941 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.

4.3 Correlation between average interest rate and average loan amount:

The correlation describes the relationship between average loan amount of three banks ie NABIL, NIBL and NBBL average interest rate of same three banks. How a unit increment in loan amount affects the interest rate is measured by this correlation. Here interest rate is independent variable and loan amount is dependent.

Here $r=-0.59$ (Appendix 14)

Here the relationship between interest rate and loan amount is negative. This negative relationship indicates that decrease in interest rate leads to increase in loan amount and increase in interest rate leads to decrease in loan amount.

4.4 Trend Analysis

Trend analysis is a statistical tool, which helps to forecast the future values of different variables on the basis of past tendencies of variable. Trend analysis informs about the expected future values of various variables. Amongst the various methods to determine trend the least square method is widely used in practices. Hence in this study also least square method has been adopted to measure the trend behaviors of these selected Banks. However, trend analysis is based on the assumption that past tendencies continues in the future. Under this heading the effort has been made to calculate trend values of following variables from mid July 2005 to mid-July 2009 and forecast is done for next five years from mid July 2010 to mid-July 2014.

4.4.1 Trend Analysis of Loans and Advances

The values of average loans and advances (a), rate of change of loans and advances (b) and trend values of loans and advances of three Banks for 10 years from mid July 2005 to mid-July 2014 are as follows

Table 4.10

Trend Values of Loans & Advances

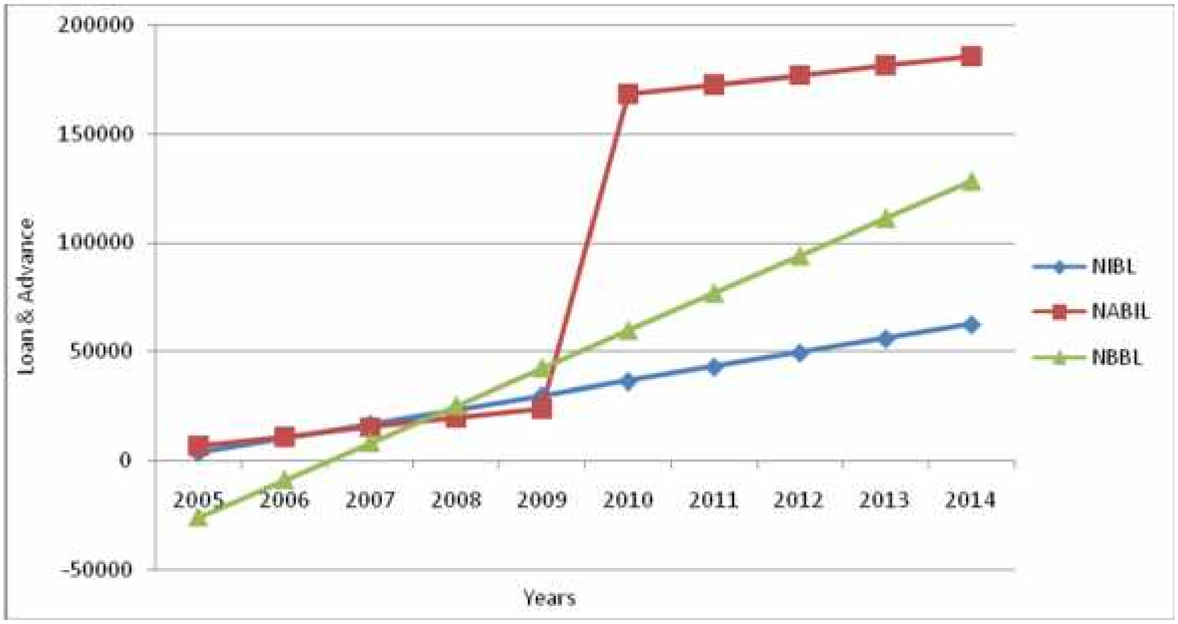
(In Million Rs)

Years (Mid July)	Banks		
	NIBL a = 16995.8 b = 6512.2	**NABIL a = 15253.6 b = 4303.8**	**NBBL a =8389.8 b = 17140.6**
2005	3971.4	6646	-25941.4
2006	10483.6	10949.8	-8800.8
2007	16995.8	15253.6	8339.8
2008	23508	19557.4	25480.4
2009	30020.2	23861.2	42621
2010	36532.4	168165	59811.6
2011	43044.6	172468.8	76952.2
2012	49556.8	176772.6	94092.8
2013	56069	181076.4	111233.4
2014	62581.2	185380.2	128374

(Source: Appendix- 10

Figure 4.7

Trend Values of Loans & Advances



The above table and figure shows that all three banks i.e. NABIL, NIBL and NBBL has increasing trend of loans and advances. The average loans and advances of NIBL is Rs 16995.8 which is increasing at the rate of Rs 6512.2 million every year. Loans and advances are expected to increase from Rs 30020.2 in 2009 to Rs 62581.2 million in 2014. NABIL's average loans and advances is Rs 15253.6 and are increasing every year at the rate of Rs 4303.8 million Hence the expected loans and advances of NABIL are supposed to increase from Rs 23861.2 in 2009 to Rs 185380.2 million in 2014. However, the average loans and advances of NBBL is Rs 8389.8 million, which is increasing every year at the rate of Rs 17140.6 million. Accordingly loans and advances of NBBL is expected to be increase from Rs 42621 million in 2009 to Rs 128374 million in 2014.

4.4.2 Trend Analysis of Non-Performing Assets (Loan)

The calculated values of average Non Performing Loan (a), rate of change of NPA (b) and trend values of NPA for 10 years from mid July 2005 to mid-July 2014 are as follows

Table 4.11

Trend Values of Non-Performing Loan

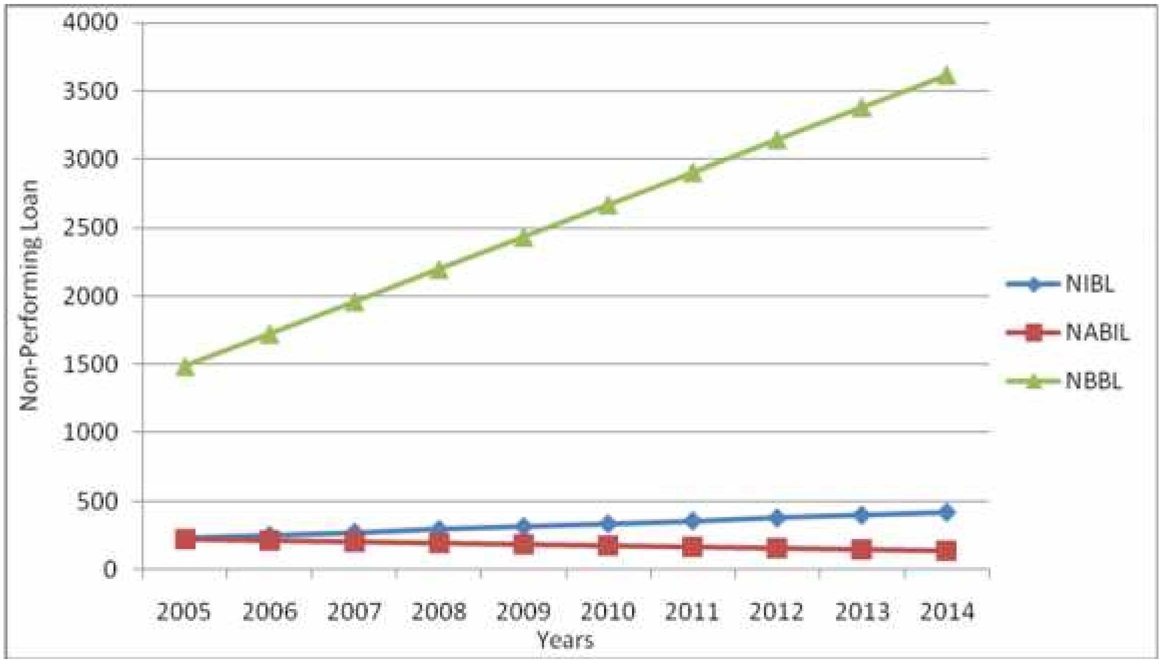
(In Million Rs)

	Banks		
Years (Mid July)	**NIBL a = 274 b = 20.7**	**NABIL a =203.6 b = (9.1)**	**NBBL a = 1959.8 b = 237.1**
2005	232.6	221.8	1485.6
2006	253.3	212.7	1722.7
2007	274	203.6	1959.8
2008	294.7	194.5	2196.9
2009	315.4	185.4	2434
2010	336.1	176.3	2671.1
2011	356.8	167.2	2908.2
2012	377.5	158.1	3145.3
2013	398.2	149	3382.4
2014	418.9	139.9	3619.5

(Source: Appendix - 11)

Figure 4.8

Trend Values of Non-Performing Loan



The table and figure shows that NABIL has decreasing trend but NIBL and NBBL have increasing trend of NPL. The average NPA of NABIL is Rs 203.6, which is decreasing at the rate of Rs 9.1 million every year. NPL is expected to decrease from Rs 185.4 million in 2009 to Rs 139.9 million in 2014. NIBL's average NPA is Rs 274, which is increasing every year at the rate of Rs 20.7 million. Hence the expected NPA of NABIL is supposed to increase from Rs 315.4 million in 2009 to Rs 418.9 million in 2014. The average NPA of NBBL is Rs 1959.8 million, which is increasing every year at the rate of Rs 237.1 million. Accordingly NPA of NBBL is expected to increase from Rs 2434 million in 2009 to Rs 3619.5 million in 2014.

NBBL has significantly high non-performing loan in the total volume of loans and advances and its rate of increment is also very high. If this trend continues, it would lead the Bank to the verge of Bankruptcy affecting several parties of the society. Hence immediate reform should be initiated. Due to NABIL's recovery efforts through establishment of Recovery Cell; its NPL has come down in recent years. Hence NABIL shows decreasing trend of NPA. Even though NPA of NIBL is relatively lower, it shows increasing trend. If this trend continues, not only NBBL but also NIBL will also be severely affected by the problem of increasing non-performing loan.

4.4.3 Trend Analysis of Loan Loss Provision

The calculated values of average Loan Loss Provision (a), rate of change of LLP (b) and trend values of LLP for 10 years from mid July 2004 to mid-July 2013 of the three Banks are as follows

Table 4.12

Trend Values of Loan Loss Provision

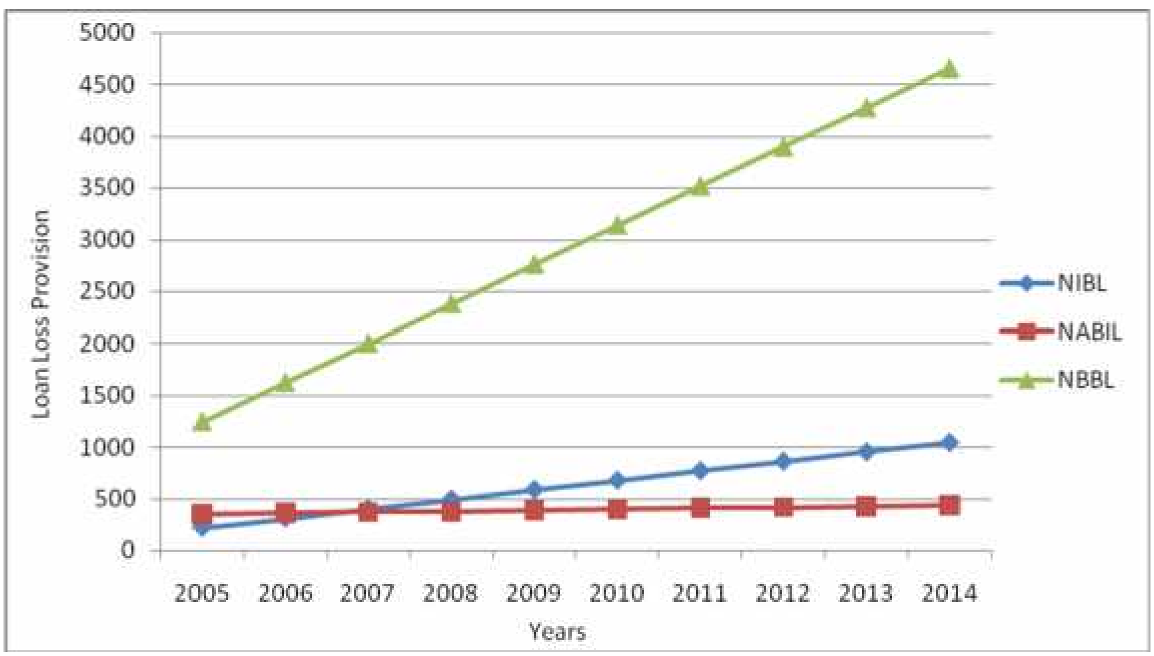
(In Million Rs)

Years (Mid July)	Banks		
	NIBL a =401.2 b =91.2	**NABIL a = 368.4 b = 9.6**	**NBBL a = 2004.4 b = 379**
2005	218.8	349.2	1246.4
2006	310	358.8	1625.4
2007	401.2	368.4	2004.4
2008	492.4	378	2383.4
2009	583.6	387.6	2762.4
2010	674.8	397.2	3141.4
2011	766	406.8	3520.4
2012	857.2	416.4	3899.4
2013	948.4	426	4278.4
2014	1039.6	435.6	4657.4

(Source: Appendix - 12)

Figure 4.9

Trend Values of Loan Loss Provision



The above table and figure shows that all three banks has increasing trend. The average LLP of NIBL is Rs 401.2, which is increasing at the rate of Rs 91.2 million every year. LLP is expected to increase from Rs 583.6million in 2009 to Rs 1039.6 million in 2014. The average LLP of NABIL is Rs 368.4, which is increasing every year at the rate of Rs 9.6 million. Hence the expected LLP of NABIL is supposed to increase from Rs 387.6 million in 2009 to Rs 435.6 million in 2014. The average LLP of NBBL is Rs 2004.4 million, which is increasing every year at the rate of Rs 379 million. Accordingly LLP of NBBL is expected to increase from Rs 2762.4 million in 2009 to Rs 4657.4 million in 2014.As NBBL is suffering from the problems of bad debts, they have huge amount of Non-performing loan. Higher the non-performing loan higher would be the LLP. Hence its LLP shows increasing trend. NABIL's slightly lower increasing trend of LLP shows that it is successful in reducing the non-performing loans of the Bank.

4.4.4 Trend Analysis of Net Profit

The calculated values of average Net Profit (a), rate of change of Net Profit (b) and trend values of Net Profit for 10 years from mid July 2004 to mid-July 2013 of the three Banks are as follows

Table 4.13

Trend Values of Net Profit

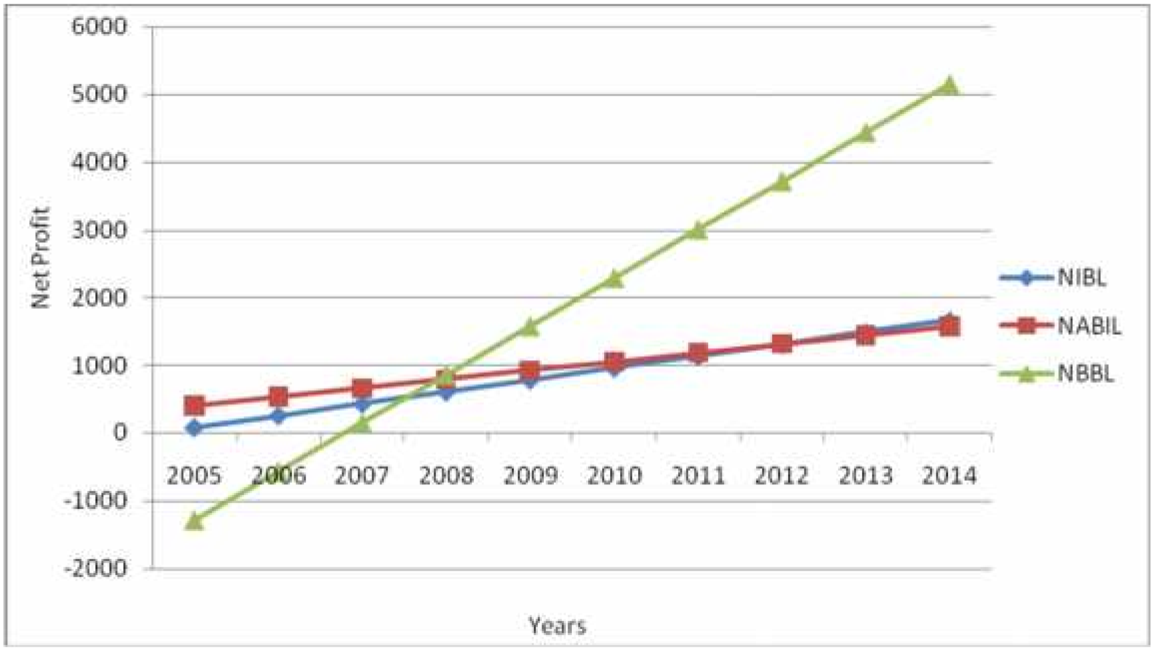
(In Million Rs)

Years (Mid July)	Banks		
	NIBL a =427.4 b =176.7	NABIL a =663 b =130.6	NBBL a =152.4 b =713.8
2005	74	401.8	-1275.2
2006	250.7	532.4	-561.4
2007	427.4	663	152.4
2008	604.1	793.6	866.2
2009	780.8	924.2	1580
2010	957.5	1054.8	2293.8
2011	1134.2	1185.4	3007.6
2012	1310.9	1316	3721.4
2013	1487.6	1446.6	4435.2
2014	1664.3	1577.2	5149

(Source: Appendix - 13)

Figure 4.10

Trend Values of Net Profit



The above table and figure shows that except NBBL, NIBL and NABIL Banks have increasing trend of Net Profit. NIBL's average NP is Rs 427.4 million, which is increasing every year at the rate of Rs.176.7 million. Hence the expected NP of NIBL is supposed to increase from Rs 780.8 million in 2009 to Rs 1664.3 million in 2014. NABIL's average NP is Rs 663 million, which is increasing every year at the rate of Rs 130.6 million. Hence the expected NP of NABIL is supposed to increase from Rs 924.2 million in 2009 to Rs 1577.2 million in 2014. Since NBBL is in loss, for initial two years. The average net Profit of NBBL is Rs 152.4 million, which is increasing every year at the rate of Rs.713.8 million. The expected Net Profit of NBBL in the year 2014 would reach at Rs.5149 million. NBBL may come into the profit if the present NPA gets realized. The above figures depicts that NABIL is ahead in generating net profit However among the three Banks, NBBL has the highest growth rate.

4.5 Analysis of Loan Classification and Loan Loss Provisioning Directives

Nepal Rastra Bank, central bank of Nepal issues and amends various directives regarding banking regulation from time to time in order to streamline the financial activities and rescue the banks from financial crisis. In 2001, NRB amended several old directives and issued many new circulars regarding banking regulation and operation. In this course the directive regarding loan classification and provisioning was also changed. As per old provision, which remained in force for about 10 years, the loan was categorized into two groups, namely large loans and small loans. The entire loan below Rs 100000 was categorized under small loan and rest as large loans. The classification of large loans were to be made in six categories on the basis of some clearly defined and some not so clearly defined parameters while some loans were categorized on the basis of period of past due. The directives were not clear where the borrower had wide fluctuation with respect to some financial indicators. In such case the borrower would qualify for different ratings under each indicator. Due to these difficulties the new loan classification and provisioning came in effect from July 16, 2001. The table no. 14 presents the major changes brought by the new directives issued in 2001.

Table 4.14

Comparative Table of Loan Classification and Provisioning

Area of Changes	**Old Directive (Effective from March 22, 1991 to July 15, 2001)**	**New Directive (Effective from July 16, 2001 onwards)**
Basis of classification	Classification to be made on the basis of ageing of past dues for small loans and on the basis of certain financial relations for large loans.	Classification to be made on the basis of ageing of past dues for all loans.
Loan Categorization and Provisioning	Loans are to be classified into six Categories with following percent of Provision. **Loan Category** — **Provision** Good — 1% Acceptable — 1% Evidence of Sub-standard — 5% Sub-standard — 25% Doubtful — 50% Bad — 100%	Loans are to be classified into four Categories with following percent Provision. **Loan Category** — **Provision** Pass — 1% Sub-standard — 25% Doubtful — 50% Loss — 100%
Over due period	**Loan category** — **Overdue period** Good — Not Overdue Acceptable — upto 1 month Evidence of Sub-standard — 1 to 6 months Sub-standard — 6 months to1 year Doubtful — 1 year to 5 year Bad — more than 5 Years The period of overdue of each category of loan is longer.	**Loan category** — **Overdue period** Pass — not overdue and Due upto 3 mths Sub-standard — 3 to 6 months Doubtful — 6 months to 1 year Loss — more than 5 years The period of overdue of each category of loan is longer.

(Source: NRB Directives)

The above table 4.14 exhibits that the present directives of loan classification and provisioning is tighter than previous one. Hence this leads to increment in loan loss provision requirement. However in the present context where Nepalese banking sector is severely affected by increasing non-performing loan, tightening loan loss provisioning requirements on loans and advances is essential to safeguards banks from crisis and to ensure that the banks remain liquid even during economic downturns.

4.6 Analysis of Classification of Loans and Provisioning as per new Directive

As per the new directive, loans and advances are to be classified into four categories, namely pass, substandard, doubtful and loss on the basis of ageing past dues with provisioning of 1%, 25%, 50% and 100% respectively. Beside this in case of insured priority sector and deprived sector loan, the provisioning requirement is one-fourth of that of normal loan loss provisioning requirement. Hence the respective provisioning requirement for pass, substandard, doubtful and loss loan are 0.25%, 6.25%, 1250% and 25% respectively of the loan outstanding. In case of rescheduled and restructured or swapped loan, if such loan falls under pass category, the minimum provisioning requirement is 12.50% and if this is in the priority sector loan 3.125% should be provided for the probable loss. Further if the loan is granted only against personal guarantee, where the loan falls under the category of pass, substandard and doubtful in addition to the normal loan loss provision applicable for the category, an additional 20% must be provided. Hence in this case the provisioning required for pass, substandard and doubtful is 21%, 45% and 70% respectively. Hence it can be concluded that loan loss provision required for different category of loan ranges as follows:

Loan Category	**Loan Loss Provision (range)**
Pass	0.25% to 21.00%
Substandard	6.25% to 45.00%
Doubtful	2.50% to 70.00%
Loss	25.00% to 100.00%

In addition loans and advances have to be classified on the basis of other factors too like CIB blacklisting, collateral value, misuse of fund, bankruptcy of the borrowers etc. The loan falling under pass category is termed as performing loan and the loan falling under remaining categories is termed as Non-Performing loans. The Loan Loss Provision (LLP) set aside for performing loan is defined as General Loan Loss Provision (GLLP) and LLP set aside for Non-Performing Loan is defined as Specific Loan Loss Provision (SLLP). Beside this if a bank provides any provision in excess of the proportion required under the directives NRB, the whole amount of such additional provision may be included in GLLP. If it is appropriate in the views of the bank management, there is not restriction in the classifying of loan and advances from low risk category to high risk category. For instance, loans falling under substandard may be classified into doubtful or loss and loans falling under doubtful may be classified into loss category. The term loan and advances also include bills purchased and discounted. The new directive issued in 2001, regarding loan classification and provisioning was effective from fiscal year 2001/02

4.7 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%, 59.18% and 65.08% 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%, 69% &72% respectively. The average ratio of all three banks are nearly same. Even though this ratio is the least of NABIL, it has the most consistent and least deviated ratio during the study period whereas NBBL has higher deviation and variability in this ratio. NIBL is moderate among the three Banks in terms of deviation and variability of ratio.

- The analysis of non-performing loans to total loans revealed that, average NPA of NIBL, NABIL & NBBL is 2%, 2% &72% of total loan respectively. That means 98%, 98% &28% of total loan of NIBL, NABIL & NBBL is performing loan. Amongst three Banks, NIBL and NABIL has significantly same proportion of the non-performing loan in the total loans portfolio. Higher ratio implies higher portion of NPL in the total loan portfolio. Higher ratio implies the bad quality of assets of banks in the form of loan and lower return from the loan portfolio and lower ratio implies good quality of loan. Hence lower NPL to total credit ratio is preferred.
- Loan Loss Provision ratio of NBBL is found to be significantly higher which is around 23% in average followed by NABIL and NIBL the same average of 3% . 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. 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 153%, 190% &102% 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 average interest rate and the loan amount of the banks are negative in relationship. People lend loan if the interest rate is low and they minimized if interest rate is high.
- The main objective of commercial Banks is to earn profit through mobilization of fund. NABIL with an average of 4.57% return on loans and advances has the highest ratio as it is ahead in generating net profit. NBBL is moderate with an average of 4.06% return on loans and advances. NIBL has the lowestratio of 2.45%.

- The correlation coefficient between LLP and loans and advances of NIBL, NABIL & NBBL: is 0.1572,0.9070 and 0.9896. Here correlation coefficient of NIBL is less than the value of 6 times P.E, it is insignificant and there is no evidence of correlation. Since higher provision has to be provided for non-performing loan, the high positive correlation of NBBL is the result of high non-performing loans in the total loan portfolio. Hence the increase in provision of NBBL is due to increment in loans and advances but due to increment in its non-performing loans. NABIL has positive correlation between LLP and loans and advances but it is significant. However LLP of NBBL is highly correlated with loans and advances and its correlation coefficient is significant and reliable.
- The correlation between LLP and NPL reveals that there is positive correlation between LLP and NPL in all the three Banks. As earlier mentioned higher provision needs to be provided for NPL, higher the NPL higher would be the LLP. The correlation coefficient between these two variables in NIBL, NABIL & NBBL is 0.3451, 0.2142 and 0.9677. The correlation coefficient of NIBL and NABIL is insignificant but that of NBBL is significant.
- 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 0.9993, 0.9941 and 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.
- Trend analysis was done based on the data of past five years and forecast was made for next five years. The trend of loans and advances showed increasing trend in all three banks. The loans and advances of NIBL, NABIL and NBBL is increasing at the rate of Rs 6512.2, 4303.8 and 17140.6 million every year respectively.
- 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 9.1 million every year and that of NIBL & NBBL is increasing at the rate of Rs 20.7 million and 237.1 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.

- From the trend analysis of LLP, it is found that LLP is expected to increase in coming years in case of all banks i.e. NIBL, NBBL and NABIL The LLP of NIBL,NABIL and NBBL is increasing at the rate of Rs 91.2,9.6 and379 million every year respectively.
- From the trend analysis of Net Profit, it is found that NP is expected to increase in coming years in three Banks i.e. NIBL, NABIL and NBBL. It shows increment of net profit at the rate of Rs 176.7, 130.6 and 713.8 million each year respectively. However, NBBL growth of net profit is drastically high as compared to other banks.
- 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 26 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. Only secondary data have been used in the study for that annual reports 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.

NBBL and NIBL have the highest proportion of the loans and advances in the total asset structure but NABIL has relatively lower loans and advances in the total asset structure. The credit deposit ratio also shows increasing trend of two Banks (NIBL & NABIL) and decreasing trend of NBBL. It indicates the risk diversification and minimization attitude of the management of NABIL. There is higher proportion of non-performing assets (loan) in the total loans and advances of NBBL, which comes around 72% on average, which is very much higher than the acceptable standard of minimum 10%. Since higher provision has to be apportioned for NPA, its loan loss provision is also significantly higher than the other two Banks. Regarding NPA and LLP, NIBL and NABIL has the equal average. The modern credit analysis approach applied by NABIL towards lending has made this Bank successful to have low ratio of provisioning and lower ratio of non-performing loans.

Even though, NBBL has the highest proportion of their investment in the most income generating asset, the Bank is in loss for two years (2006 and2007). Most of the loans of NBBL have at risk zone and become non-performing and hence it is not generating any income instead demanded high provision for probable loss. Although there is moderate return on loans and advances in NBBL. Even NIBL has lowest proportion of investment in loans and advances in comparison to NABIL and NBBL, its return on loans and advances is comparatively lower. However the high return of NABIL is not due to its proper lending function but due to low deposit cost, high fee based income, high yield on lending, high foreign currency deposit, foreign exchange earnings and high foreign trade income (LC) etc.

There is high positive correlation between LLP and loans and advances in NIBL & NABIL but these two variables shows less positive correlation in case of NBBL. This is due to increment of non-performing assets (loan) of NBBL. Amount to be provisioned depends upon the non-performing assets (loan) and its quality. Higher provision has to be provided for NPA. Hence even though loans and advances do not increase, if in the same loan portfolio NPA increases, LLP will increase. This has also been shown by the positive correlation between LLP and NPL in three Banks,. Similarly, all three Banks

NIBL, NABIL and NBBL have shown highly positive correlation between loans and advances and deposit.

The trend analysis of loans and advances shows increasing trend in case of all three banks NIBL, NABIL and NBBL. The trend analysis of Non-performing loan and Loan Loss Provision shows increasing trend in NBBL and even in NIBL whereas NABIL shows decreasing trend in coming years. This is due to NABIL's recovery efforts towards reducing NPL through establishment of Recovery Cell. The past trend of net profit of the entire three Banks exhibits increasing trend in coming years.

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.

5.2 Conclusion

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 Bankers 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 NBBL 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

- 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.
- 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.
- 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.
- 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.

- 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.
- 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.
- 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.
- The ratio of provision held to non-performing loan of NABIL and NIBL is relatively same in comparison to NBBL. Even though NABIL and NIBL 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 and NIBL is recommended to increase this ratio by reducing non-performing loan.
- 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.

BIBLIOGRAPHY

Books:

Bajracharya, B.C. (1996). *Business Statistics and Mathematics*. Kathmandu: M.K Publishers and Distributers.

Dahal, B. & Dahal, S. (2002). *A Hand Book of Banking*. Kathmandu: Asmita Publication.

Gupta, S.C. (1992). *Fundamental of Statistics.* Bombay: Himalaya Publishing House.

Gupta, S.P. (1997). *Statistical Method.* New Delhi: Sultan Chand & Publishers.

Joshi, P.R. (2001). *Research Methodology.* Kathmandu: Buddha Academic Publishers & Distributors Pvt. Ltd.

Kothari, C.R. (1984). *Quantitative Techniques.* New Delhi: Vikash Publishing House Pvt. Ltd.

Pandey, I.M. (1999). *Financial Management* . New Delhi: Vikash Publishing House.

Pant, P.R. (1998). *Fieldwork Assignment and Report Writing.* Kathmandu: Veena Academic Enterprises Pvt. Ltd.

Radhaswami, M. &Vasudevan, S.V. (1984). *A Text Book of Banking (Law, Practice & Theory of Banking).* New Delhi: S. Chand and Co. Pvt. Ltd.

Shrestha, S. & Silwal, D.P. (2002). *Statistical Methods in Management.* Kathmandu: Taleju Prakashan.

Sthapit, A.B., Gautam, H., Joshi, P.R., & Dongol, P.M. (2003).*Statistical Methods.* Kathmandu: Buddha Academic Publishers & Distributors Pvt. Ltd.

Timilsina, Y. (1997). *Banking Business in Nepal.* Kathmandu: Ratna Pustak Bhandar.

Vaidya, S. (1998). *Project Failures and Sickness in Nepal, Challenges to Investors for Investment Risk Management.* Kathmandu: Monitor Nepal.

Weston, J.F. & Copeland, T.E. (1990). *Managerial Finance.* New York: The Dryden Press.

Wild, J.J., Subramanyam, K.R., & Haskey, R.F. (2003).*Financial Statement Analysis.* USA: McGraw Hill International.

Wolff, H.K., & Pant, P.R. (2002).*A Hand Book for Social Science Research and Thesis Writing.* Kathmandu: Buddha Academic Publishers & Distributors Pvt. Ltd.

Journals/Articles

Bhattarai, N. (2003). I Took up This New Job Because I Eager for Challenges.*Business Age*, Vol.5 No. 30 P.74.

Chhetri, D.B. (2000).Non-Performing Assets: A Need for Rationalization.*Nepal Rastra Bank Samachar.* P. 17-21.

Dhungana, B.R. (2001*). Why Asset Management Company is Considered the Best Option to Resolve the Non Performing Loan Problem. Banking Prabardhan.* 13, P. 125-127.

Editorial, F. (2003).Asset Management Company: East Asia's Experience.*Nepal Bank Limited Newsletter*. No. 10, P. 2.

Ghimire, B. R. (2003). Credit Sector Reform and NRB.*New Business Age*. P. 47-49

Khatiwada, Y. (2002). Liberalization Was Not Done in Proper Sequence.*New Business Age.*P. 34.

Neupane, H. P. (2003). *Bad Loans of Banking Sector – Challenges & Efforts to Resolve It. Nepal Rastra Bank Samachar.*P.141-146

Pandit, G. (2002). Legal Complication between Deloitte and NRB.*Business Age*. Vol. 4, No. 8, P.31.

Pant, S. D. (2001). Banking Industry is Not Robust.*Business Age.*Vol. 3, No. 9, P.31.

Rana, Himalaya S.J.B. (2003). Golden Days are Gone.*New Business Age*, P. 35

Sapkota, N. (2004). Portion of NPA in Commercial Banks-High in Public, Low in Private.*Rajdhani*, P.5.

Sapkota, S. (2001). *Doubtful Debtors and New Changed Provisions.Nepal Bank Patrika*, P.47-50

Sharma, N., & Phulara, B.D. (2003). Failed State Vis-à-vis Failed Banking System.*Business Age.* Vol. 5, No. 2, P.41-43

Shrestha, S. R. (1999). *Modus Operandi of Risk Appraisal & In Bank Lending.Banking Prabardhan 8*, P.55-64.

Other Reports

NABIL Bank Limited (2004/05-2008/09).*Annual Report.*Kathmandu.

Nepal Bangladesh Bank Limited (2004/05-2008/09).*Annual Report*.Kathmandu.

Nepal Investment Bank Limited (2004/05-2008/09).*Annual Report*.Kathmandu.

Nepal Rastra Bank (July, 2007). *Banking and Financial Statistics.*Kathmandu. Vol.42, p.35

Nepal Rastra Bank Circulars (2001). No. 71/058.

Thesis:

Bhattarai, S. (2004). *Implementation of Directives Issued by Nepal Rastra Bank, A Comparative Study of Nepal SBI Bank Limited & Nepal Bangladesh Bank Limited.* (Unpublished Master's Thesis), Central Department of T.U.: Kathmandu.

Gimire,G. (2005). on *Non- Performing Assets of Commercial Bank.* (Unpublished Master's Thesis), Shanker Dev Campus: Kathmandu.

Khadka, D.K. (2007). *Non-Performing Assets of Nepalese Commercial Banks*. (Unpublished Master's Thesis), Central Department of T.U.: Kathmandu.

Koirala,S. (2006). has conduct research on *Non Performing Assets and Profitability of Commercial Banks.* (Unpublished Master's Thesis), Shanker Dev Campus: Kathmandu.

Pradhan, K. (2008). *A study on Non- Performing Assets of Commercial Bank with references to SCBNL, RBB, Everest Bank, NB Bank and NBBL*. (Unpublished Master's Thesis), Shanker Dev Campus: Kathmandu.

Shrestha, N. (2004). *A Study on Non-Performing Loan and Loan Loss Provisioning of Commercial Banks with reference to Nepal Bank Ltd, NABIL Bank Ltd*. (Unpublished Master's Thesis), Central Department of T.U.: Kathmandu.

Websites:

www.nabilbankltd.com

www.nabilbankltd.com

www.nbblbankltd.com

www.nepalnews.com

www.nepalstock.com

www.nrb.org.com

APPENDICES

Appendix – 1

Coefficient of Correlation between LLP and Loan and Advances of NABIL

F/Y	**Loan loss provision (x)**	**Loan & advances (y)**	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	**XY**
2004-05	359	8549	-9.4	128881	-6704.6	73085401	63023.24
2005-06	361	10947	-14892.6	130321	10946.09303	119836809	-163015785
2006-07	356	13279	355.0930276	126736	13278.1774	176331841	4714988.215
2007-08	357	15903	356.1774011	127449	15902.92066	252905409	5664260.951
2008-09	409	27590	408.9206614	167281	27589.94649	761208100	11282099.16
Total	1842	76268	-13781.8089	680668	61012.53758	1383367560	-141291413.5

Calculation of Mean of Loan Loss Provision $(\bar{x})$ and Loan and Advances $(\bar{y})$

$$\bar{x} = \frac{x}{n} = 368.4 \qquad \bar{y} = \frac{y}{n} = 15253.6$$

Coefficient of Correlation (r):

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

$r = 0.9070$

Coefficient of Determination (r^2) = 0.8226

Probable Error (P.E) = $0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.0535$

6(P.E) = 0.321

Appendix – 2

Coefficient of Correlation between LLP and Loan and Advances of NBBL

F/Y	Loan loss Provision (x)	Loan & Advances (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	995	9645	-3462.6	990025	-11389.6	93026025	39437628.96
2005-06	1839	9627	-19195.6	3381921	9626.010375	92679129	-184777044.8
2006-07	2971	9796	2970.010375	8826841	9795.020642	95961616	29091312.93
2007-08	2112	5855	2111.020642	4460544	5854.990768	34281025	12360006.37
2008-09	14371	70250	14370.99077	206525641	70249.99377	4935062500	1009562012
Total	22288	105173	-3206.17821	224184972	84136.41556	5251010295	905673915.5

Calculation of Mean of Loan Loss Provision $(\bar{x})$ and Loan and Advances $(\bar{y})$

$\bar{x} = \frac{x}{n} = 4457.6$ $\bar{y} = \frac{y}{n} = 21034.6$

Coefficient of Correlation (r):

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

$r = 0.9896$

Coefficient of Determination (r^2) = 0.9794

Probable Error (P.E) = 0.6745 $\times \frac{1 - r^2}{\sqrt{n}} = 0.0062$

6(P.E) = 0.0374

Appendix – 3

Coefficient of Correlation between LLP and Loan and Advances of NIBL

F/Y	Loan loss provision (x)	Loan & advances (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	208	7338	-193.2	43264	-9657.8	53846244	1865886.96
2005-06	327	10453	-10668.8	106929	10453.70649	109265209	-174223908.7
2006-07	402	13178	401.8427545	161604	13177.50087	173659684	5285324.396
2007-08	483	17769	482.9752738	233289	17768.776	315737361	8567887.216
2008-09	586	36241	585.563831	343396	36240.84891	1313410081	21234211.78
Total	2006	84979	-9391.61814	888482	67983.03227	1965918579	-137270598.4

Calculation of Mean of Loan Loss Provision $(\bar{x})$ and Loan and Advances $(\bar{y})$

$\bar{x} = \frac{x}{n} = 401.2$ $\qquad\qquad$ $\bar{y} = \frac{y}{n} = 10995.8$

Coefficient of Correlation (r):

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

$r = 0.1572$

Coefficient of Determination (r^2) = 0.0247

Probable Error (P.E) = $0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.2942$

6(P.E) = 1.7652

Appendix – 4

Coefficient of Correlation between LLP and NPL of NABIL

F/Y	Loan Loss Provision (x)	Non-Performing Loans (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	359	287	-9.4	128881	83.4	82369	-783.96
2005-06	361	145	157.4	130321	144.7857719	21025	22789.28049
2006-07	356	183	355.7857719	126736	182.9541063	33489	65092.46793
2007-08	357	178	356.9541063	127449	177.5732977	31684	63385.51779
2008-09	409	225	408.5732977	167281	224.7121893	50625	91811.40022
Total	1842	1018	1269.313176	680668	813.4253652	219192	242294.7064

Calculation of Mean of Loan Loss Provision $(\bar{x})$ and Non-performing Loan $(\bar{y})$

$\bar{x} = \frac{x}{n} = 368.4$ $\qquad\qquad$ $\bar{y} = \frac{y}{n} = 203.6$

Coefficient of Correlation (r):

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

r = 0.2142

Coefficient of Determination (r^2) = 0.0459

Probable Error (P.E) = $0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.2878$

6(P.E) =1.7269

Appendix – 5

Coefficient of Correlation between LLP and NPL of NIBL

F/Y	Loan Loss Provision (x)	Non-Performing Loans (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	208	181	-193.2	43264	-93	32761	17967.6
2005-06	327	281	53	106929	280.6548556	78961	14874.70735
2006-07	402	272	401.6548556	161604	271.8808753	73984	109202.2737
2007-08	483	422	482.8808753	233289	421.6060486	178084	203585.4978
2008-09	586	214	585.6060486	343396	213.7342798	45796	125164.087
Total	2006	1370	1329.94178	888482	1094.876059	409586	470794.1659

Calculation of Mean of Loan Loss Provision $(\bar{x})$ and Non-performing Loan $(\bar{y})$

$\bar{x} = \frac{\sum x}{n} = 401.2$ $\qquad\qquad$ $\bar{y} = \frac{\sum y}{n} = 274$

Coefficient of Correlation (r):

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

r = 0.3451

Coefficient of Determination (r^2) =0.1191

Probable Error (P.E) = 0.6745 $\times \frac{1 - r^2}{\sqrt{n}} = 0.2657$

6(P.E) =1.5943

Appendix – 6

Coefficient of Correlation between LLP and NPL of NBBL

F/Y	**Loan Loss Provision (x)**	**Non-Performing Loans (y)**	$X = x - \bar{x}$	**X^2**	$Y = y - \bar{y}$	**Y^2**	**XY**
2004-05	995	1042	-1009.4	990025	-917.8	1085764	926427.32
2005-06	1839	1832	-120.8	3381921	1831.032264	3356224	-221188.6975
2006-07	2971	2927	2970.032264	8826841	2926.063487	8567329	8690502.961
2007-08	2112	2236	2111.063487	4460544	2235.971607	4999696	4720278.017
2008-09	2105	1762	2104.971607	4431025	1761.980849	3104644	3708919.659
Total	10022	9799	6055.867357	22090356	7837.248206	21113657	17824939.26

Calculation of Mean of Loan Loss Provision $(\bar{x})$ and Non-performing Loan $(\bar{y})$

$\bar{x} = \frac{x}{n} = 2004.4$ $\qquad\qquad$ $\bar{y} = \frac{y}{n} = 1959.8$

Coefficient of Correlation (r):

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

r = 0.9677

Coefficient of Determination (r^2) = 0.9365

Probable Error (P.E) = 0.6745 $| \frac{1 Z r^2}{\sqrt{n}} X 0.0191$

6(P.E) =0.1149

Appendix – 7

Coefficient of Correlation between Deposit and Loan and Advances of NABIL

F/Y	Deposit (x)	Loan and Advances (y)	$X X x Z \overset{z}{x}$	X^2	$Y X y Z \overset{z}{y}$	Y^2	XY
2004-05	14119	8549	-7629.6	199346161	-6704.6	73085401	51153416.16
2005-06	14587	10947	-666.6	212780569	10946.006	119836809	-7296607.535
2006-07	19347	13279	19346.0059	374306409	13278.012	176331841	256876494.1
2007-08	23342	15903	23341.01177	544848964	15902.995	252905409	371191987.3
2008-09	37348	27590	37347.99474	1394873104	27589.996	761208100	1030431042
Total	108743	76268	71738.81241	2726155207	61012.409	1383367560	1702356332

Calculation of Mean of Deposit $(\overset{z}{x})$ and Loan and Advances $(\overset{z}{y})$

$\overset{z}{x} \; X \; \frac{x}{n} \; X 21748.6$ $\qquad$ $\overset{z}{y} \; X \; \frac{y}{n} \; X 15253.6$

Coefficient of Correlation (r):

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

$r = 0.9941$

Coefficient of Determination (r^2) = 0.9882

Probable Error (P.E) = $0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.0036$

6(P.E) =0.0213

Appendix – 8

Coefficient of Correlation between Deposit and Loan and Advances of NIBL

F/Y	Deposit (x)	Loan and Advances (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	11525	7338	-11653.6	132825625	-9657.8	53846244	112548138.1
2005-06	14255	10453	-2740.8	203205025	10452.001	109265209	-28646843.63
2006-07	18927	13178	18926.00074	358231329	13177.001	173659684	249387939.7
2007-08	24488	17769	24487.00148	599662144	17768.999	315737361	435109513.1
2008-09	46698	36241	46697.99934	2180703204	36241	1313410081	1692382173
Total	115893	84979	75716.60156	3474627327	67981.201	1965918579	2460780920

Calculation of Mean of Deposit $(\bar{x})$ and Loan and Advances $(\bar{y})$

$\bar{x} = \frac{\sum x}{n} = 23178.6$ $\qquad$ $\bar{y} = \frac{\sum y}{n} = 16995.8$

Coefficient of Correlation (r):

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

$r = 0.9993$

Coefficient of Determination (r^2) = 0.9985

Probable Error (P.E) = $0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.0004$

6(P.E) =0.0027

Appendix – 9

Coefficient of Correlation between Deposit and Loan and Advances of NBBL

F/Y	Deposit (x)	Loan and Advances (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	12807	9645	1325.8	164019249	1255.4	93026025	1664409.32
2005-06	12125	9627	3735.4	147015625	9626.0216	92679129	35957041.08
2006-07	13015	9796	13014.0216	169390225	9795.0427	95961616	127472897.6
2007-08	9464	5855	9463.04273	89567296	5854.9809	34281025	55405934.35
2008-09	9995	7025	9994.98089	99900025	7024.9871	49350625	70214611.92
Total	57406	41948	37533.24522	669892420	33556.432	365298420	290714894.3

Calculation of Mean of Deposit $(\bar{x})$ and Loan and Advances $(\bar{y})$

$$\bar{x} = \frac{\sum x}{n} = 11481.2 \qquad \bar{y} = \frac{\sum y}{n} = 8389.6$$

Coefficient of Correlation (r):

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

$r = 0.9784$

Coefficient of Determination (r^2) = 0.9573

Probable Error (P.E) = $0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.0129$

6(P.E) =0.0773

Appendix – 10

Correlation coefficient of Average Interest Rate and Average Loan Amount for NABIL, NIBL and NBBL

F/Y	Average loan amt (x)	Average interest rate (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2004-05	8511	10.45	-9250.4	85569900.16	0.34	0.1156	-3145.136
2005-06	10342	10.32	-7419.4	55047496.36	0.21	0.0441	-1558.074
2006-07	12084	9.88	-5677.4	32232870.76	-0.23	0.0529	1305.802
2007-08	13176	10.02	-4585.4	21025893.16	-0.09	0.0081	412.686

2008-09	44694	9.87	26932.6	725364942.8	-0.24	0.0576	-6463.824
Total	88807	50.54	0	919241103.2	-0.01	0.2783	-9448.546

$\bar{x} = \frac{\sum x}{n} = 17761.4$ $\bar{y} = \frac{\sum y}{n} = 10.11$

Coefficient of correlation(r):

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{\left[N\sum x^2 - (\sum x)^2\right]\left[N\sum y^2 - (\sum y)^2\right]}}$$

r = -0.591

Appendix – 11

Trend Analysis of Total Loan and Advances for NABIL, NIBL and NBBL

(Rs. In million)

Year (t)	X=t-2007	X^2	Total Loan and Advances (Y)			XY			Y_c = a + bx		
			NABIL	NIBL	NBBL	NABIL	NIBL	NBBL	NABIL	NIBL	NBBL
2005	-2	4	8549	7338	9645	-17098	-14676	34196	6646	3971.4	-25941.4
2006	-1	1	10947	10453	9627	-10947	-10453	10947	10949.8	10483.6	-8800.8
2007	0	0	13279	13178	9796	0	0	0	15253.6	16995.8	8339.8
2008	1	1	15903	17769	5855	15903	17769	15903	19557.4	23508	25480.4
2009	2	4	27590	36241	7026	55180	72482	110360	23861.2	30020.2	42621
Total	**0**	**10**	**76268**	**84979**	**41949**	**43038**	**65122**	**171406**			

Where,

$$a \, \mathrm{X} \frac{y}{n} \qquad\qquad b \, \mathrm{X} \frac{xy}{x^2}$$

Projected Trend Values of Total Loan and Advances for Next Five Years

Year (t)	X=t-2007	Y_c = a + bx		
		NABIL	NIBL	NBBL
2010	3	168165	36532.4	59811.6
2011	4	172468.8	43044.6	76952.2
2012	5	176772.6	49556.8	94092.8
2013	6	181076.4	56069	111233.4
2014	7	185380.2	62581.2	128374

Appendix – 12

Trend Analysis of Non-Performing Loan for NABIL,NIBL and NBBL

(Rs. In million)

Year (t)	X=t-2007	X^2	Total Loan and Advances (Y)			XY			Y_c = a + bx		
			NABIL	NIBL	NBBL	NABIL	NIBL	NBBL	NABIL	NIBL	NBBL
2005	-2	4	287	181	1042	-574	-362	1148	6646	3971.4	-25941.4
2006	-1	1	145	281	1832	-145	-281	145	10949.8	10483.6	-8800.8
2007	0	0	183	272	2927	0	0	0	15253.6	16995.8	8339.8
2008	1	1	178	422	2236	178	422	178	19557.4	23508	25480.4
2009	2	4	225	214	1762	450	428	900	23861.2	30020.2	42621
Total	**0**	**10**	**1018**	**1370**	**9799**	**-91**	**207**	**2371**			

Where,

$$a \text{ X} \frac{y}{n} \qquad\qquad b \text{ X} \frac{xy}{x^2}$$

Projected Trend Values of Total Non-Performing Loan for Next Five Years

Year (t)	X=t-2007	Y_c = a + bx		
		NABIL	NIBL	NBBL
2010	3	176.3	336.1	2671.1
2011	4	167.2	356.8	2908.2
2012	5	158.1	377.5	3145.3
2013	6	149	398.2	3382.4
2014	7	139.9	418.9	3619.5

Appendix – 13

Trend Analysis of Loan Loss Provision for NABIL,NIBL and NBBL

(Rs. In million)

Year (t)	X=t-2007	X^2	Total Loan and Advances (Y)			XY			Y_c = a + bx		
			NABIL	NIBL	NBBL	NABIL	NIBL	NBBL	NABIL	NIBL	NBBL
2005	-2	4	359	208	995	-718	-416	1436	349.2	218.8	218.8
2006	-1	1	361	327	1839	-361	-327	361	358.8	310	310
2007	0	0	356	402	2971	0	0	0	368.4	401.2	401.2
2008	1	1	357	483	2112	357	483	357	378	492.4	492.4
2009	2	4	409	586	2105	818	1172	1636	387.6	583.6	583.6
Total	**0**	**10**	**1842**	**2006**	**10022**	**96**	**912**	**3790**			

Where,

$$a \text{ X} \frac{y}{n} \qquad\qquad b \text{ X} \frac{xy}{x^2}$$

Projected Trend Values of Loan Loss Provision for Next Five Years

Year (t)	X=t-2007	Y_c = a + bx		
		NABIL	NIBL	NBBL
2010	3	397.2	674.8	3141.4
2011	4	406.8	766	3520.4
2012	5	416.4	857.2	3899.4
2013	6	426	948.4	4278.4
2014	7	435.6	1039.6	4657.4

Appendix – 14

Trend Analysis of Net Profit for NABIL, NIBL and NBBL

(Rs. In million)

Year (t)	X=t-2007	X^2	Total Loan and Advances (Y)			XY			Y_c = a + bx		
			NABIL	NIBL	NBBL	NABIL	NIBL	NBBL	NABIL	NIBL	NBBL
2005	-2	4	455	152	3	-910	-304	1820	401.8	74	-1275.2
2006	-1	1	520	232	-650	-520	-232	520	532.4	250.7	-561.4
2007	0	0	635	351	-1456	0	0	0	663	427.4	152.4
2008	1	1	674	501	393	674	501	674	793.6	604.1	866.2
2009	2	4	1031	901	2472	2062	1802	4124	924.2	780.8	1580
Total	**0**	**10**	**3315**	**2137**	**762**	**1306**	**1767**	**7138**			

Where,

$a \text{ X} \frac{y}{n}$ $\qquad$ $b \text{ X} \frac{xy}{x^2}$

Projected Trend Values of Net Profit for Next Five Years

Year (t)	X=t-2007	Y_c = a + bx		
		NABIL	NIBL	NBBL
2010	3	1054.8	957.5	2293.8
2011	4	1185.4	1134.2	3007.6
2012	5	1316	1310.9	3721.4
2013	6	1446.6	1487.6	4435.2
2014	7	1577.2	1664.3	5149